ICOM

INSTRUCTION MANUAL

VHF MARINE TRANSCEIVERS

IC-M605
IC-M605EURO

Icom Inc.

Thank you for choosing this Icom product.
This product is designed and built with Icom's state of the art technology and craftsmanship.
With proper care, this product should provide you with years of trouble-free operation.

The IC-M605/IC-M605EURO VHF MARINE TRANSCEIVER has DSC functions for distress alert transmission and reception, as well as the general DSC calls (Individual calls, All Ships calls, Group calls, and so on).

IMPORTANT

READ ALL INSTRUCTIONS carefully and completely before using the transceiver.

SAVE THIS INSTRUCTION MANUAL — This instruction manual contains important operating instructions for the IC-M605/IC-M605EURO.

Icom is not responsible for the destruction, damage to, or performance of any Icom or non-Icom equipment, if the malfunction is because of:
- Force majeure, including, but not limited to, fires, earthquakes, storms, floods, lightning, other natural disasters, disturbances, riots, war, or radioactive contamination.
- The use of Icom transceivers with any equipment that is not manufactured or approved by Icom.

EXPLICIT DEFINITIONS

WORD	DEFINITION
⚠**WARNING!**	Personal injury, fire hazard or electric shock may occur.
CAUTION	Equipment damage may occur.
NOTE	If disregarded, inconvenience only. No risk of personal injury, fire or electric shock.

CLEAN THE FRONT PANEL THOROUGHLY IN A BOWL OF FRESH WATER after exposure to saltwater, and dry it before operating. Otherwise, the front panel's keys, switches, and controllers may become unusable, due to salt crystallization, and/or the charging terminals of the battery pack may corrode.

NOTE: If the front panel's waterproof protection appears defective, carefully clean it with a soft, damp (fresh water) cloth, then dry it before operating.
The front panel may lose its waterproof protection if the case, jack cap, or connector cover is cracked or broken, or the front panel has been dropped.
Contact your Icom distributor or your dealer for advice.

IN CASE OF EMERGENCY

If your vessel requires assistance, contact other vessels and the Coast Guard by sending a Distress call on Channel 16.

USING CHANNEL 16
DISTRESS CALL PROCEDURE

1. "MAYDAY MAYDAY MAYDAY."
2. "THIS IS ....." (name of vessel).
3. Say your call sign or other description of the vessel (AND 9 digit DSC ID if you have one).
4. "LOCATED AT ....." (your position).
5. State the nature of the distress and assistance required.
6. Give any other information which might facilitate the rescue.

Or, transmit your Distress call using Digital Selective Calling on Channel 70.

USING DIGITAL SELECTIVE CALLING (Ch 70)
DISTRESS CALL PROCEDURE

1. While lifting up the key cover, hold down [DISTRESS] for 3 seconds until you hear 3 short beeps and then one long beep.
2. Wait for an acknowledgment on Channel 70 from a coast station.
   - After the acknowledgement is received, Channel 16 is automatically selected.
3. Hold down [PTT], then transmit the appropriate information as listed above.

INSTALLATION NOTE

Installation:
The installation of this equipment should be made in such a manner as to respect the EC recommended electromagnetic field exposure limits. (1999/519/EC)

The maximum RF power available from this device is 25 watts. The antenna should be installed as high as possible for maximum efficiency and the installation height should be at least 1.76 meters above any accessible position. In the case where an antenna cannot be installed at a reasonable height, then the transmitter should neither be continuously operated for long periods if any person is within a distance of 1.76 meters of the antenna, nor operated at all if any person is touching the antenna.

It is recommended that antenna of a maximum gain of 3 dB is used. If higher gain antenna are required then please contact your Icom distributor for revised installation recommendations.

Operation:
The exposure to RF electromagnetic field is only applicable when this device is transmitting. This exposure is naturally reduced due to the nature of alternating periods of receiving and transmitting. Keep your transmissions to the minimum necessary.

RADIO OPERATOR WARNING

Icom requires the radio operator to meet the FCC Requirements for Radio Frequency Exposure. An omnidirectional antenna with gain not greater than 9 dBi must be mounted a minimum of 5 meters (measured from the lowest point of the antenna) vertically above the main deck and all possible personnel. This is the minimum safe separation distance estimated to meet all RF exposure compliance requirements. This 5 meter distance is based on the FCC Safe Maximum Permissible Exposure (MPE) distance of 3 meters added to the height of an adult (2 meters) and is appropriate for all vessels.

For watercraft without suitable structures, the antenna must be mounted so as to maintain a minimum of 1 meter vertically between the antenna, (measured from the lowest point of the antenna), to the heads of all persons AND all persons must stay outside of the 3 meter MPE radius.

Do not transmit with radio and antenna when persons are within the MPE radius of the antenna, unless such persons (such as driver or radio operator) are shielded from antenna field by a grounded metallic barrier. The MPE Radius is the minimum distance from the antenna axis that person should maintain in order to avoid RF exposure higher than the allowable MPE level set by FCC.

FAILURE TO OBSERVE THESE LIMITS MAY ALLOW THOSE WITHIN THE MPE RADIUS TO EXPERIENCE RF RADIATION ABSORPTION WHICH EXCEEDS THE FCC MAXIMUM PERMISSIBLE EXPOSURE (MPE) LIMIT.
IT IS THE RESPONSIBILITY OF THE RADIO OPERATOR TO ENSURE THAT THE MAXIMUM PERMISSIBLE EXPOSURE LIMITS ARE OBSERVED AT ALL TIMES DURING RADIO TRANSMISSION. THE RADIO OPERATOR IS TO ENSURE THAT NO BYSTANDERS COME WITHIN THE RADIUS OF THE MAXIMUM PERMISSIBLE EXPOSURE LIMITS.

Determining MPE Radius
THE MAXIMUM PERMISSIBLE EXPOSURE (MPE) RADIUS HAS BEEN ESTIMATED TO BE A RADIUS OF ABOUT 3M PER OET BULLETIN 65 OF THE FCC.
THIS ESTIMATE IS MADE ASSUMING THE MAXIMUM POWER OF THE RADIO AND ANTENNAS WITH A MAXIMUM GAIN OF 9dBi ARE USED FOR A SHIP MOUNTED SYSTEM.

AVERTISSEMENT POUR LES OPÉRATEURS RADIO

AVERTISSEMENT

Icom exige que l'opérateur radio se conforme aux exigences de la FCC en matière d'exposition aux radiofréquences. Une antenne omnidirectionnelle dont le gain ne dépasse pas 9dBi doit être fixée à une distance minimale de 5 mètres (mesurée depuis le point le plus bas de l'antenne) verticalement au-dessus du pont principal et de tout le personnel qui peut s'y trouver. Il s'agit de la distance de sécurité minimale prévue pour satisfaire aux exigences de conformité en matière d'exposition aux RF. Cette distance de 5 mètres est établie en fonction de l'exposition maximale admissible sécuritaire de 3 mètres établie par la FCC, à laquelle on ajoute la hauteur d'un adulte (2 mètres); cette distance convient pour tous les navires.

Dans le cas des embarcations sans structure convenable, l'antenne doit être fixée de façon à maintenir une distance minimale de 1 mètre verticalement entre cette antenne (mesurée depuis son point le plus bas) et la tête de toute personne présente; toutes les personnes présentes doivent se tenir à l'extérieur d'un rayon d'exposition maximale admissible de 3 mètres.

Ne pas émettre à l'aide de la radio et de l'antenne lorsque des personnes se trouvent à l'intérieur du rayon d'exposition maximale admissible de cette antenne, à moins que ces personnes (comme le conducteur ou l'opérateur radio) ne soient protégées du champ de l'antenne par un écran métallique relié à la masse. Le rayon d'exposition maximale admissible équivaut à la distance minimale que cette personne doit maintenir entre elle et l'axe de l'antenne pour éviter une exposition aux RF supérieure au niveau d'exposition maximale admissible fixé par la FCC.

LE NON-RESPECT DE CES LIMITES PEUT CAUSER, POUR LES PERSONNES SITUÉES DANS LE RAYON D'EXPOSITION MAXIMALE ADMISSIBLE, UNE ABSORPTION DE RAYONNEMENT DE RF SUPÉRIEURE À L'EXPOSITION MAXIMALE ADMISSIBLE FIXÉE PAR LA FCC. L'OPÉRATEUR RADIO EST RESPONSABLE D'ASSURER QUE LES LIMITES D'EXPOSITION MAXIMALE ADMISSIBLE SOIENT RESPECTÉES EN TOUT TEMPS PENDANT LA TRANSMISSION RADIO. L'OPÉRATEUR RADIO DOIT S'ASSURER QU'AUCUNE PERSONNE PRÉSENTE NE SE SITUE À L'INTÉRIEUR DU RAYON D'EXPOSITION MAXIMALE ADMISSIBLE.

Établir le rayon d'exposition maximale admissible
ON ESTIME QUE LE RAYON D'EXPOSITION MAXIMALE ADMISSIBLE EST D'ENVIRON 3 M, TEL QUE STIPULÉ DANS LE BULLETIN OET 65 DE LA FCC. CETTE DISTANCE ESTIMÉE TIENT COMPTE D'UN SYSTÈME INSTALLÉ SUR UN NAVIRE UTILISANT LA PUISSANCE MAXIMALE DE LA RADIO ET DES ANTENNES DONT LE GAIN MAXIMAL EST DE 9dBi.

FCC INFORMATION

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.
Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

CAUTION: Changes or modifications to this device, not expressly approved by Icom Inc., could void your authority to operate this device under FCC regulations.

NOTE

A WARNING STICKER is supplied with the USA version transceiver.
To comply with FCC regulations, this sticker must be affixed in such a location as to be readily seen from the operating controls of the radio as in the diagram below. Make sure the chosen location is clean and dry before applying the sticker.

EXAMPLE

PRECAUTIONS

⚠**WARNING! NEVER** connect the transceiver to an AC outlet. This may pose a fire hazard or result in an electric shock.

⚠**WARNING! NEVER** connect the transceiver to a power source of more than 16 V DC such as a 24 V battery. This could damage the transceiver.

⚠**WARNING! NEVER** reverse the DC power cable polarity when connecting to a power source. This could damage the transceiver.

⚠**WARNING! NEVER** cut the DC power cable between the DC plug at the back of the transceiver and the fuse holder. If an incorrect connection is made after cutting, the transceiver may be damaged.

⚠**WARNING! NEVER** operate the transceiver during a lightning storm. It may result in an electric shock, cause a fire or damage the transceiver. Always disconnect the power source and antenna before a storm.

⚠**WARNING! NEVER** place the transceiver where normal operation of the vessel may be hindered, or where it could cause bodily injury.

CAUTION: KEEP the transceiver and microphone at least 1 meter away from the vessel's magnetic navigation compass.

CAUTION: DO NOT place or leave the transceiver in areas with temperatures below –20°C ~ +60°C (–4ºF ~ +140ºF), or in areas subject to direct sunlight, such as a dashboard.

CAUTION: DO NOT use harsh solvents such as Benzine or alcohol to clean the transceiver, as they will damage the transceiver's surfaces. If the transceiver becomes dusty or dirty, wipe it clean with a soft, dry cloth.

BE CAREFUL! The transceiver rear panel will become hot when transmitting continuously for long periods of time.

Place the transceiver in a secure place to avoid inadvertent use by unauthorized persons.

BE CAREFUL! The transceiver's front panel meets IPX8 requirements and the optional HM-195/HM-229 COMMANDMIC meet IPX7 requirements for waterproof protection*. However, once the transceiver or microphone has been dropped, or the waterproof seal is cracked or damaged, waterproof protection cannot be guaranteed because of possible damage to the case or the waterproof seal.

* Except for the DC power connector, NMEA In/Out leads and AF Out leads.

PRÉCAUTIONS

⚠**AVERTISSEMENT ! NE JAMAIS** relier l'émetteur-récepteur à une prise CA. Cela pourrait provoquer un choc électrique ou un incendie.

⚠**AVERTISSEMENT ! NE JAMAIS** brancher l'émetteur-récepteur sur une source d'alimentation supérieure à 16 V CC, comme une batterie de 24 V. Cela pourrait endommager l'émetteur-récepteur.

⚠**AVERTISSEMENT ! NE JAMAIS** inverser la polarité du câble d'alimentation CC lors de la connexion à une source d'alimentation. Cela pourrait endommager l'émetteur-récepteur.

⚠**AVERTISSEMENT ! NE JAMAIS** couper le câble d'alimentation CC entre la prise CC a l'arrière de l'émetteur-récepteur et le porte-fusible. L'émetteur-récepteur peut être endommagé par la suite en cas de connexion inappropriée.

⚠**AVERTISSEMENT ! NE JAMAIS** utiliser l'émetteur-récepteur durant un orage. Cela risquerait de provoquer un choc électrique, un incendie ou d'endommager l'émetteur-récepteur. Toujours débrancher la source d'alimentation et l'antenne avant une tempête.

MISE EN GARDE : NE JAMAIS installer l'émetteur-récepteur à un emplacement où il pourrait gêner le fonctionnement normal du navire ou provoquer des blessures corporelles.

INSTALLER la VHF et le microphone à au moins 1 m du compas de route du navire.

NE PAS utiliser ou placer l'émetteur-récepteur dans des zones où la temperature est inférieure à –15° ou supérieure à +55° ou dans des zones soumises au rayonnement solaire direct, telles le tableau de bord.

NE PAS nettoyer l'appareil avec des solvants agressifs tels que benzène ou alcool, susceptibles d'endommager les surfaces exposées du boitier. En cas de dépôt de poussière ou de salissures sur l'émetteur-récepteur, il faut l'essuyer avec chiffon doux et sec.

MISE EN GARDE ! La face arrière de la VHF chauffe en cas d'utilisation continue sur une longue durée.

Placer l'émetteur-récepteur hors de portée des enfants pour éviter toute utilisation inopinée.

MISE EN GARDE ! La face avant de l'émetteur-récepteur est étanche conformément à la norme IPX7*. L'étanchéité ne peut plus être garantie après une chute de l'appareil en raison des risques de fissures du boîtier, de dégradation du joint d'étanchéité, etc.

*Les connecteurs sur le panneau arrière ne sont pas étanche IPX7.

Si la face avant est exposée à de l'eau de mer, **ASSUREZ-VOUS DE LE NETTOYER ENTIEREMENT AVEC DE L'EAU DOUCE** lorsque la protection étanche sur le panneau avant fonctionne. Dans le cas contraire, les touches et le commutateur risquent de ne plus fonctionner en raison de la cristallisation du sel.

Icom ne peut pas être tenu pour responsable de la destruction, de la détérioration ou des performances d'un équipement Icom ou non-Icom, si le dysfonctionnement survient à cause de :
- Force majeure, sans toutefois s'y limiter, les incendies, tremblements de terre, tempêtes, inondations, la foudre, d'autres catastrophes naturelles, perturbations, émeutes, guerre, ou contamination radioactive.
- L'utilisation d'un émetteur-récepteur Icom avec tout équipement non fabriqué ou approuvé par Icom.

ACTION ICON DESCRIPTION

The following describes the [CH/ENT], [ENT] and the keypad operations in this instruction manual.

Rotate


: Rotate [CH/ENT] to select.

Push


: Push [ENT] to enter or set.

Push


: Push the keypad to enter a digit or text.

Also, you can use the following key functions in the Menu screen.

FUNCTION	ACTION
Select	Rotate [CH/ENT]. Push [▲] or [▼].
Enter	Push [ENT], [CH/ENT], or [Enter] [—].
Go to the next tree level	Push [ENT] or [▶].
Go back to the previous tree level	Push [CLR], [◀], or [Back] [—].
Cancel	Push [CLR].
Exit	Push [MENU] or [Exit] [—].

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◇ Priorities

- Read all rules and regulations pertaining to call priorities, and keep an up-to-date copy handy. Safety and distress calls take priority over all others.
- You must monitor Channel 16 when you are not operating on another channel.
- False or fraudulent distress calls are prohibited under law.

◇ Privacy

- Information overheard, but not intended for you, cannot lawfully be used in any way.
- Indecent or profane language is prohibited.

◇ Radio licenses

(1) SHIP STATION LICENSE

You may require a current radio station license before using the transceiver. It is unlawful to operate a ship station which is not licensed, but required to be.

If required, contact your dealer or the appropriate government agency for a Ship-Radiotelephone license application. This government-issued license states the call sign which is your craft's identification for radio purposes.

(2) OPERATOR'S LICENSE

A Restricted Radiotelephone Operator Permit is the license most often held by small vessel radio operators when a radio is not required for safety purposes.

If required, the Restricted Radiotelephone Operator Permit must be posted or kept with the operator. If required, only a licensed radio operator may operate a transceiver.

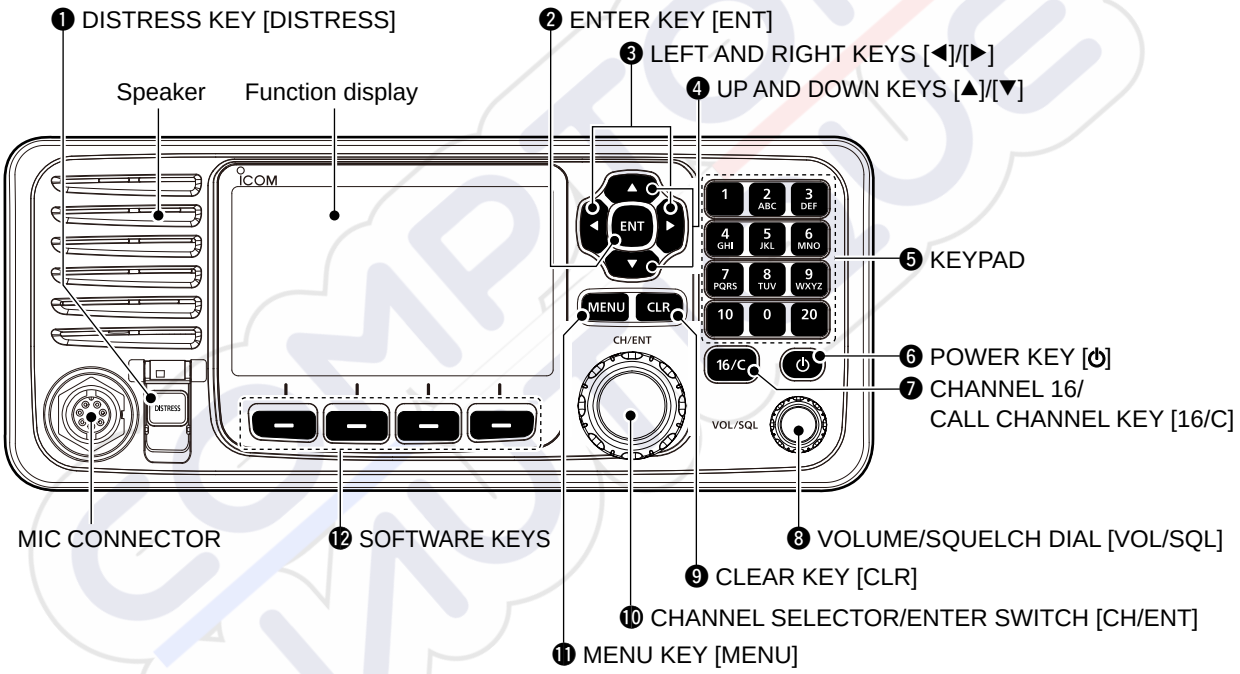
However, non-licensed individuals may talk over a transceiver if a licensed operator starts, supervises, ends the call and makes the necessary log entries.

A current copy of the applicable government rules and regulations is only required to be on hand for vessels in which a radio telephone is compulsory. However, even if you are not required to have these on hand it is your responsibility to be thoroughly acquainted with all pertinent rules and regulations.

NOTE: Even though the transceiver is capable of operation on VHF marine channels 1021, 1023, 1081, 1082 and 1083, according to FCC regulations these simplex channels cannot be lawfully used by the general population in USA waters.

2 PANEL DESCRIPTION

■ Front panel



❶ **DISTRESS KEY [DISTRESS]** (p. 31)
Hold down for 3 seconds to transmit a Distress call.

❷ **ENTER KEY [ENT]**
Push to set the entered data, selected item, and so on.

❸ **LEFT AND RIGHT KEYS [◄]/[►]**
- Push to scroll the Software Key functions. (p. 5)
- In the character or number entry mode, push to select a character or number in the keypad. (p. 20)

❹ **UP AND DOWN/CHANNEL SELECT KEYS [▲]/[▼]**
- Push to select an operating channel, (p. 14), Menu items, Menu settings, (p. 13) and so on.
- While scanning, push to check the Favorite channels, change the scanning direction or manually resume a scan. (p. 23)

❺ **KEYPAD**
Push to enter numbers, letters or symbols.
For channel number entry, see page 14.
For channel name entry, see page 20

❻ **POWER KEY [⏻]**
Hold down for 1 second to turn the transceiver ON or OFF.

❼ **CHANNEL 16/CALL CHANNEL KEY [16/C]**
- Push to select Channel 16. (p. 14)
- Hold down for 1 second to select the Call channel. (p. 14)
  • "CALL" is displayed when the Call channel is selected.

❽ **VOLUME/SQUELCH DIAL [VOL/SQL]** (p. 18)
- Rotate to adjust the volume level.
- Push once or twice to display the Volume or Squelch Setting screen, and then rotate to adjust the volume or squelch level.

❾ **CLEAR KEY [CLR]**
Push to cancel the entered data, or to return to the previous screen.

❿ **CHANNEL SELECTOR/ENTER SWITCH [CH/ENT]**
- Rotate to select an operating channel (p. 14), Menu items or Menu settings (p. 13).
- Push to set the entered data, or selected item.

⓫ **MENU KEY [MENU]**
Push to enter or exit the Menu screen. (p. 13)

■ Front panel (Continued)

⓬ **SOFTWARE KEYS** (p. 5)

You can use various key functions that are assigned to the Software Keys, as described below.

Compose Distress (p. 31)

Push to display the COMPOSE DISTRESS screen.

Compose Other (p. 37)

Push to display the COMPOSE NON-DISTRESS screen.

Unread List

When the transceiver has unread DSC calls, push to enter the Unread List.

ⓘ Displayed only when “Single” is selected in the DSC procedure menu. (p. 64)

Task List (p. 30)
(For only the USA version.)

When the transceiver has any task, push to enter the Task List.

ⓘ Displayed only when “Multiple” is selected in the DSC procedure menu. (p. 64)

Scan (p. 22)
(Except for the Dutch version.)

Push to start or stop a Normal or Priority scan.

Dualwatch/Tri-watch [DW/TW] (p. 24)
(Except for the Dutch version.)

Push to start or stop the Dualwatch or Tri-watch.

AIS (p. 74)

Push to display the AIS plotter on the left side of the display.

ⓘ An AIS receiver may not be installed, depending on the transceiver version.

Channel/ Weather [CH/WX] (p. 16)
(For only the USA version.)

Push to select either the regular channels or the Weather channels.

Channel [CHAN] (p. 14)
(For only the versions except the USA version.)

Push to enter the regular channel selection mode.

High/Low [HI/LO] (p. 18)

Push to set the output power level to high or low.

ⓘ Some channels are set to only low power.

Voice Scrambler (p. 71)

Push to set the Voice Scrambler function.

ⓘ This function is displayed only when the voice scrambler unit is installed.

RX Play (p. 72)

Push to play recorded audio.

RX Hailer (p. 68)

Push to turn the RX Hailer mode ON or OFF.

LO/DX

(For only the USA version.)

Push to turn the Attenuator function ON or OFF.

ⓘ The “LOCAL” icon is displayed when the Attenuator function is ON.

Favorite channel [Favorite]

Push to set or clear the displayed channel as a Favorite channel. (p. 14)

Channel Name (p. 20)

Push to display the CHANNEL NAME screen.

Backlight (p. 5)

Push to open the Backlight Settings window.

DSC Log (p. 58)

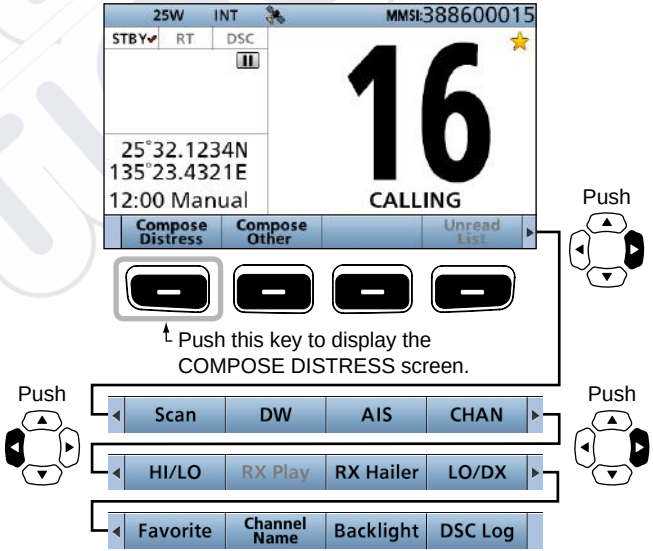
Push to display the RECEIVED CALL LOG screen.

■ Software Key function

The transceiver has Software Keys for various functions.
The key function is displayed above the Software Key.

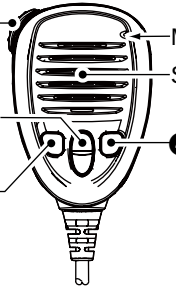
◇ Selecting the Software Key function

When “◀” or “▶” is displayed beside the key icon, pushing [◀] or [▶] scrolls the Software Key functions.
When you push [◀] or [▶] once, 4 functions scroll together.



* The key functions may differ, depending on the transceiver version.

■ Speaker Microphone



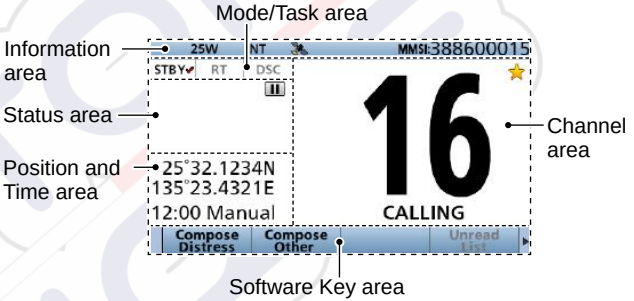
❶ PTT SWITCH [PTT] (p. 18)
Hold down to transmit, release to receive.

❷ UP/DOWN KEYS [▲]/[▼] (p. 18)
Push to select the Favorite channels, change scanning direction or manually resume a scan.
ⓘ When the "FAV on MIC" item is set to "OFF," you can select all channels. (p. 18)

❸ TRANSMIT POWER KEY [H/L]
- Push to set the power level to high or low.
  ⓘ Some channels are set to only low power.
- While holding down this key, turn ON the transceiver to turn the Microphone Lock function ON or OFF. (p. 17)

❹ CHANNEL 16/CALL CHANNEL KEY [16/C] (p. 14)
- Push to select Channel 16.
- Hold down for 1 second to select the Call channel.
  • The "CALL" icon is displayed.

■ Function display (Main screen)



◇ Mode/Task area

The current mode is displayed in the Mode and Task area.

Indicator	Description
STBY	Displayed while in the Standby mode.
RT	Displayed while in the Radio Telephone (RT) mode. ⓘ " RT" is displayed when the RT mode task is activated. ⓘ Returns to the Standby mode if no operation occurs during the preset period of time. (p. 6)
DSC DSC (1)	Displayed after making or receiving a DSC call. ⓘ If the transceiver is in the Multiple Task mode, the number of DSC tasks is displayed by the indicator.

◇ Channel area

The selected operating channel number, channel name, and the following indicators are displayed in the Channel area.

Indicator	Description
	Displayed when a Favorite channel is selected.
CALL	Displayed when the Call channel is selected by holding down [16/C] for 1 second.
DUP	Displayed when a Duplex channel is selected.
	Displayed when the battery voltage is low.

◇ Position and Time area

POSITION AREA

The current position is displayed when valid GPS data is received, or you manually enter your position.

Indicator	Description
NO POSITION	Displayed when a GPS antenna is not connected or your position has not been manually entered.
??	Blinks every 2 seconds instead of your position when the GPS position is invalid. ⓘ The last position is held for only 23.5 hours. After that, “NO POSITION” will be displayed.
	Blinks every 2 seconds instead of the position after 4 hours have passed since you manually entered your position. ⓘ The manually entered position is held for only 23.5 hours. After that, “NO POSITION” will be displayed.

TIME AREA

The current time is displayed when valid GPS data is received, or manually enter the time.
The date information is displayed when the RMC GPS sentence formats are included in the GPS signal.

Indicator	Description
NO TIME	Displayed when a GPS antenna is not connected or the time has not been manually entered.
Local	Displayed when the offset time is set.
Manual	Displayed when the time was manually entered.
UTC	Displayed when the GGA, GLL or GNS sentences are received from NMEA 0183.
??	Blinks every 2 seconds instead of the time when the GPS current time is invalid. ⓘ After 23.5 hours has passed, “NO TIME” will be displayed.
	Blinks every 2 seconds instead of the time after 4 hours have passed since you manually entered the time. ⓘ The manually entered time is held for only 23.5 hours. After that, “NO TIME” will be displayed.

■ Function display (Main screen) (Continued)

◇ Status area

The current status is displayed in the Status area.

Indicator	Description
SCAN 16	Displayed during a Priority scan. (p. 23)*
SCAN	Displayed during a Normal scan. (p. 23)*
DUAL 16	Displayed during Dualwatch. (p. 24)*
TRI 16	Displayed during Tri-watch. (p. 24)*
LOCAL	Displayed when the Attenuator function is turned ON. *For only the USA version.
RX	Displayed when in the RX Hailer mode. (p. 68)
	• Displayed when recorded audio is played or stopped. (p. 72) • Displayed when received audio is recorded. (p. 72)

*Not usable in Dutch version.

◇ Information area

The MMSI code* and the following indicators are displayed in the Information area.

*ATIS code is displayed if only the ATIS code is entered in Dutch and German version.

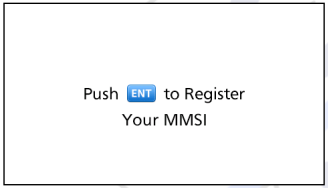
Indicator	Description
BUSY	Displayed when receiving a signal or when the squelch is open.
TX	Displayed while transmitting.
25W	Displayed when high power is selected.
1W	Displayed when low power is selected.
USA, INT, CAN, WX, ATIS, DSC	• Displays the selected channel group. (p. 15) • “WX” is displayed when the weather channel is selected.
	Displayed when the transceiver receives valid position and time data. Blinks when invalid GPS data is being received.
	• Displayed when there are unread DSC messages. • Blinks when a DSC message is received.
	Displayed when the “CH Auto Switch” in DSC Settings is set to an option except “Accept.”
	Displayed when the Auto Foghorn function is activated. (p. 69)

■ Entering the MMSI code

First, you must enter the 9 digit MMSI (Maritime Mobile Service Identity: DSC self ID) code at power ON.

NOTE: You can enter this initial code ONLY ONCE. After entry, only your dealer or distributor can change it.
If your MMSI code has already been entered, this entry is not necessary.

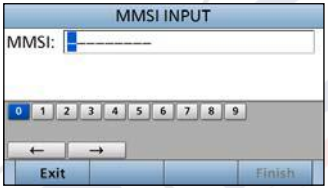
1. Hold down [⏻] for 1 second to turn ON the transceiver.
   - Three short beeps sound.
   - "Push [ENT] to Register Your MMSI" is displayed.
2. Push [ENT] to enter the MMSI code entry mode.



Push ENT

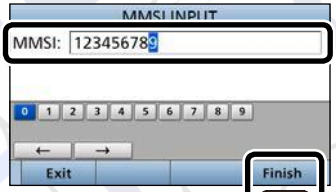
   - Push [CLR] to cancel the entry. In that case, the transceiver displays "Push [ENT] to Register Your MMSI" again.

3. Enter your 9 digit MMSI code.



Push 1 2 3 / 4 5 6 / 7 8 9 / 10 0 20 + Rotate CH/ENT

4. After entering the 9th digit, push [Finish] [—] to set the ID.



Push [—]

5. Reenter your MMSI code to confirm.

Push 1 2 3 / 4 5 6 / 7 8 9 / 10 0 20 + Rotate CH/ENT

6. After entering the 9th digit, push [Finish] [—] to register the ID.

Push [—]

   - When you successfully enter your MMSI code, the following screen is displayed.

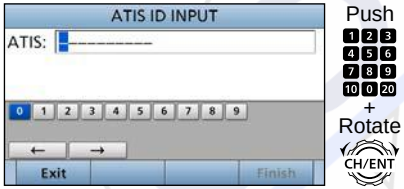
   - After that, the Main screen is displayed. The registered MMSI code is displayed at the top of the screen.

■ Entering the ATIS code (For Dutch and German versions)

The Automatic Transmitter Identification System (ATIS) ID consists of 10 digits. You can enter the ID in the “ATIS ID Input” item on the Menu screen.

You can enter this ID ONLY ONCE. After entry, only your dealer or distributor can change it.
If your ATIS ID has already been entered, this entry is not necessary.

1. Push [MENU].
2. Select “ATIS ID Input,” then push [ENT].
3. Enter a 10 digit ATIS code.

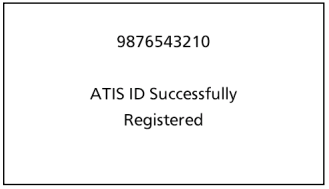


4. After entering the 10th digit, push [Finish] [—] to set the ID.

5. Reenter your ATIS code to confirm.

6. After entering the 10th digit, push [Finish] [—] to register the ID.

- When you successfully enter your ATIS code, the following screen is displayed.

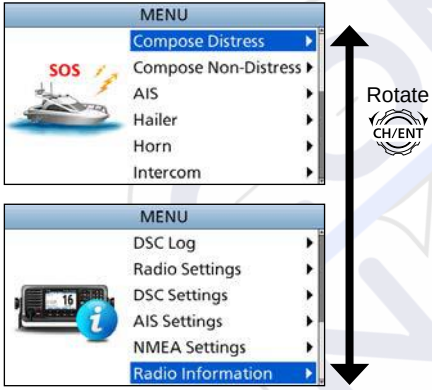


You can use the Menu screen to set infrequently changed values or function settings.

■ Construction

The Menu screen is constructed in a tree structure.
You can go to the next tree level with [ENT], or go back a level with [CLR].
ⓘ See page viii for details.

To select an item, rotate [CH/ENT].



• Compose Distress (p. 31)

Nature of Distress	Select a Nature of Distress option.
Position	
• Latitude	Displays latitude data.
• Longitude	Displays longitude data.
• UTC	Displays UTC offset data.

• Compose Non-Distress (p. 37)

Message Type	Select a Message Type option.
Address*1	Enter a destination address.
Position*1	
• Latitude*1	Displays latitude data.
• Longitude*1	Displays longitude data.
• UTC*1	Displays UTC offset data.
Category	Select a Category option.
Mode*1	Displays a Mode.
Channel*1	Select an Intership channel.

• AIS (p. 74)

Displays the AIS plotter.

• Hailer (p. 68)

Displays the Hailer function screen.

• Horn (p. 69)

Manual Horn	Hold down [Horn] ▬ to sound a horn.
Auto Foghorn	Select the automatic foghorn pattern.
Frequency	Select the foghorn's audio frequency.

• Intercom*2 (p. 67)

RADIO	Displays the transceiver's name.
SUB UNIT 1, 2, 3	Displays name of the unit that are connected for the Intercom function.

• GPS Information (p. 85)

Displays the GPS information.

• AquaQuake (p. 21)

Displays the AquaQuake function screen.

• Configuration

Key Beep	Turn the Key Beep function ON or OFF.
Key Assignment	Select the items to the assignable keys.
UTC Offset	Set the UTC Offset.
Inactivity Timer	
• Not DSC Related	Set the inactivity timer for not DSC related calls.
• DSC Related	Set the inactivity timer for DSC related calls.
• Distress Related	Set the inactivity timer for Distress related calls.
• RT Related	Set the inactivity timer for the Radio Telephone mode.
Speaker	
• Internal	The audio is heard from the internal speaker.
• Int. and ext.	The audio is heard from both the internal speaker and the external speaker.

*1 May not be displayed, depending on the message type.
*2 Displayed when the optional command microphone or command head is connected to the transceiver.

■ Construction (Continued)

Noise Cancel	
• RX	Set the reduction level of the Noise Cancel function.
• TX	Turn the Noise Cancel function for the transmit signal ON or OFF.
Power SW from Sub Unit	
• All Units	When you turn OFF the command head, the transceiver is turned OFF at the same time.
• Own Unit	The transceiver is not turned OFF even if you turned OFF the command microphone.

• DSC Log (p. 58)

Received Call Log	Displays the received call log.
Transmitted Call Log	Displays the transmitted call log.

• Radio Settings (p. 88)

Scan Type*4	Select a Scan Type from Normal Scan or Priority Scan.
Scan Timer*4	Turn the Scan Timer function ON or OFF.
Dual/Tri-Watch*4	Select the Dualwatch or Tri-watch function.
Channel Group	Select a channel group.
Call Channel	Set the Call channel.
WX Alert*1	Turn the Weather Alert function ON or OFF.
Voice Scrambler*3	Set the Voice Scrambler code.
Voice Record	Select whether or not to automatically record the voice audio.
FAV Settings	Set the Favorite channel settings.
FAV on MIC	Turn the FAV on MIC function ON or OFF.

• DSC Settings (p. 60)

Position Input*2	Enter your position.
Individual ID	Enter an Individual ID.
Group ID	Enter a Group ID.
Auto ACK	Select whether or not to automatically transmit an Acknowledgement after receiving each type of call.
CH Auto Switch	Select whether or to automatically select the channel that the DSC call is received on, when received.
DSC Data Output	Select a DSC Data Output option.
Alarm Status	
• Safety	Turn the Alarm Status for Safety ON or OFF.
• Routine	Turn the Alarm Status for Routine ON or OFF.
• Warning	Turn the Alarm Status for Warning ON or OFF.
• Self-Terminate	Turn the Alarm Status for Self-Terminate ON or OFF.
• Discrete	Turn the Alarm Status for Discrete ON or OFF.
CH 70 SQL Level	Select the Channel 70 squelch level.
Self Check Test	Starts the self check Test.
Procedure*1	Select the Single task mode or Multiple task mode.

• AIS Settings (p. 80)

North Up/COG Up	Select the display type for AIS plotter.
CPA/TCPA	Edit the alarm settings for AIS receiver.
ID Blocking	Enter the vessel's or your transponder ID to block.

• NMEA Settings (p. 91)

NMEA0183	
• Port 1, Port 2	Select the data transfer speed to receive and transmit data from external devices.
NMEA2000	
• GPS, AIS	Select the sensors in NMEA 2000 network which sends GPS or AIS data to the transceiver.

• Radio Information (p. 93)

Displays your transceiver' s Serial number, software version, GPS module version, and so on.

*1 May not be displayed, depending on the version.
*2 Not displayed, when valid GPS data is received.
*3 Displayed only when the voice scrambler unit is installed.
*4 Not usable in Dutch version.

■ Selecting a Menu item

Follow the procedures described below to select a Menu item.

Example: Set the Tri-watch function.

1. Push [MENU] to display the MENU screen.
2. Rotate [CH/ENT] to select "Radio Settings," then push [ENT].

Rotate CH/ENT + Push ENT

3. Rotate [CH/ENT] to select "Dual/Tri-Watch," then push [ENT].

Rotate CH/ENT + Push ENT

4. Rotate [CH/ENT] to select "Tri-Watch," and then push [ENT].

Rotate CH/ENT + Push ENT

- Sets the Tri-watch function, and then goes back to the RADIO SETTINGS screen, after pushing [ENT].

5. Push [MENU] to return to the Main screen.

■ Selecting a channel

◇ Selecting a regular channel

- Rotate [CH/ENT].
- Push [▲] or [▼].
- Push the keypad to directly enter the channel number.

(Example: Selecting Channel 22)
Push [2 ABC] → [2 ABC].

Push
1 2 3
4 5 6
7 8 9
10 0 20
twice

◇ Selecting Channel 16

Channel 16 is the distress and safety channel. It is used for establishing initial contact with a station, and for emergency communications.
While standing by, you must monitor Channel 16.

- Push [16/C].

◇ Selecting Call channel

You have a leisure use Call channel for quick recall.
To set your most used channel, see page 17.
The default Call channel differs, depending on the transceiver version.

- Hold down [16/C] for 1 second.

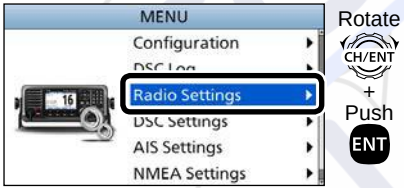
Displayed

◇ Selecting a channel group

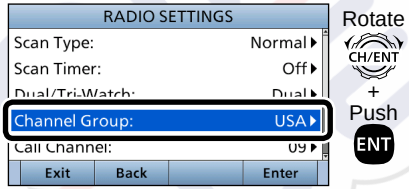
Channel Groups are preset into your transceiver. You can select the Channel Group between USA, International, Canadian, DSC, and ATIS, depending on the transceiver version.

Version	Preset Channel Group				
	USA	INT	CAN	DSC	ATIS
USA	✓	✓	✓		
UK	✓	✓			
European		✓			
Dutch		✓			✓
German		✓		✓	✓
Chinese	✓	✓	✓		

1. Push [MENU].
   • The “MENU” screen is displayed.
2. Rotate [CH/ENT] to select “Radio Settings,” then push [ENT].



3. Rotate [CH/ENT] to select “Channel Group,” then push [ENT].



4. Rotate [CH/ENT] to select the Channel Group, then push [ENT].

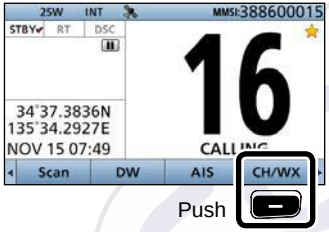
5. Push [MENU] to return to the Main screen.
   • The selected Channel Group’s icon is displayed on the Main screen.

◇ Weather channels and Weather Alert function

For the USA version, the transceiver has 10 preset Weather channels. You can use these channels to monitor broadcasts from the National Oceanographic and Atmospheric Administration (NOAA). The transceiver automatically detects a Weather alert tone on the selected weather channel, or while scanning.

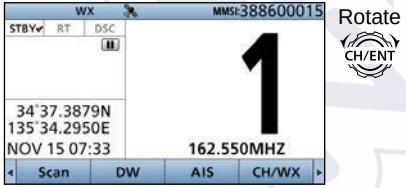
Selecting a Weather channel

1. Push [◀] or [▶] until “CH/WX” is displayed in the Software Key area.
2. Push [CH/WX] [—].



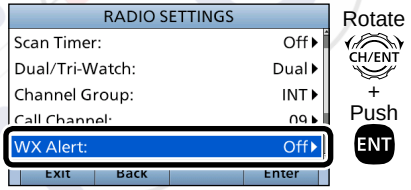
- “WX” is displayed instead of the Channel Group icon.

3. Rotate [CH/ENT] to select a Weather channel.



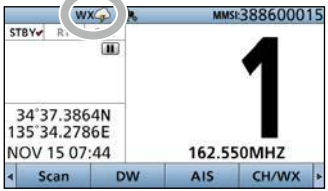
Setting the Weather Alert function

1. Push [MENU].
   - The “MENU” screen is displayed.
2. Rotate [CH/ENT] to select “Radio Settings,” then push [ENT].
3. Rotate [CH/ENT] to select “WX Alert,” then push [ENT].



- The “WX ALERT” screen is displayed.

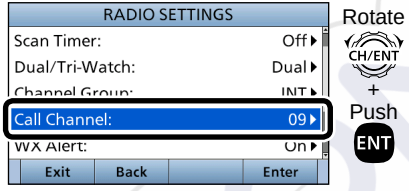
4. Rotate [CH/ENT] to select “On with Scan” or “On,” then push [ENT].
5. Push [MENU] to return to the Main screen.
   - “WX” is displayed next to “WX” on the Main screen.



■ Setting the Call channel

By default, a Call channel is set in each Channel Group. You can set the Call channel with your most often-used channel for quick recall.

1. Push [MENU].
   • The “MENU” screen is displayed.
2. Rotate [CH/ENT] to select “Radio Settings,” then push [ENT].
3. Rotate [CH/ENT] to select “Call Channel,” then push [ENT].



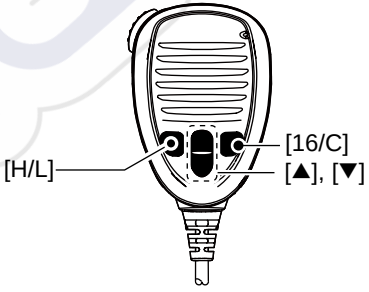
   • The “CALL CHANNEL” screen is displayed.
4. Rotate [CH/ENT] to select a channel to be set as the Call channel, then push [ENT].
5. Push [MENU] to return to the Main screen.

TIP: To confirm that your setting is correctly set, hold down [16/C] for 1 second. (p. 14)

■ Microphone Lock function

The Microphone Lock function electrically locks [▲], [▼], [16/C] and [H/L] on the supplied microphone.
This prevents accidental channel changes or function access.

While holding down [H/L] on the microphone, hold down [⏻] for 1 second to turn ON the transceiver.
• The Microphone Lock function is turned ON or OFF.



5

■ Receiving and transmitting

CAUTION: DO NOT transmit without an antenna. It will damage the transceiver.

1. Hold down [⏻] for 1 second to turn ON the transceiver.
   ⓘ If no MMSI code is entered, “Push [ENT] to Register Your MMSI” is displayed. (p. 9)
2. Rotate [VOL/SQL] to adjust the audio level.
3. Push [VOL/SQL] once or twice to open the “SQL Setting” window, then rotate [VOL/SQL] to adjust the squelch level until the noise just disappears.
4. Select a channel. (p. 14)

ⓘ **Information**
- When receiving a signal, “BUSY” is displayed.
- You can use Channel 70 only for Digital Selective Calling (DSC) transmissions.
- When the “FAV on MIC” item is set to “OFF,” you can select all channels using the [▲] or [▼] keys on the microphone. (p. 6)

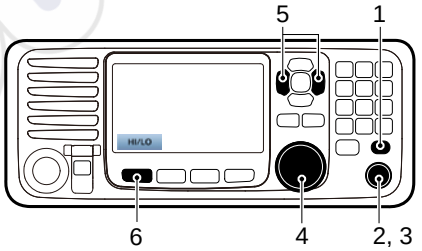
5. Push [◀] or [▶] until “HI/LO” is displayed in the Software Key area.
6. Push [HI/LO] [—] to select an output power high or low.

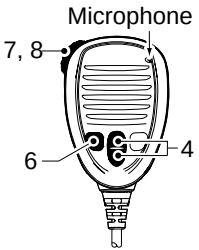
ⓘ **Information**
- “25W” is displayed when high power is selected. Choose high power for longer distance communications.
- “1W” is displayed when low power is selected. Choose low power for short range communications.
- Some channels are restricted to low power.

7. Hold down [PTT], and speak at your normal voice level.
   • “TX” is displayed.
8. Release [PTT] to return to receive.

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

NOTE for the Time-out Timer (TOT) function:
The TOT function inhibits continuous transmission beyond a preset time period after the transmission starts.
10 seconds before transmission is cut off, a beep sounds to indicate the transmission will be cut off, and “TOT” blinks in the channel name field. After it is cut OFF, "TIME OUT" is displayed for 10 seconds. And you cannot transmit until "TIME OUT" disappears.





■ Backlight function

The function display and keys can be backlit for better visibility under low light conditions. And, you can set the Backlight mode to Day mode or Night mode.
The Day mode is for the daytime operation, and the screen items are in color.
The Night mode is for the nighttime operation, and the screen items are in black and red.

1. Push [◀] or [▶] until “Backlight” is displayed in the Software Key area.
2. Push [Backlight] [—] to open the “Backlight Settings” window.

TIP: In the “Backlight Setting” window, if you push no key for about 5 seconds, the transceiver automatically returns to the Normal operation mode.

3. Push [▲] or [▼] to select “Day Mode” or “Night Mode.”

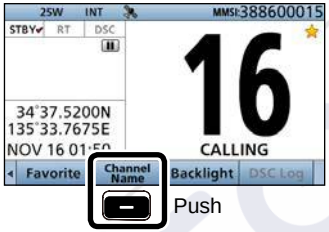
4. Rotate [CH/ENT] to adjust the backlight level, then push [ENT].

ⓘ The backlight level is adjustable in 7 levels and “OFF.”*
*“OFF” is selectable only for the Day mode.

■ Entering a Channel name

You can rename each channel with a unique alphanumeric ID of up to 10 characters. This may be helpful to indicate the frequency's use.

1. Cancel the Dualwatch, Tri-watch or Scan function, if activated.
2. Select a channel. (p. 17)
3. Push [◀] or [▶] until “Channel Name” is displayed in the Software Key area.
4. Push [Channel Name] [—].



5. Enter a channel name.

ⓘ **Information**

- You can enter the following characters by pushing the keypad one or more times.

KEY	ENTRY	KEY	ENTRY
[1]	1	[6]	6 M N O
[2]	2 A B C	[7]	7 P Q R S
[3]	3 D E F	[8]	8 T U V
[4]	4 G H I	[9]	9 W X Y Z
[5]	5 J K L	[0]	0 . (period)

- To move the cursor, rotate [CH/ENT].
- To enter a symbol, push [“!$?”] [—]. And then push [▲], [▼], [◀], or [▶] to select the character, then push [ENT].
- To correct an entry, move the cursor to the character, and then enter the correct character.

6. After entering, push [Finish] [—] to return to the Main screen.

■ Using the AquaQuake water draining function

Water in the speaker grill may muffle the sound coming from the speaker. The AquaQuake Water Draining function removes water from the speaker grill by vibrating the speaker.

1. Push [MENU].
   • The “MENU” screen is displayed.
2. Rotate [CH/ENT] to select “AquaQuake,” then push [ENT].
3. Hold down [Aqua Quake] [—] until all water is removed from the speaker grill.

   • A low frequency vibration beep sounds to drain the water, regardless of the volume level setting.
   ⓘ This function is activated for a maximum of 10 seconds, even if you continue to hold down the Software Key.
4. Push [MENU] to return to the Main screen.

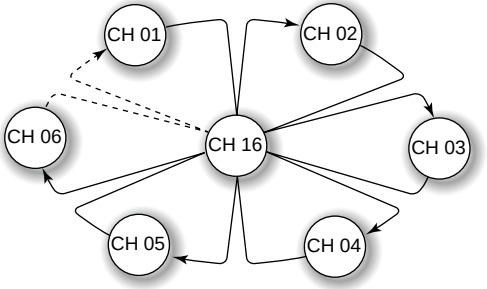
■ Scan types

Except for the Dutch version, you can find ongoing calls by scanning the Favorite channels without rotating [CH/ENT].

The IC-M605 and IC-M605EURO have two scan types.
- Priority scan
- Normal scan

Before you start a scan:
- Set the channels you want to scan as Favorite channels. (Scans only Favorite channels.) (p. 23)
- Set the scan type to “Normal" or “Priority.” (p. 88)

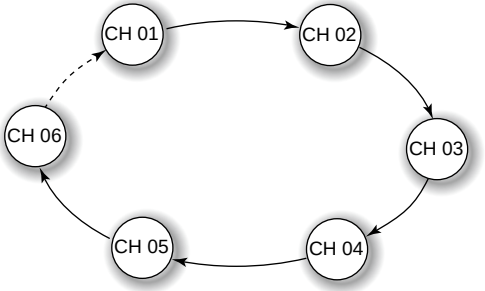
PRIORITY SCAN
A Priority scan sequentially scans all Favorite channels while monitoring Channel 16.



When a signal is received:
• On Channel 16
The scan pauses until the signal on Channel 16 disappears.

• On a channel other than Channel 16:
The scan switches to Dualwatch, until the signal disappears.

NORMAL SCAN
A Normal scan sequentially scans all Favorite channels. However, the scan does not check Channel 16 unless it is set as a Favorite channel.



■ Favorite channels

You can quickly recall often-used channels by setting them as Favorite channels.
All channels are set as Favorite channels by default.

◇ Setting

1. Rotate [CH/ENT] to select a channel.
2. Push [Favorite] [—] to set the channel as a Favorite channel.
   • "★" is displayed.

◇ Selecting

● Push [▲] or [▼] on the microphone.
  • Non-Favorite channels are skipped and not displayed.
  • When the "FAV on MIC" item is set to "OFF," you can select all channels. (p. 90)

TIP: You can select all channels by rotating [CH/ENT] or pushing [▲] or [▼] on the transceiver. (p. 14)

◇ Clearing

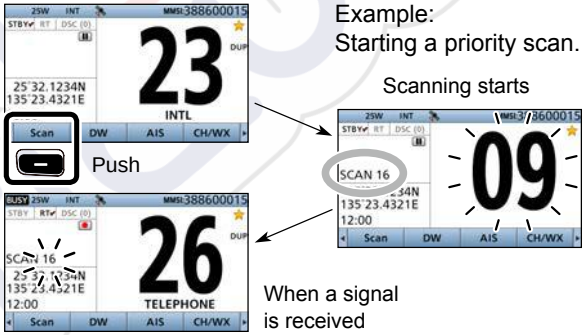
1. Select a Favorite channel to clear.
2. Push [Favorite] [—] to clear the channel as the Favorite channel.
   • "★" disappears.

TIP: You can clear all Favorite channels in the Menu screen. (p. 90)

■ Starting a scan

1. Push [Scan] [—] to start a scan.
   • During a Priority scan, "SCAN 16" is displayed.
   • During a Normal scan, "SCAN" is displayed.
2. Push [Scan] [—] again to cancel the scan.
   • "SCAN 16" or "SCAN" disappears.

Example:
Starting a priority scan.

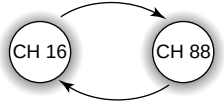


NOTE:
• When a signal is received, the scan pauses until the signal disappears, or resumes after pausing for 5 seconds, depending on the "Scan Timer" setting. (p. 88)
• You can check the scanning channel, change the scan direction, or manually resume the scan by pushing [▲] or [▼] on either the transceiver or the microphone.
• A beep tone sounds and "16" blinks when a signal is received on Channel 16 during a Priority scan.
• In order to properly receive signals, you must adjust the squelch to the proper level. (p. 18)

DUALWATCH/TRI-WATCH (Except for the Dutch version)

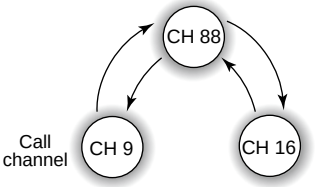
■ Description

Dualwatch and Tri-watch are convenient for monitoring Channel 16 while you are listening on another channel.



Monitors Channel 16 while listening on another channel (example: CH 88).

Dualwatch



Monitors Channel 16 and the Call channel while listening on another channel (example: CH 88).

Tri-watch

When a signal is received:

• On Channel 16

Dualwatch or Tri-watch pauses on Channel 16 until the signal disappears.

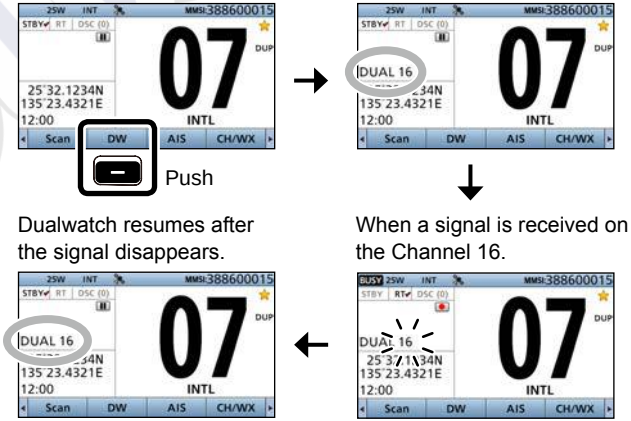
• On the Call channel

Tri-watch switches to Dualwatch until the signal on the Call channel disappears.

■ Operation

1. Select Dualwatch or Tri-watch in the Menu screen. (p. 89)
2. Select a channel. (p. 14)
3. Push [DW] ▬ or [TW] ▬ to start Dualwatch or Tri-watch.
   - During Dualwatch, “DUAL 16” is displayed.
   - During Tri-watch, “TRI 16” is displayed.
   - A beep tone sounds and “16” starts to blink when a signal is received on Channel 16.
4. Push [DW] ▬ or [TW] ▬ again to cancel Dualwatch or Tri-watch.

Example: Operating Dualwatch on Channel 07.

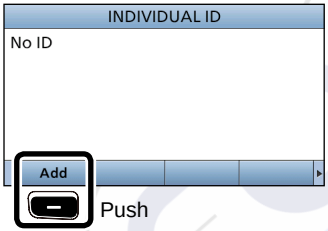


■ DSC address ID

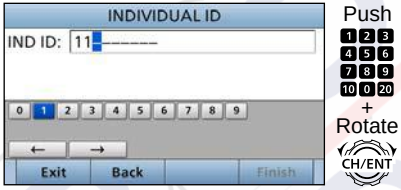
You can enter a total of 100 DSC address IDs (Individual ID: 75, Group ID: 25), and assign a name of up to 10 characters to each ID.

◇ Entering an Individual ID

1. Push [MENU].
2. Select “Individual ID,” then push [ENT].
   (DSC Settings > **Individual ID**)
3. Push [Add] [—].

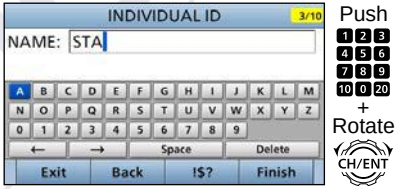


4. Enter a 9 digit Individual ID.



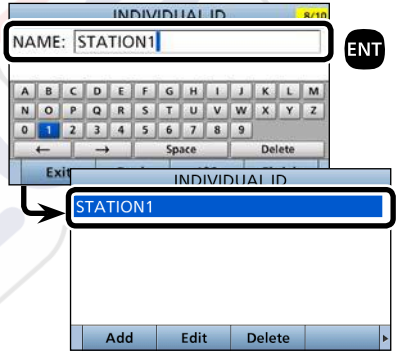
TIP: You must set the first digit for the Individual ID to between ‘1’ and ‘9.’
- A ‘0’ in the first digit is used for a Group ID.
- A ‘0’ in the first two digits is used for any Coast station ID.

5. After entering all 9 digits, push [Finish] [—].
6. Enter the ID name.



ⓘ See page 20 for text entry details.

7. After entering, push [ENT].

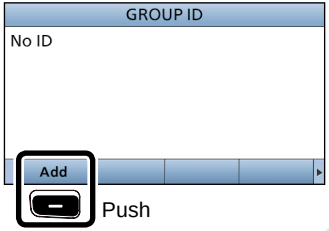


- The entered Individual ID and name are added to the ID list.

8. Push [MENU] to return to the Main screen.

◇ Entering the Group ID

1. Push [MENU].
2. Select “Group ID,” then push [ENT].
   (DSC Settings > **Group ID**)
3. Push [Add] [—].



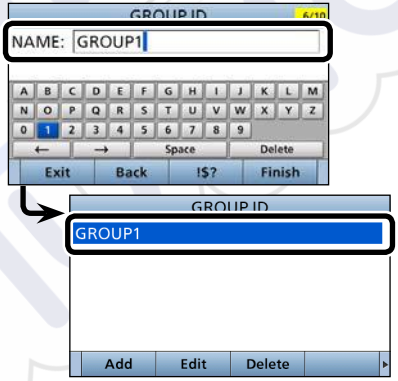
4. Enter a 9 digit Group ID.

TIP: You must set the first digit for a Group ID to ‘0.’
- The first digit must be set to between ‘1’ and ‘9’ for an Individual ID.
- A ‘0’ in the first two digits is used for any Coast station ID.

5. After entering all 9 digits, push [Finish] [—].
6. Enter the ID name.

ⓘ See page 20 for text entry details.

7. After entering, push [Finish] [—].

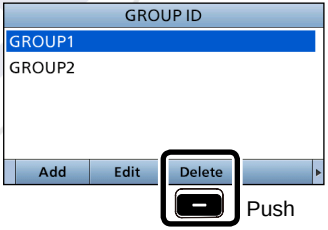


- The entered Group ID and name are added to the ID list.

8. Push [MENU] to return to the Main screen.

◇ Deleting an entered ID

1. Push [MENU].
2. Select “Individual ID” or “Group ID,” then push [ENT].
   (DSC Settings > **Individual ID**)
   (DSC Settings > **Group ID**)
3. Rotate [CH/ENT] to select the ID to delete.
4. Push [Delete] [—].



- The exit confirmation dialog is displayed.

5. Push [OK] [—].
   - After deleting, returns to the ID list screen.
6. Push [MENU] to return to the Main screen.

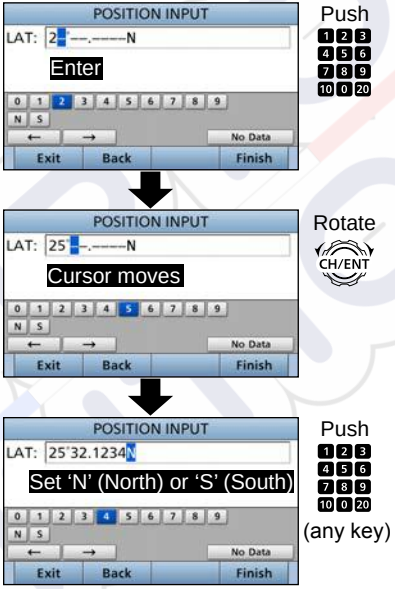
■ Entering the position and time

A Distress call should include the ship's position and time.
When a GPS receiver compatible with the NMEA 0183 format is connected, position and UTC time are automatically included.
If no GPS data is received, you should manually enter your position (latitude and longitude) and Universal Time Coordinated (UTC) time.

- Manual entry is disabled when a valid GPS data is received.
- Manually entered position and time are valid for only 23.5 hours.

1. Push [MENU].
2. Select "Position Input," then push [ENT].
   (DSC Settings > **Position Input**)

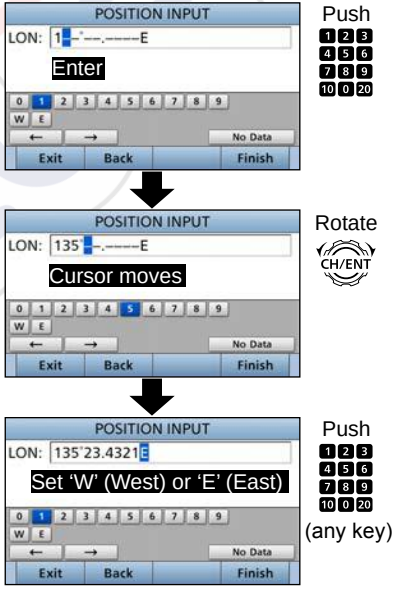
3. Enter your position's latitude.



To select 'N' (North latitude) or 'S' (South latitude), push any keypad key when the cursor is on the 'N' or 'S' position.

4. After entering, push [Finish] (—).

5. Enter your position's longitude.

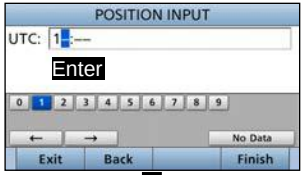


ⓘ To select W (West longitude) or E (East longitude), push any keypad key when the cursor is on the 'W' or 'E' position.

6. After entering, push [Finish] (—).

■ Entering the position and time (Continued)

7. Enter your UTC time.



Push [1 2 3] [4 5 6] [7 8 9] [10 0 20]

Rotate CH/ENT

Push [1 2 3] [4 5 6] [7 8 9] [10 0 20] (any key)

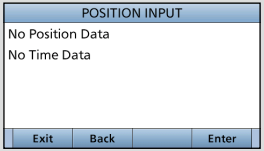
8. After entering, push [Finish] [—].
   • The DSC SETTINGS screen is displayed.
9. Push [MENU] to return to the Main screen.

When position and time data are set, Latitude, Longitude and UTC time are displayed.

- Latitude: 25°32.1234N
- Longitude: 135°23.4321E
- UTC time: 12:00

When no position and time data are set, “No Position” and “No Time” are displayed.

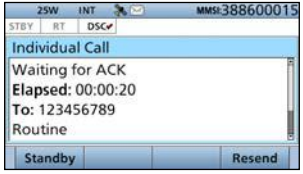
NOTE:
While entering:
- To move the cursor:
  Rotate [CH/ENT].
- To correct the entry:
  Move the cursor to the character, then enter the correct character.
- To clear the entry:
  Push [▲], [▼], [◀], or [▶] to select “No Data,” then push [ENT].
  When the following screen is displayed, push [ENT].



- To return to the Main screen:
  Push [Exit] [—].
- To go back to the previous screen:
  Push [Back] [—].

■ DSC Task mode (Single)

After sending or receiving a DSC call, the transceiver enters the DSC Task mode.



(Example: After transmitting an Individual call)

In the Task mode, you can resend the call, or send an acknowledgement to the caller station, and so on.

NOTE: The Task mode has a Time-out Timer (TOT) function. When you push no key for a preset period of time, the transceiver automatically exits the Task mode.
A count down alarm sounds 10 seconds before the TOT activates.
No count down alarm sounds before Radio Telephone TOT activates. You can set the TOT function in the INACTIVITY TIMER menu. (p. 86)
The default settings of the TOT function:
• Distress call: OFF
• Non-Distress call: 15 minutes

◇ Software key functions

When entering the Task mode, the following functions are displayed first.

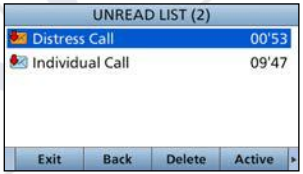
FUNCTION	DESCRIPTION
Standby	Push to delete the task and returns to the Main screen.
Resend	Push to resend the call.

The following functions may be displayed, depending on the call type.

FUNCTION	DESCRIPTION
Cancel	Push to send a Cancel call.
Pause	Push to pause the 'Call repeat' mode, or pause the countdown.
Resume	Push to resume the countdown.
Finish	Push to exit the Distress cancel statement screen.
History	Push to display the Distress call history screen.
ACK/ ACK (able)	Push to send an acknowledgment without any changes.
ACK (Unable)	Push to send an acknowledgment, but you cannot make a communication.
ACK (New CH)	Send an acknowledgment. You can specify the Voice Communication channel.

◇ Unread List

If the transceiver has unread DSC calls, you can enter the UNREAD LIST menu by pushing [Unread List] [—].



ⓘ Push [Active] [—] to enter the task mode.
ⓘ Push [Info] [—] to display the detail of selected task.

8

■ DSC Task mode (Multiple)

(For only the USA version, depending on the presetting.)

If the Multiple task is enabled, the transceiver can hold up to 7 tasks. Therefore, you can make more than 2 DSC calls in parallel. The number of task is displayed in the Task area.

(Example: After transmitting a Group call)

To use the Multiple task mode, select "Multiple" in the PROCEDURE menu (p. 64).

NOTE: The Task mode has a Time-out Timer (TOT) function. When you push no key for a preset period of time, the transceiver automatically exits the Task mode.
A count down alarm sounds 10 seconds before the TOT activates.
No count down alarm sounds before Radio Telephone TOT activates. You can set the TOT function in the INACTIVITY TIMER menu. (p. 86)

The default settings of the TOT function:
- Distress call: OFF
- Non-Distress call: 15 minutes

◇ Software key functions

When entering the Task mode, the following functions are displayed first.

FUNCTION	DESCRIPTION
Standby	Push to hold the task and returns to the Main screen.
Delete	Push to delete the task and display the Task list.
Hold	Push to hold the task and display the Task list.
Task List	Push to display the Task list.
Resend	Push to resend the call.

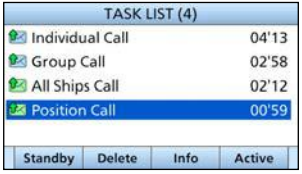
The following functions may be displayed, depending on the call type.

FUNCTION	DESCRIPTION
Cancel	Push to send a Cancel call.
Pause	Push to pause the 'Call repeat' mode, or pause the countdown.
Resume	Push to resume the countdown.
Finish	Push to exit the Distress cancel statement screen.
History	Push to display the Distress call history screen.

FUNCTION	DESCRIPTION
ACK/ ACK (Able)	Push to send an acknowledgment without any changes.
ACK (Unable)	Push to send an acknowledgment, but you cannot make a communication.
ACK (New CH)	Send an acknowledgment. You can specify the Voice Communication channel.

◇ Task List

When the number of task is displayed in the standby mode, you can enter the task mode by pushing [Task List] [—] .



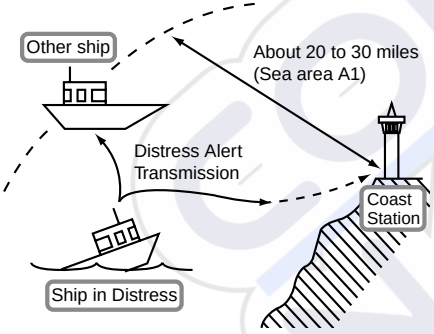
ⓘ Push [Info] [—] to display the details of selected task.

■ Sending a Distress call

NEVER MAKE A DISTRESS CALL IF YOUR SHIP OR A PERSON IS NOT IN AN EMERGENCY.
A DISTRESS CALL SHOULD BE MADE ONLY WHEN IMMEDIATE HELP IS NEEDED.

You should send a Distress call if, in the opinion of the Master, the ship or a person is in distress and requires immediate assistance.

ⓘ Emergency channel (Channel 70) is automatically selected to send a Distress call.

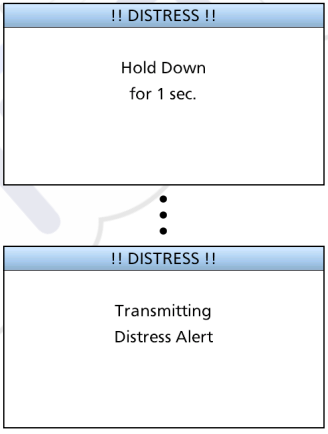


See **NOTE** on page 33 for a Distress call.

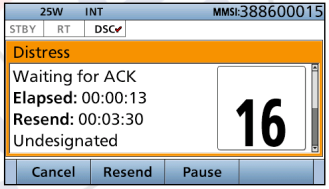
TIP: If you want to compose a Distress call, see ‘Regular call.’ (p. 32)

◇ Simple call

1. Confirm no Distress call is being received.
2. Lift up the key cover, then hold down [DISTRESS] until “Transmitting” is displayed to send the Distress call.
   • While holding down [DISTRESS], count down beeps sound and both the key and display backlighting blink.

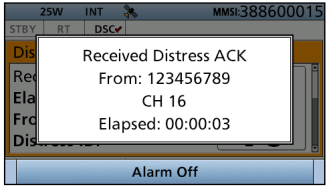


3. After sending, the following screen is displayed.



• Channel 16 is automatically selected.

4. When receiving the acknowledgement:
   • Alarm sounds.
   • The following screen is displayed.



5. Push any [Alarm Off] [—].
6. Push any [Close Call RCVD Window] [—].
7. Hold down [PTT] to announce your situation.
8. Push [Standby] [—] to return to the Main screen.

■ Sending a Distress call (Continued)

◇ Regular call

You can compose a Distress call.

Step 1. Display the COMPOSE DISTRESS screen

1. Push [Compose Distress] (–).

ⓘ To display the screen from the Menu screen:
([MENU] > **Compose Distress**)

Step 2. Setting “Nature of Distress”

1. Push [ENT].

2. Select the option, then push [ENT]. (Example: Fire,Explosion)

Options:
Undesignated, Fire,Explosion, Flooding, Collision, Grounding, Capsizing, Sinking, Adrift, Abandoning Ship, Piracy, and Man Overboard.

ⓘ The transceiver stores this setting for 30 seconds.

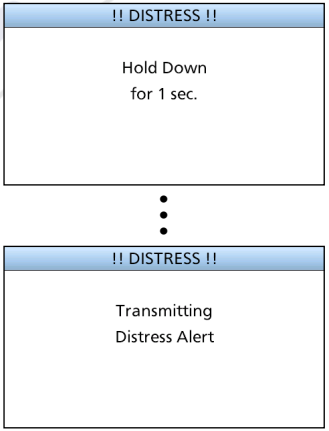
You can skip Step 3 below if your position and time data are valid.
In that case, go to Step 4.

Step 3. Entering “Position”

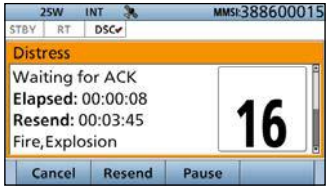
1. Select “Position,” then push [ENT].
   • The position entry screen is displayed.
2. Enter your position and time data.
   ⓘ See page 27 for entering details.
3. After entering, push [ENT].

Step 4. Sending

1. Lift up the key cover, then hold down [DISTRESS] until “Transmitting” is displayed to send the Distress call.
   • While holding down [DISTRESS], count down beeps sound and both the key and display backlighting blink.



2. After sending, the following screen is displayed.

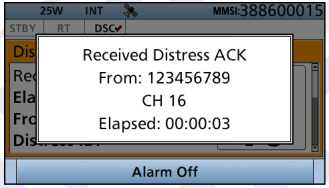


• Channel 16 is automatically selected.

ⓘ See page 29 or page 30 for details of the Task mode's software key functions.

Step 5. Replying

1. When the acknowledgement is received:
   • Alarm sounds.
   • The following screen is displayed.



2. Push any [Alarm Off] [—].
3. Push any [Close Call RCVD Window] [—].
4. Hold down [PTT] to announce your situation.
5. Push [Standby] [—] to return to the Main screen.

NOTE:
Transmitting:
• A distress alert default contains:
  - Nature of distress:
    Undesignated distress (Simple call)
    Selected in Step 2 (Regular call)
  - Position information:
    The latest GPS or manual input position is held for 23.5 hours, or until the power is turned OFF.

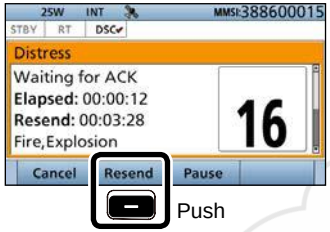
Waiting for an acknowledgement:
• The transceiver automatically sends a Distress call every 3.5 to 4.5 minutes, until receiving an acknowledgement ('Call repeat' mode), or sending a DSC Cancel call. (p. 35)
• To manually send a Distress Repeat call:
  Push [Resend] [—].
• To view the call contents:
  Rotate [CH/ENT].
• To pause the 'Call repeat' mode:
  Push [Pause] [—].
  To resume it:
  Push [Resume Countdown] [—].

■ Sending a Distress call (Continued)

◇ Resending a Distress call

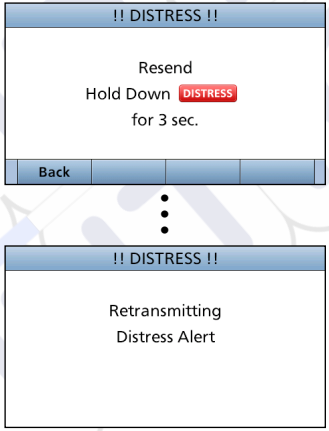
While waiting for an acknowledgement, you can resend the call. (Repeat call)

1. When “Waiting for ACK” is displayed, push [Resend] [—].

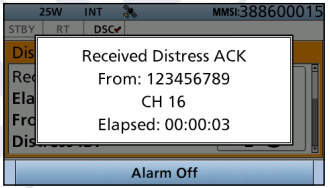


ⓘ See page 29 or page 30 for details of the Task mode’s software key functions.

2. Lift up the key cover, then hold down [DISTRESS] until “Retransmitting” is displayed to resend the call.
   • While holding down [DISTRESS], count down beeps sound, and both the key and display backlighting blink.



3. When the acknowledgement is received:
   • Alarm sounds.
   • The following screen is displayed.

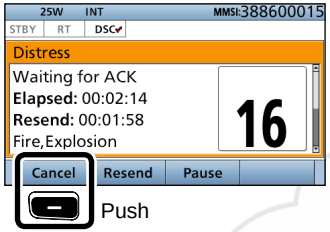


4. Push any [Alarm Off] [—].
5. Push any [Close Call RCVD Window] [—].
6. Hold down [PTT] to announce your situation.
7. Push [Standby] [—] to return to the Main screen.

◇ Sending a Distress Cancel call

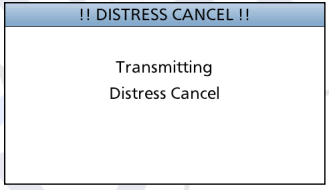
While waiting for an acknowledgement, you can send a Distress Cancel call.

1. When “Waiting for ACK” is displayed, push [Cancel] [—].

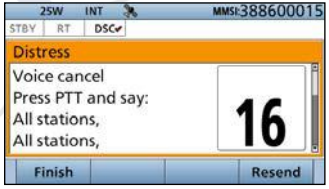


ⓘ See page 33 for details of the Task mode’s Software key functions.

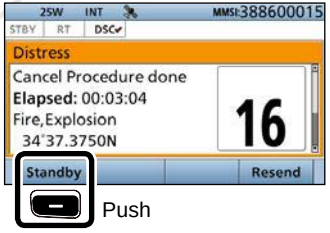
2. Push [Continue] [—] to send a Distress Cancel call.



3. After sending, the following screen is displayed.



4. Hold down [PTT] to announce your cancel statement.
   ⓘ Rotate [CH/ENT] to view the cancel statement of the Distress Cancel call.
5. Select the action.
   [Finish]: Finishes the Distress Cancel procedures.
   [Resend]: Sends a Distress Cancel call again.
6. Push [Standby] [—] to return to the Main screen.



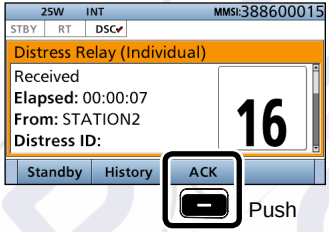
■ Sending a Distress call (Continued)

◇ Sending a Distress Relay acknowledgement

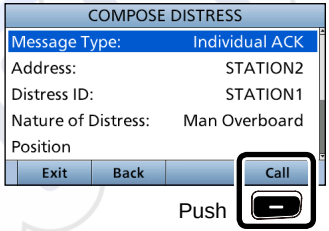
You can send the Distress Relay acknowledgment only when a Distress Relay call is received.

1. When a Distress Relay call is received:
   • Alarm sounds.
   • The following screen is displayed.

2. Push any [Alarm Off] [—].
3. Push [Accept] [—].
   • Enters the DSC Task mode.
4. Push [▶] to scroll the software key functions.
5. Push [ACK] [—].



   • The call contents screen is displayed.
   ⓘ Rotate [CH/ENT] to view the call contents.
6. Push [Call] [—] to send the Distress Relay acknowledgement.



7. Hold down [PTT] to communicate.
8. Push [Standby] [—] to return to the Main screen.

TIP: When you push [Pause] [—] in step 3, the countdown will be paused. Push [Resume] [—] to resume the countdown.

■ Sending a Non-Distress call

To ensure correct operation of the DSC function, confirm you correctly set the Channel 70 squelch level. (p. 63)

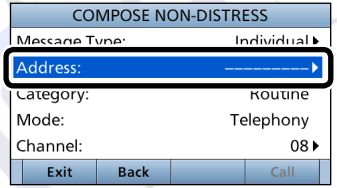
NOTE:
- Emergency channel (Channel 70) is automatically selected for calling.
- If Channel 70 is busy, the transceiver stands by until the channel becomes clear.

◇ Sending an Individual call

The Individual call function enables you to transmit a DSC call to only a specific coast station or to a ship. After transmission, wait for an acknowledgement from the receiving station.
You can communicate by voice after receiving the acknowledgement 'ACK (Able).'

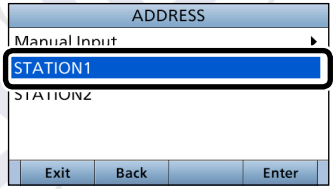
1. Push [Compose Other] [—] to display the COMPOSE NON-DISTRESS screen.

ⓘ To display the screen from the Menu screen:
([MENU] > **Compose Non-Distress**)



2. Push [ENT].

3. Select the individual address, or "Manual Input," then push [ENT]. (Example: STATION1)

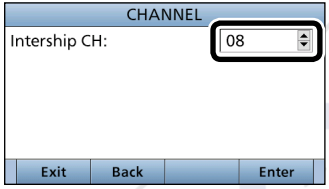


When you select "Manual Input" in step 3, push the keypad to manually enter the Individual ID that you want to call. (p. 25)

■ Sending a Non-Distress call (Continued)

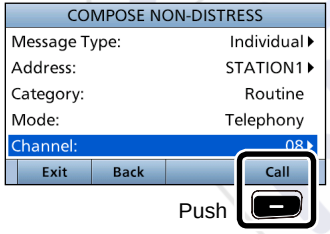
When you select a coast station in step 3, the voice channel is automatically specified by the coast station. Therefore, skip steps 4 and 5, and go to step 6.

4. Select “Channel,” then push [ENT].
5. Select the voice channel, then push [ENT].



Rotate CH/ENT + Push ENT

6. Push [Call] — to send the Individual call.

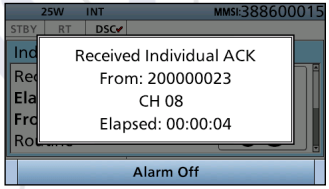


Push —

7. After sending, the following screen is displayed.

ⓘ See page 29 or page 30 for details of the Task mode’s Software key functions.

8. When the acknowledgement is received:
   - Alarm sounds.
   - The following screen is displayed. (Example: ACK (Able))



9. Push any [Alarm Off] —.
10. Push any [Close Call RCVD Window] —.

When you receive “ACK (Unable)” in step 8, skip step 11, and go to step 12.

11. Hold down [PTT] to communicate.
12. Push [Standby] — to return to the Main screen.

NOTE:
After receiving the acknowledgement:
- The voice channel specified in step 5 is selected.
- A different voice channel is selected if the station you called cannot use the channel.

◇ Sending an Individual acknowledgement

When receiving an Individual call, you can send an acknowledgement (‘Able,’ ‘Unable,’ or ‘New CH’) by using the on-screen prompts.

1. When an Individual call is received:
   • Alarm sounds.
   • The following screen is displayed.

2. Push any [Alarm Off] (—).
3. Push [Accept] (—).

Push (—)

• Enters the DSC Task mode.

4. Select your action.

[ACK (Able)]:
Sends an acknowledgment without any changes.
[ACK (Unable)]:
Sends an acknowledgment, but you cannot make a communication.
[ACK (New CH)]:
Sends an acknowledgment. You can specify the Voice Communication channel.

5. Push [Call] (—) to send the Individual acknowledgement.

When you push [ACK (Unable)] in step 5, skip step 7, and go to step 8.

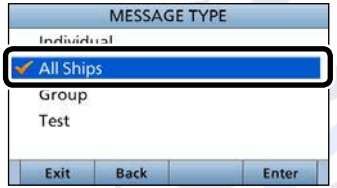
6. Hold down [PTT] to communicate.
7. Push [Standby] (—) to return to the Main screen.

■ Sending a Non-Distress call (Continued)

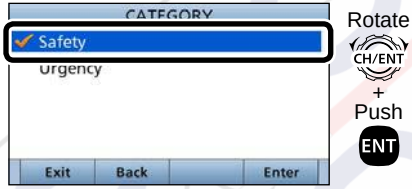
◇ Sending an All Ships call

All ships, that have DSC transceiver, use Channel 70 as their 'listening channel.' When you want to announce a message to these ships, if they are within range, use the 'All Ships Call' function.

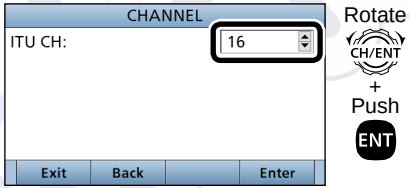
1. Push [Compose Other] [—] to display the COMPOSE NON-DISTRESS screen.
   ⓘ To display the screen from the Menu screen:
   ([MENU] > **Compose Non-Distress**)
2. Select "Message Type," then push [ENT].



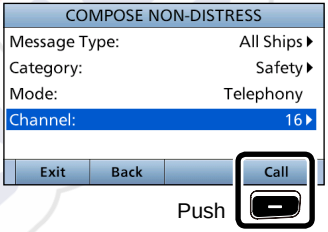
3. Select "All Ships," then push [ENT].
4. Select "Category," then push [ENT].
5. Select the option, then push [ENT]. (Example: Safety)



6. Select "Channel," then push [ENT].
7. Select the voice channel, then push [ENT].



8. Push [Call] [—] to send the All ships call.



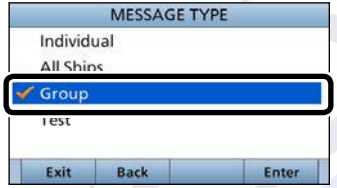
9. After sending, the following screen is displayed.

   ⓘ See page 29 or page 30 for details of the Task mode's software key functions.
10. Hold down [PTT] to announce your message.
11. Push [Standby] [—] to return to the Main screen.

◇ Sending a Group call

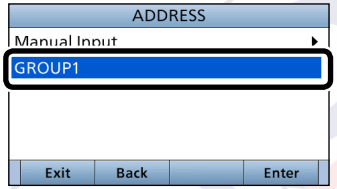
The Group call function allows you to transmit a DSC call to only a specific group.

1. Push [Compose Other] [—] to display the COMPOSE NON-DISTRESS screen.
   ⓘ To display the screen from the Menu screen:
   ([MENU] > **Compose Non-Distress**)
2. Select “Message Type,” then push [ENT].
3. Select “Group,” then push [ENT].



Rotate CH/ENT + Push ENT

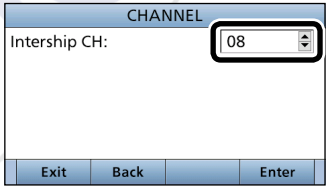
4. Select “Address,” then push [ENT].
5. Select the Group address or “Manual Input,” then push [ENT]. (Example: GROUP1)



Rotate CH/ENT + Push ENT

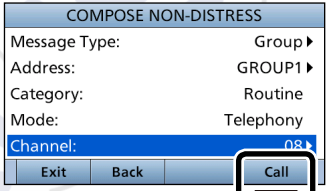
When you select “Manual Input” in step 5, push the keypad to manually enter the Group ID. (p. 26)

6. Select “Channel,” then push [ENT].
7. Select the voice channel, then push [ENT].



Rotate CH/ENT + Push ENT

8. Push [Call] [—] to send the Group call.



Push [—]

9. After sending, the following screen is displayed.

ⓘ See page 29 or page 30 for details of the Task mode’s software key functions.

10. Hold down [PTT] to announce the message.
11. Push [Standby] [—] to return to the Main screen.

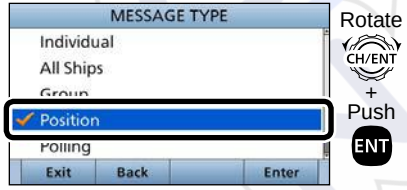
■ Sending a Non-Distress call (Continued)

◇ **Sending a Position Request call/Polling Request call** (For only the USA version)

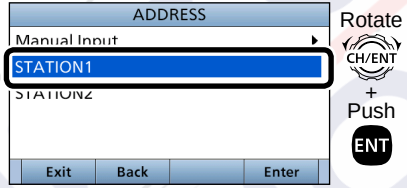
- Send a Position Request call when you want to know a specific ship's current position, and so on.
- Send a Polling Request call when you want to know if a specific vessel is in the communication area, or not.

Example: Sending a Position Request call

1. Push [Compose Other] [—] to display the COMPOSE NON-DISTRESS screen.
   ⓘ To display the screen from the Menu screen: ([MENU] > **Compose Non-Distress**)
2. Select "Message Type," then push [ENT].
3. Select the call to send, then push [ENT].

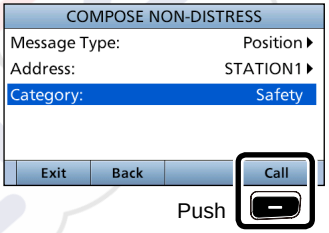


4. Select "Address," then push [ENT].
5. Select an Individual address, or "Manual Input." (Example: STATION1)

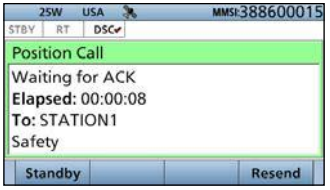


When you select "Manual Input" in step 5, push the keypad to manually enter the Individual ID that you want to call.

6. Push [Call] [—] to send the call.



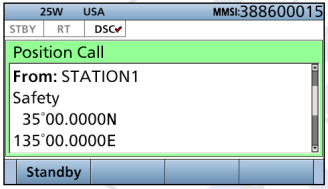
7. After sending, the following screen is displayed.



ⓘ See page 29 or page 30 for details of the Task mode's software key functions.

8. When the Reply call is received:
   • Alarm sounds.
   • The following screen is displayed.

9. Push any [Alarm Off] [—].
10. Push any [Close Call RCVD Window] [—].
    • The call contents screen is displayed.
    ⓘ Rotate [CH/ENT] to view the call contents.



11. Push [Standby] [—] to return to the Main screen.

◇ Sending a Position Request acknowledgement

When a Position Request call is received, you can send an acknowledgement.

1. When a Position Request call is received:
   • Alarm sounds.
   • The following screen is displayed.

2. Push any [Alarm Off] [—].
3. Push [Accept] [—].
   • Enters the DSC Task mode.
4. Select your action.

[ACK (Able)]:
Sends an acknowledgment with position and time data.
[ACK (Unable)]:
Sends an acknowledgment with no position and time data.
ⓘ The call contents screen is displayed.
ⓘ Rotate [CH/ENT] to view the call contents.
• Change your position data, if the displayed data is invalid. (p. 27)

5. Push [Call] [—] to send the acknowledgement.
   • When [ACK (Able)] is selected in step 5, your position and time data are transmitted.
6. Push [Standby] [—] to return to the Main screen.

TIP: When “Position ACK” is set to Auto, the transceiver automatically sends the acknowledgement. (p. 60)

■ Sending a Non-Distress call (Continued)

◇ Sending a Polling Reply call (For only the USA version)

Send a Polling Reply call when a Polling Request call is received.

1. When a Polling Request call is received:
   • Alarm sounds.
2. Push any [Alarm Off] [—].
3. Push [Accept] [—].

Push [—]

• Enters the DSC Task mode.

4. Push [ACK] [—].

Push [—]

• The call contents screen is displayed.
ⓘ Rotate [CH/ENT] to view the call contents.

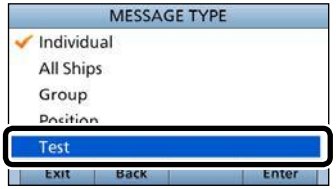
5. Push [Call] [—] to send the Reply call.
6. Push [Standby] [—] to return to the Main screen.

TIP: When “Polling ACK” is set to “Auto,” the transceiver automatically sends the call.

◇ Sending a Test call

Testing on the exclusive DSC distress and safety calling channels should be avoided as much as possible by using other methods.
Normally the Test call would require no further communications between the two stations involved.

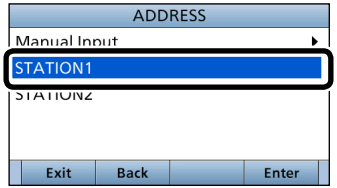
1. Push [Compose Other] [—] to display the COMPOSE NON-DISTRESS screen.
   ⓘ To display the screen from the Menu screen:
   ([MENU] > **Compose Non-Distress**)
2. Select “Message Type,” then push [ENT].
3. Select “Test.”



Rotate CH/ENT + Push ENT

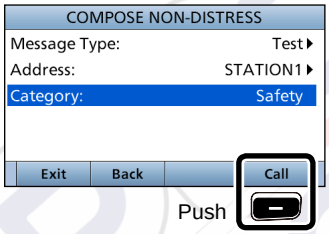
4. Select “Address,” then push [ENT].

5. Select the Individual address, or "Manual Input."
(Example: STATION1)

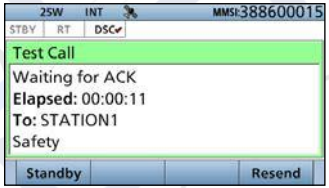


When you select "Manual Input" in step 5, push the keypad to manually enter the Individual ID. (p. 25)

6. Push [Call] [—] to send the Test call.

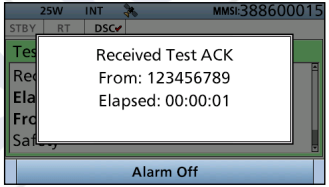


7. After sending, the following screen is displayed.



ⓘ See page 29 or page 30 for details of the Task mode's Software key functions.

8. When the acknowledgement is received:
• Alarm sounds.
• The following screen is displayed.



9. Push any [Alarm Off] [—].
10. Push any [Close Call RCVD Window] [—].
• Enters the DSC Task mode.
11. Rotate [CH/ENT] to view the received message log.
12. Push [Standby] [—] to return to the Main screen.

■ Sending a Non-Distress call (Continued)

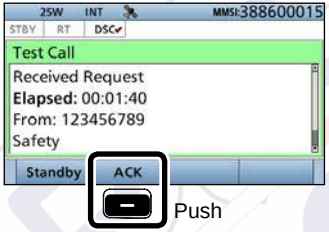
◇ Sending a Test call acknowledgement

When a Test call is received, you can send an acknowledgement.

1. When a Test call is received:
   • Alarm sounds.
2. Push any [Alarm Off] [—].
3. Push [Accept] [—].

• Enters the DSC Task mode.

4. Push [ACK] [—].



• The call contents screen is displayed.
ⓘ Rotate [CH/ENT] to view the call contents.

5. Push [Call] [—] to send the acknowledgement.
6. Push [Standby] [—] to return to the Main screen.

TIP: When “Test ACK” is set to “Auto,” the transceiver automatically sends the acknowledgement. (p. 60)

■ Receiving DSC calls

NOTE: After receiving a DSC call
"✉" continuously blinks when the transceiver has DSC call, or an unread DSC message in the Received Call Log. (p. 58)

◇ Receiving a Distress Call

IMPORTANT!
Distress call reception should stop after one sequence because the coast station should send back an 'acknowledgement' to the ship.
If the distress call continues, even after the coast station sends back an 'acknowledgement,' the ship in distress may not receive the acknowledgement.

1. When a Distress call is received:
   • Alarm sounds.
   • The following screen is displayed and the backlight blinks.
   • "✉" blinks.

2. Push any [Alarm Off] (—).
3. Select your action.

[Ignore]*: Ignores the Call and returns to the Main screen.
* Displayed only when "Single" is selected in the PROCEDURE menu. (p. 64)

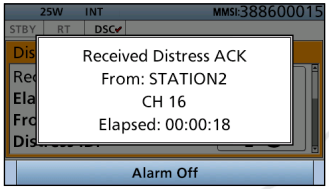
[Hold]: Holds the RX call task, and returns to the Main screen.
[Pause]: Pauses the countdown.
• To restart the countdown, push [Resume] (—).
[Accept]: Enters the DSC Task mode. To send the acknowledgement, push [Accept] (—).

DSC Task mode (pp. 29, 30)
• Automatically selects Channel 16, and then you should monitor it, because a coast station may require assistance.
• Rotate [CH/ENT] to view the call contents.

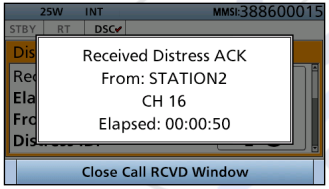
■ Receiving DSC calls (Continued)

◇ Receiving a Distress acknowledgement

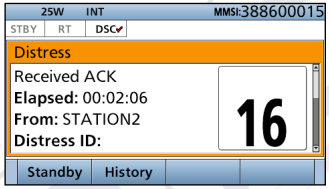
1. When a Distress acknowledgement sent to another ship is received:
   - Alarm sounds.
   - The following screen is displayed and the backlight blinks.
   - "✉" blinks.



2. Push any [Alarm Off] (—).
3. Push any [Close Call RCVD Window] (—).



   - Enters the DSC Task mode.



DSC Task mode (pp. 29, 30)

   - Automatically selects Channel 16, and then monitor it, because a coast station may require assistance.
   - Rotate [CH/ENT] to view the call contents.

4. Push [Standby] (—) to return to the Main screen.

◇ Receiving a Distress Cancel call

1. When a Distress Cancel call is received:
   - Alarm sounds.
   - The following screen is displayed and the backlight blinks.
   - "✉" blinks.

2. Push any [Alarm Off] (—).
3. Select your action.

[Ignore]*: Ignores the Call and returns to the Main screen.
* Displayed only when "Single" is selected in the PROCEDURE menu. (p. 64)

[Hold]: Holds the RX call task, and returns to the Main screen.

[Pause]: Pauses the countdown.
• To restart the countdown, push [Resume] [—].

[Accept]: Enters the DSC Task mode.

DSC Task mode (pp. 29, 30)
• Automatically selects Channel 16, and then you should monitor it, because a coast station may require assistance.
• Rotate [CH/ENT] to view the call contents.

4. Push [Standby] [—] to return to the Main screen.

◇ Receiving a Distress Relay call

1. When a Distress Relay call is received:
   • Alarm sounds.
   • The following screen is displayed and the backlight blinks.
   • "✉" blinks.

2. Push any [Alarm Off] [—].
3. Select the action.

[Ignore]*: Ignores the Call and returns to the Main screen.
* Displayed only when "Single" is selected in the PROCEDURE menu. (p. 64)

[Hold]: Holds the RX call task, and returns to the Main screen.

[Pause]: Pauses the countdown.
• To restart the countdown, push [Resume] [—].

[Accept]: Enters the DSC Task mode.
To send the acknowledgement, push [Accept] [—].

DSC Task mode (pp. 29, 30)
• Automatically selects Channel 16, and then monitor it, because a coast station may require assistance.
• Rotate [CH/ENT] to view the call contents.

4. Push [Standby] [—] to return to the Main screen.

TIP: See page 36 for details of sending acknowledgement.

■ Receiving DSC calls (Continued)

◇ Receiving a Distress Relay acknowledgement

1. When a Distress Relay acknowledgement is received:
   - Alarm sounds.
   - "✉" blinks.
   - The following screen is displayed and the backlight blinks.

2. Push any [Alarm Off] [—].
3. Push any [Close Call RCVD Window] [—].

   - Enters the DSC Task mode.

DSC Task mode (pp. 29, 30)

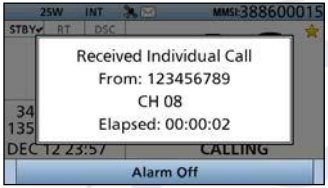
- Automatically selects Channel 16, and then you should monitor it, because a coast station may require assistance.
- [PTT] is activated for voice communication via Channel 16.
- Rotate [CH/ENT] to view the call contents.

4. Push [Standby] [—] to return to the Main screen.

◇ Receiving an Individual call

NOTE: When the "Individual ACK" item is set to "Auto," the transceiver automatically sends an acknowledgement. Both the TX and RX calls are stored in the Transmitted and Received Call Logs. (pp. 58, 59)

1. When an Individual call is received:
   - Alarm sounds.
   - The following screen is displayed and the backlight blinks.
   - "✉" blinks.



2. Push any [Alarm Off] (—).
3. Select your action.

[Ignore]*: Ignores the Call and returns to the Main screen.
* Displayed only when "Single" is selected in the PROCEDURE menu. (p. 64)

[Hold]: Holds the RX call task, and returns to the Main screen.

[Able]: Sends an acknowledgment without any changes.

[Accept]: Enters the DSC Task mode.

DSC Task mode (pp. 29, 30)

- Rotate [CH/ENT] to view the call contents.

When you select [Accept] (—) in step 3, you can send an acknowledgement in the DSC Task mode. To send the acknowledgement, go to step 4.
If you return to the Main screen without sending the acknowledgement, go to step 7.

4. Push the key to select an acknowledgement option.
5. Push [Call] (—) to send the Individual acknowledgement.
6. Depending on the option selected in step 5, hold down [PTT] to communicate.
7. Push [Standby] (—) to return to the Main screen.

TIP: When you send the acknowledgement, select one of three options, depending on your situation. See page 39 for details of the Individual acknowledgement procedures.

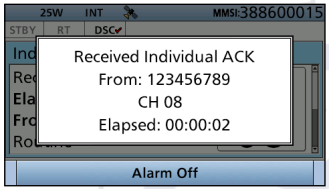
■ Receiving DSC calls (Continued)

◇ Receiving an Individual acknowledgement

When receiving "ACK (Able)":

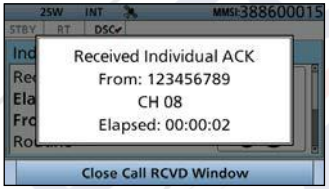
You can make voice communication on the channel that you specified when you sent the call.

1. When an Individual acknowledgement "ACK (Able)" is received:
   - Alarm sounds.
   - The following screen is displayed and the backlight blinks.
   - "✉" blinks.



2. Push any [Alarm Off] (—).

3. Push any [Close Call RCVD Window] (—).



- Enters the DSC Task mode.

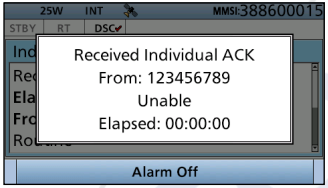
DSC Task mode (pp. 29, 30)

- Automatically selects the channel that you specified when you sent the call for voice communication.
- Rotate [CH/ENT] to view the call contents.

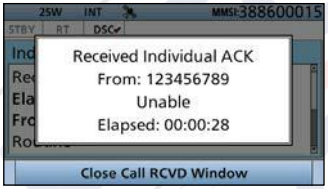
4. Hold down [PTT] to communicate.
5. Push [Standby] (—) to return to the Main screen.

When receiving "ACK (Unable)":
You cannot make the voice communication.

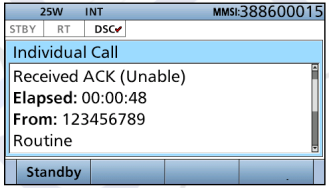
1. When an Individual acknowledgement "ACK (Unable)" is received:
   • Alarm sounds.
   • The following screen is displayed and the backlight blinks.
   • "✉" blinks.



2. Push any [Alarm Off] [—].
3. Push any [Close Call RCVD Window] [—].



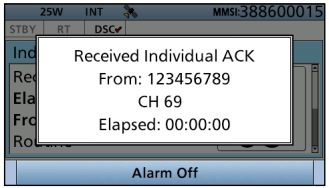
• Enters the DSC Task mode.



DSC Task mode (pp. 29, 30)
• Rotate [CH/ENT] to view the call contents.
4. Push [Standby] [—] to return to the Main screen.

When receiving "ACK (New CH)":
You can make voice communication on the channel that is proposed by the called station.

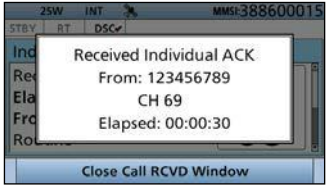
1. When an Individual acknowledgement "ACK (New CH)" is received:
   • Alarm sounds.
   • The following screen is displayed and the backlight blinks.
   • "✉" blinks.



2. Push any [Alarm Off] [—].

■ Receiving DSC calls (Continued)

3. Push any [Close Call RCVD Window] [—].



• Enter the DSC Task mode

DSC Task mode (pp. 29, 30)

• Automatically selects the channel that is proposed by the called station for voice communication.
• Rotate [CH/ENT] to view the call contents.

4. Hold down [PTT] to communicate.
5. Push [Standby] [—] to return to the Main screen.

◇ Receiving an All Ships call

1. When an All Ships call is received:
   • Alarm sounds.
   • The following screen is displayed and the backlight blinks.
   • "✉" blinks.

2. Push any [Alarm Off] [—].
3. Select your action.

[Ignore]*: Ignores the Call and returns to the Main screen.
* Displayed only when "Single" is selected in the PROCEDURE menu. (p. 64)

[Hold]: Holds the RX call task, and returns to the Main screen.

[Pause]: Push [Pause] [—] to pause the countdown.
• To restart the countdown, push [Resume] [—].

[Accept]: Push [Accept] [—] to enter the DSC Task mode.

DSC Task mode (pp. 29, 30)

• Monitor the channel specified by the calling station for an announcement from the calling station. (Example: Channel 16)
• Rotate [CH/ENT] to view the call contents.

4. Push [Standby] [—] to return to the Main screen.

◇ Receiving a Group call

1. When a Group call is received:
   - Alarm sounds.
   - The following screen is displayed and the backlight blinks.
   - "✉" blinks.

2. Push any [Alarm Off] (—).
3. Select your action.

[Ignore]*: Ignores the Call and returns to the Main screen.
* Displayed only when "Single" is selected in the PROCEDURE menu. (p. 64)

[Hold]: Holds the RX call task, and returns to the Main screen.

[Pause]: Pauses the countdown.
- To restart the countdown, push [Resume] (—).

[Accept]: Enters the DSC Task mode.

DSC Task mode (pp. 29, 30)
- Monitor the channel specified by the calling station for an announcement from the calling station. (Example: Channel 08)
- Rotate [CH/ENT] to view the call contents.

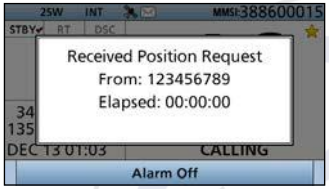
4. Push [Standby] (—) to return to the Main screen.

■ Receiving DSC calls (Continued)

◇ Receiving a Position Request call

NOTE: When “Position ACK” is set to “Auto,” the transceiver automatically replies to the call. Both the TX and RX calls are stored in the Transmitted and Received Call Logs. (Default: Manual)

1. When a Position Request call is received:
   • Alarm sounds.
   • The following screen is displayed and the backlight blinks.



2. Push any [Alarm Off] (—).
3. Select your action.

[Ignore]*:
Ignores the Call and returns to the Main screen.
* Displayed only when “Single” is selected in the PROCEDURE menu. (p. 64)
[Hold]:
Holds the RX call task, and returns to the Main screen.
[ACK (Unable)]:
Sends an acknowledgment with no position and time data.
[ACK (Able)]:
Sends an acknowledgment with position and time data.
[Accept]:
Enters the DSC Task mode.

DSC Task mode (pp. 29, 30)
• Rotate [CH/ENT] to view the call contents.

4. Push [Standby] (—) to return to the Main screen.

TIP: See page 43 for details of sending an acknowledgement.

◇ Receiving a Test call /Polling Request call*

*For only the USA version.

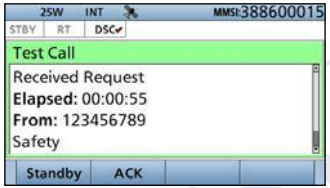
NOTE: When “Test ACK” or “Polling ACK” is set to “Auto,” the transceiver automatically replies to the call. Both the TX and RX calls are stored in the Transmitted and Received Call Logs.

Example: Receiving a Test call

1. When a call is received:
   • Alarm sounds.
   • The following screen is displayed and the backlight blinks.
   • “✉” blinks.

2. Push any [Alarm Off] (—).
3. Select your action.

[Ignore]*: Ignores the Call and returns to the Main screen.
* Displayed only when "Single" is selected in the PROCEDURE menu. (p. 64)
[Hold]: Holds the RX call task, and returns to the Main screen.
[ACK]: Sends an acknowledgment.
[Accept]: Enters the DSC Task mode.



DSC Task mode (pp. 29, 30)
• Rotate [CH/ENT] to view the call contents.

4. Push [Standby] [—] to return to the Main screen.

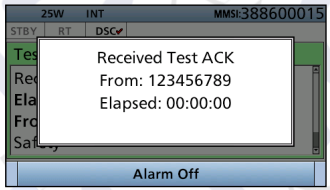
TIP: See page 46 for details of sending a Test acknowledgement.

◇ Receiving a Test acknowledgement/Position Reply call*/Polling Reply call*

*For only the USA version.

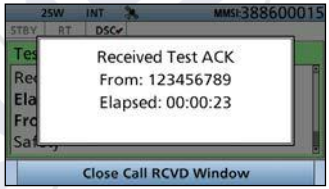
Example: Receiving a Test acknowledgement

1. When a call is received:
   • Alarm sounds.
   • The following screen is displayed and the backlight blinks.
   • "✉" blinks.

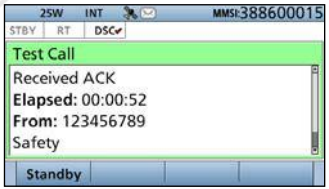


2. Push any [Alarm Off] [—].

3. Push any [Close Call RCVD Window] [—].



• Enters the DSC Task mode.



DSC Task mode (pp. 29, 30)
• Rotate [CH/ENT] to view the call contents.

4. Push [Standby] [—] to return to the Main screen.

■ Received Call log

The transceiver automatically stores up to 50 distress messages and 50 other messages, and they can be used as a supplement to your logbook.

- When there is an unread DSC message, "✉" blinks on the information area of the LCD.
- "✉" is displayed when there are unread DSC messages.
- "✉" is displayed when there are no unread DSC messages.
- No icon is displayed when there are no DSC messages.
- Distress messages are stored in "Distress."

Software key functions in the RECEIVED CALL LOG screen:

[Exit]: Push to return to the Main screen.
[Back]: Push to return to the previous screen.
[Delete]: Push to delete the selected message.
[Enter]: Push to go to the next screen.

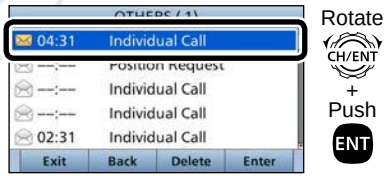
◇ Distress message

1. Push [DSC Log] [—] to display the RECEIVED CALL LOG screen.
   - To display the screen from the Menu screen:
     ([MENU] > DSC Log > **Received Call Log**)
2. Select "Distress," then push [ENT].
3. Select the message, then push [ENT].

4. Rotate [CH/ENT] to view the contents.
   - To view another message, push [CLR] to return to the previous screen. Then select the message.
5. Push [Exit] [—] to return to the Main screen.

◇ Other messages

1. Push [DSC Log] [—] to display the RCVD CALL LOG screen.
   - To display the screen from the Menu screen:
     ([MENU] > DSC Log > **Received Call Log**)
2. Select "Others," then push [ENT].
3. Select the message, then push [ENT].



4. Rotate [CH/ENT] to view the contents.
   - To view another message, push [CLR] to return to the previous screen. Then select the message.
5. Push [Exit] [—] to return to the Main screen.

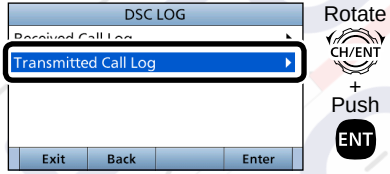
■ Transmitted Call log

The transceiver automatically stores up to 50 transmitted calls, and the logs can be used as a supplement to your logbook.

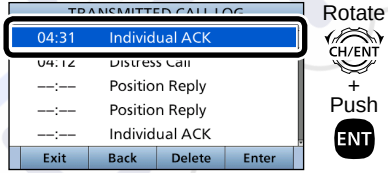
Software key functions in the TRANSMITTED CALL LOG screen:

[Exit]: Push to return to the Main screen.
[Back]: Push to return to the previous screen.
[Delete]: Push to delete the selected message.
[Enter]: Push to go to the next screen.

1. Push [MENU].
2. Select “Transmitted Call Log.” (DSC Log > **Transmitted Call Log**)



3. Select the message, then push [ENT].



4. Rotate [CH/ENT] to view the contents.
   • To view another message, push [CLR] to return to the previous screen. Then select the message.
5. Push [Exit] [—] to return to the Main screen.

■ DSC Settings

◇ Position Input (See page 27)
◇ Individual ID (See page 25)
◇ Group ID (See page 26)

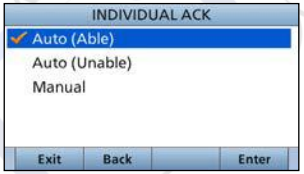
◇ Automatic Acknowledgement

You can set the Automatic Acknowledgment function to acknowledge DSC calls.
When you receive an Individual call, Position Request call, Polling Request call or Test call, the transceiver automatically sends each acknowledgement, if “Auto” is set.

When you set the “Individual ACK” item to “Auto (Unable),” and receive the Individual call, the transceiver automatically sends the acknowledgment, including “ACK (Unable)” (No Reason Given).

1. Push [MENU].
2. Select “Auto ACK.”
   (DSC Settings > **Auto ACK**)
3. Select the item.
   (DSC Settings > Auto ACK > **Individual ACK**)
   (DSC Settings > Auto ACK > **Position ACK**)
   (DSC Settings > Auto ACK > **Polling ACK**)
   (DSC Settings > Auto ACK > **Test ACK**)
4. Select the option, then push [ENT].

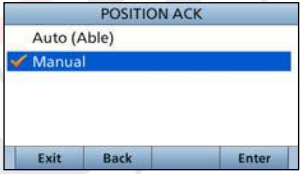
Individual ACK



Rotate CH/ENT + Push ENT

(Default: Auto (Able))

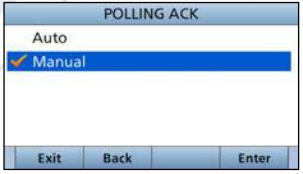
Position ACK



Rotate CH/ENT + Push ENT

(Default: Manual)

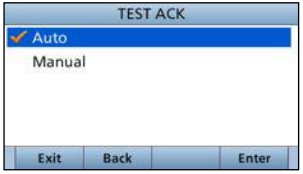
Polling ACK



Rotate CH/ENT + Push ENT

(Default: Manual)

Test ACK



Rotate CH/ENT + Push ENT

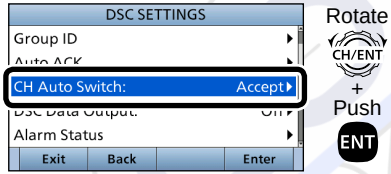
(Default: Auto)

5. Push [MENU] to return to the Main screen.

◇ Channel Auto Switch

By regulation, after receiving a DSC call, the transceiver changes the operating channel to the channel assigned by the received DSC call. However, when this setting is set to “OFF,” the function enables the transceiver to remain on the operating channel, even after receiving a Distress call.

1. Push [MENU].
2. Select “CH Auto Switch:,” then push [ENT].
   (DSC Settings > **CH Auto Switch:**)



3. Select the option, then push [ENT].

Accept after 10 sec.
After receiving a DSC call, the transceiver remains on the current operating channel for 10 seconds. After that, the transceiver automatically switches to the channel that assigned by the received DSC call.

Ignore after 10 sec.*1
After receiving a DSC call, the transceiver remains on the current operating channel for 10 seconds. After that, the transceiver automatically returns to the Main screen.

Hold after 10 sec.*2
After receiving a DSC call, the transceiver remains on the current operating channel for 10 seconds. After that, the transceiver automatically holds the received DSC call and returns to the Main screen.

Manual
The user need to select whether or not to accept the received DSC call.

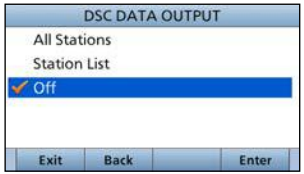
*1 Displayed only when “Single” is selected in the PROCEDURE menu. (p. 64)
*2 Displayed only when “Multiple” is selected in the PROCEDURE menu. (p. 64)

4. Push [Exit] [—] to return to the Main screen.

■ DSC Settings (Continued)

◇ DSC data output

When receiving a DSC call, this function makes the transceiver send the DSC data from its NMEA Output port to an external device.



All Stations: Outputs the call from any vessel from the NMEA Output port.
Station List: Outputs the call from any vessels listed on the Individual ID screen.
OFF: Does not output any call to an external device (Default).

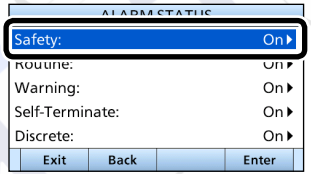
◇ Setting the Alarm Status

• Safety
• Routine

Select whether or not to sound an alarm when receiving a Safety or Routine DSC call.

1. Push [MENU].
2. Select the item, then push [ENT].
   (DSC Settings > Alarm Status > **Safety**)
   (DSC Settings > Alarm Status > **Routine**)

(Example: Safety)



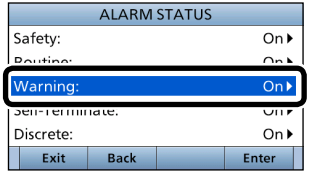
Rotate CH/ENT + Push ENT

3. Select the option, then push [ENT].
   • On: Alarm sounds. (Default)
   • Off: Alarm does not sound.
4. Push [MENU] to return to the Main screen.

• Warning

Select whether or not to sound an alarm:
• When no MMSI code is entered.
• When the position data has not been updated for 10 minutes.
• When the position data has not been manually updated for 4 hours.
• After the invalid GPS position data or manually entered position data has not been updated for 23.5 hours.

1. Push [MENU].
2. Select “Warning,” then push [ENT].
   (DSC Settings > Alarm Status > **Warning**)



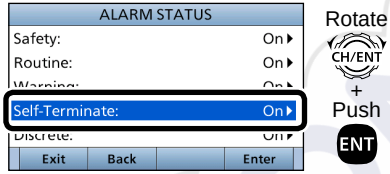
Rotate CH/ENT + Push ENT

3. Select the option, then push [ENT].
   • On: Alarm sounds. (Default)
   • Off: Alarm does not sound.
4. Push [MENU] to return to the Main screen.

• Self-Terminate

Select whether or not to sound an alarm when receiving the same Distress call.

1. Push [MENU].
2. Select “Self-Terminate,” then push [ENT].
   (DSC Settings > Alarm Status > **Self-Terminate**)

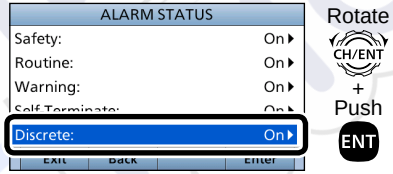


3. Select the option, then push [ENT].
   • On: Alarm sounds. (Default)
   • Off: Alarm does not sound.
4. Push [MENU] to return to the Main screen.

• Discrete

Select whether or not to sound an alarm when receiving a DSC call while in the Radio Telephone (RT) mode or DSC Task mode.

1. Push [MENU].
2. Select “Discrete,” then push [ENT].
   (DSC Settings > Alarm Status > **Discrete**)

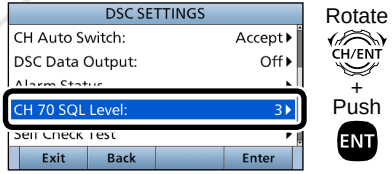


3. Select the option, then push [ENT].
   • On: Alarm sounds. (Default)
   • Off: Alarm does not sound.
4. Push [MENU] to return to the Main screen.

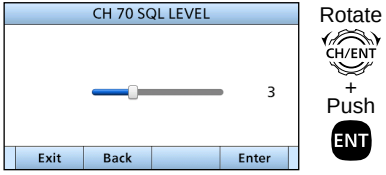
◇ Setting the Channel 70 Squelch level

Set the squelch level on Channel 70. The transceiver has 11 squelch levels between 1 (loose squelch), 10 (tight squelch) and ‘Open’ (squelch is completely open).

1. Push [MENU].
2. Select “CH 70 SQL Level,” then push [ENT].
3. (DSC Settings > **CH 70 SQL Level:**)



4. Adjust the squelch level until the noise just disappears.

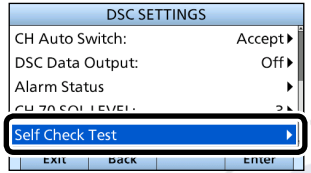


5. Push [MENU] to return to the Main screen.

◇ Self Check Test

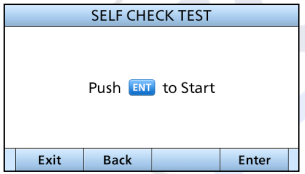
The Self Check test function sends transmit DSC signals to the receive AF circuit to compare and check the TX and RX signals at the AF level.

1. Push [MENU].
2. Select “Self Check test,” then push [ENT].
   (DSC Settings > **Self Check Test**)



Rotate CH/ENT
+
Push ENT

3. Push [ENT] to start the DSC loop test.



Push ENT

• If the transmit DSC and receive DSC signals match, “OK” is displayed.

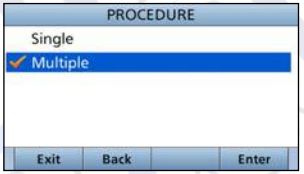
4. Push [MENU] to return to the Main screen.

◇ Selecting the DSC procedure

(For only the USA version.)

Select weather or not to enable the transceiver handling more than 2 tasks at same time.
See page 29 and page 30 for the Single task and Multiple task details.

1. Push [MENU].
2. Select “Procedure:,” then push [ENT].
   (DSC Settings > **Procedure:**)



3. Select the option, then push [ENT].
   • Single: The transceiver handles a single task (Default).
   • Multiple: The transceiver can handle up to 7 tasks at same time .
4. Push [MENU] to return to the Main screen.

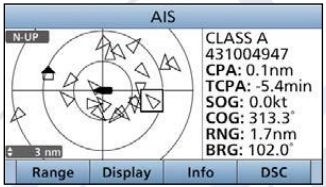
■ Making an Individual call to a particular AIS target

You can transmit an Individual DSC call to a selected AIS target, without entering the target's MMSI code. In this case, the call type is automatically set to Routine.

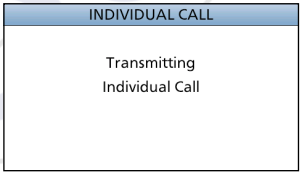
NOTE: To ensure correct operation of the DSC function, make sure you correctly set the CH70 SQL Level. (p. 63)

The transceiver with a built-in AIS receiver:
You can select an AIS target on the Target List screen or Danger list screen.

1. Display the AIS plotter screen (p. 74), or the Target List screen (p. 75).



2. Select a target, and then push [DSC] [—] to display the Voice channel selection screen.
3. Select a Voice channel, and then push [DSC] [—] to transmit an Individual call.
   - If Channel 70 is busy, the transceiver stands by until the channel becomes clear.
   - If the transceiver cannot make the call, the transponder will display "DSC Transmission FAILED."



4. The transceiver stands by on Channel 70 until an acknowledgement is received.

■ Making an Individual call using an AIS transponder (Continued)

5. When the acknowledgement is received, alarm sounds.
   - If the acknowledgement 'Able to comply' is received, push [ALARM OFF] [—] to stop the alarm, and then select the Intership channel specified in step 2.
     - A different Intership channel will be selected if the station you called cannot use the channel.
     - To reply, push [PTT] and speak at a normal voice level.
     - You can check the MMSI code or the name, if entered, of the AIS target on the display.
   - If the acknowledgement 'Unable to comply' is received, push [ALARM OFF] [—] to stop the alarm, then "INDIVIDUAL CALL FAILED" is displayed.

6. After the communication is finished, push [Standby] [—] to return to the normal operating mode.

The transceiver without built-in AIS receiver:
If you are using the transceiver without a built-in AIS receiver, select an AIS target using an optional MA-500TR class B AIS transponder.
See the instruction manual boxed with the transponder for details.

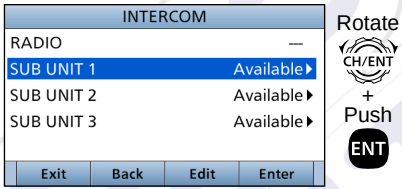
■ Using the Intercom

The optional Intercom function enables you to talk between the deck and the cabin. The optional RC-M600 COMMAND HEAD, HM-195 COMMANDMICIV™*, or HM-229 COMMANDMICV™ is required for Intercom operation.

ⓘ Connect the RC-M600 as described on page 96.
ⓘ Connect the HM-195* or HM-229 as described on page 100.
*Not usable for the IC-M605EURO.

• Transmitting is disabled while using the intercom.
• The received call audio is muted while using the intercom.

1. Push [MENU].
2. Select “Intercom,” then push [ENT].
3. Select the unit, then push [ENT].
   • Enters the Intercom mode.
4. Hold down [Call] [—] to sound the intercom beeps.
   • The transceiver and the command head or command microphone sound beeps while holding down [Call].
   • “Call” is displayed.



Rotate CH/ENT + Push ENT

5. After releasing [Call], hold down [PTT] and speak into the microphone at your normal voice level.
   • “Talk” is displayed.
   ⓘ To adjust the transceiver or command head’s intercom volume level, rotate [VOL/SQL].
   ⓘ To adjust the command microphone’s intercom volume level, rotate [VOL/SQL] (Dial) on the command microphone.
6. After releasing [PTT], you can hear the response through the speaker.

7. Push [EXIT] [—] to return to the Main screen.

NOTE: While in the Intercom mode, the transmit and receive functions are disabled. When the transceiver is transmitting, the Intercom function is disabled.

■ Using the RX Hailer

The RX Hailer function enables you to hear the received audio on the deck or bridge through a Hailer speaker.
Connect an external hailer speaker as described on page 94.

1. Push [◀] or [▶] until [RX Hailer] is displayed in the Software Key area.
2. Push [RX Hailer] [—] to enter the RX Hailer mode.
   • The "RX" icon is displayed.

ⓘ Push [VOL/SQL] to open the volume adjustment screen.

3. To exit the RX hailer mode, push [RX Hailer] [—].
   • The "RX" icon disappears.

■ Using the Hailer

You can talk without leaving the bridge by using the 2 way hailer function.
Connect an external hailer speaker as described on page 94.
• You cannot transmit while using the hailer.

1. Push [MENU].
2. Select "Hailer," then push [ENT].
   • Hailer screen is displayed.
3. Hold down [PTT] and speak at your normal voice level.
4. While holding down [PTT], the screen shown to the right is displayed.

ⓘ Push [VOL/SQL] to open the volume adjustment screen.

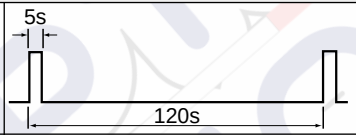
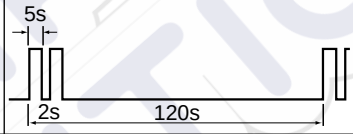
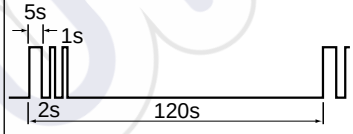
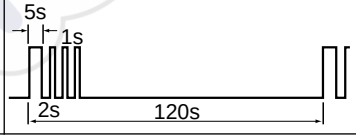
NOTE: While in the hailer mode, the transmit and receive functions are disabled. When the transceiver is transmitting, the hailer function is disabled.

■ Using the Horn

◇ Using the Automatic Foghorn

The Automatic Foghorn function sounds a horn repeatedly until the function is turned OFF.

The foghorn outputs from the hailer speaker. To use this function, the hailer speaker must be connected to the transceiver. See page 94 for connection details.

TYPE	PATTERN		USAGE
UNDERWAY	One 5-second blasts every 120 seconds.		Motor vessel underway and making way.
STOP	Two 5-second blasts (separated by 2 seconds) every 120 seconds.		Motor vessel underway but stopped (not making way).
SAIL	One 5-second blast followed by two 1-second blasts (each separated by 2 seconds) every 120 seconds.		Sailing vessel underway, fishing vessel (underway or anchored), vessel not under command, a vessel restricted in her ability to maneuver (underway or at anchor), or a vessel towing or pushing another ahead.
TOW	One 5-second blast followed by three 1-second blasts (each separated by 2-seconds) every 120 seconds.		Vessel under tow (manned).

■ Using the horn

◇ Using the Automatic foghorn function (Continued)

1. Push [MENU].
2. Select “Auto Foghorn:,” and then push [ENT].
   (Horn > **Auto Foghorn:**)
3. Select the foghorn pattern, then push [ENT].

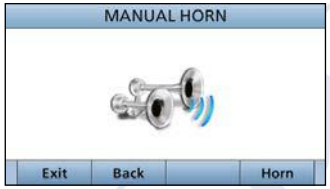
4. Rotate [CH/ENT] to adjust the foghorn level.

5. Push [Exit] to return to the Main screen.
   • The “ ”icon is displayed.

ⓘ To turn OFF the Auto Foghorn, select “Off” in the “Auto Foghorn:” menu.

◇ Manual Horn function

1. Push [MENU].
2. Select “Manual Horn” then push [ENT].
   (Horn > **Manual Horn:**)
3. Hold down [Horn] to sound a horn.
   • While holding down [Horn], the horn sounds, and the screen shown to the right is displayed.
   • To adjust the horn volume level, rotate dial.



4. Push [EXIT] to return to the Main screen.

NOTE: While in the Horn mode, the transmit and receive functions are disabled. When the transceiver is transmitting, the Horn function is disabled.

■ Using the Voice Scrambler

The Voice Scrambler provides private communications. In order to receive or send scrambled transmissions, you must activate the scrambler function. You also need to set the scrambler code in the Menu screen. (p. 90)

The scrambler function automatically turns OFF when Channel 16 or 70 is selected.

1. Select an operating channel other than Channel 16, 70 or the weather channels.
2. Push [◀] or [▶] until [SCBL] is displayed in the Software Key area.
3. Push [SCBL] [—] to turn the Voice Scrambler ON or OFF.
   • The “SBL” icon is displayed when the voice scrambler is ON.

◇ Setting scrambler codes

Set the code to between 1 and 32 in the Menu screen. In order to understand each other, all transceivers in your group must use the same scramble code.

■ Using the Voice Recorder

The transceiver has an automatic recording function that can record the last 120 seconds of the receiving audio. You can playback the audio that you could not hear clearly.

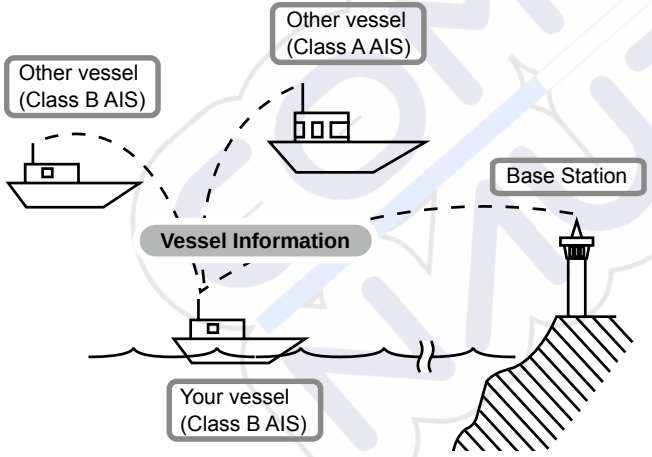
● Starts recording automatically when the signal is received.
• The "●" icon is displayed while recording.
• Stops recording 3 seconds after the signal disappears.
• Stops recording when the channel is changed.
• The recorded voice data is erased when the transceiver is turned OFF.

◇ Playback the recorded voice

● Push [RX Play] to playback the recorded voice.
• The "▶" icon is displayed while playing.
● Push [Stop] to stop playing back the recorded voice.

■ About AIS

The Automatic Identification System (AIS) is primarily used for collision-risk management and navigation safety. It automatically transmits and receives vessel information, such as the vessel name, MMSI code, vessel type, position data, speed, course, destination and more. Information is exchanged among the vessels and/or base stations on the VHF maritime mobile band. The information helps to identify other nearby vessels or stations by displaying the received data on a plotter or a radar screen.



■ AIS Classes

There are 7 types of AIS stations, vessels, base stations, Search and Rescue (SAR), Aids to Navigation (AtoN), Search and Rescue Transmitter (AIS-SART), Man OverBoard (MOB), and Emergency Position Indicating Radio Beacon-AIS (EPIRB-AIS).

There are 2 classes of AIS units, which are installed on vessels, Class A and Class B.

Under the Safety Of Life At Sea (SOLAS) convention, all SOLAS vessels, as described below, are required to install a Class A AIS transponder:

- Upwards of 300 gross tonnage engaged on international voyages.
- Passenger vessels, irrespective of size, engaged on international voyages.
- Upwards of 500 gross tonnage not engaged on international voyages.

A Class B AIS transponder is designed to be interoperability with Class A units, but not to impact the Class A network. Many commercial vessels, and some leisure craft, not classified as requiring a Class A unit, choose to install a Class B unit to avoid accidents at sea.

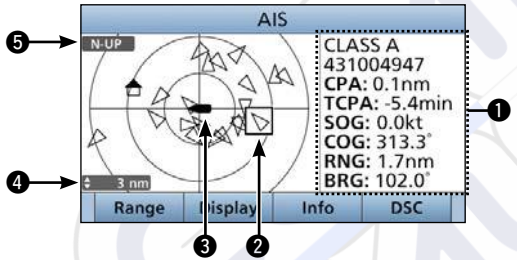
■ Function display

There are 3 types of function displays, plotter, target list and danger list. Select the display type using the [Display] key.

1. Push [MENU].
2. Select “AIS” then push [ENT].
   • The Plotter screen is displayed.

◇ Plotter screen

If the GPS is connected and it receives signals from a satellite, the plotter screen shows the display range and the icons of the AIS targets.



❶ INFORMATION
Displays the selected target’s information.

❷ TARGET BOX
Displays the selected AIS target.
ⓘ When a target box is displayed, push [ENT] to display the detail screen of the selected AIS target.

❸ YOUR VESSEL ICON
Displayed in the center of the screen.
ⓘ When “N-UP” is displayed, the vessel icon automatically points in the direction you are heading, in 45 degrees steps.
ⓘ When “COG-UP” is displayed, the vessel icon constantly points to the top of the plotter screen.
ⓘ When your vessel moves less than 2 knots, the “ ● ” icon is displayed.

❹ DISPLAY RANGE
Displays the selected display range.
Push [Range] to select display range.
ⓘ 0.125, 0.25, 0.5, 0.75, 1.5, 3, 6, 12, 24 nm (nautical miles) are selectable.

❺ DISPLAY TYPE
Displays the selected display type. You can select the display type from the menu screen (p. 80).
ⓘ When “N-UP” is displayed, the top of the plotter screen represents North.
ⓘ When “COG-UP” is displayed, the top of the plotter screen represents the direction your course is heading.

• Description of the icons

Icon	Description
△	AIS target: Vessel The tip of the target triangle automatically points in the direction it's heading. The icon blinks when the AIS target is closer than your CPA and TCPA settings. (Dangerous target)
⧋	AIS target: Lost target* The target triangle is marked with a diagonal line.
⌂	AIS target: Base Station
✈	AIS target: Search and Rescue (SAR)
◈	AIS target: Aids to Navigation (AtoN)
⊗	AIS target: AIS-SART, MOB and EPIRB-AIS

*A vessel is regarded as a "Lost target" after a specified period of time has passed since the vessel last transmitted data.
The "Lost target" icon disappears from the plotter screen 6 minutes and 40 seconds after the vessel was regarded as a "Lost target."
Ask your dealer for details.

◇ Target list screen

In the plotter screen, push [Display] [–] to enter the target list screen, which shows all AIS targets being detected by the transponder.
The AIS target data is sorted by the distance from your vessel, and the closest target is located at the top of the list.

ⓘ Rotate [CH/ENT] to select an AIS target.
ⓘ Push [INFO] to display the detail screen of the selected AIS target. (p. 76)
ⓘ Push [DSC] to transmit DSC call to selected AIS target.

❶ THE NUMBER OF TARGETS
Displays the number of AIS targets which are being detected by the transceiver.

❷ TARGET INFORMATION
Displays the following AIS target information:
• MMSI code or name.
• Range (RNG) from your vessel to the target (unit: nautical mile).
• Bearing (BRG) from your vessel to the target (unit: degree).

◇ Danger list screen

In the target list display, push [Display] [—] to switch to the danger list screen, which helps you to find any dangerous target whose CPA is within 6 nm (nautical miles) and TCPA is within 60 minutes of your vessel.

- Rotate [CH/ENT] to select an AIS target.
- Push [INFO] to display the detail screen of the selected AIS target.
- Push [DSC] to transmit DSC call to selected AIS target.

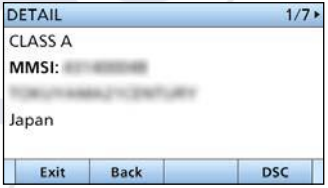
❶ THE NUMBER OF DANGEROUS TARGETS
Displays the number of AIS targets which are being detected by the transceiver.

❷ DANGER TARGET INFORMATION
Displays the following dangerous target information:
- MMSI code or name.
- CPA: Closest Point of Approach (unit: nautical mile).
- TCPA: Time to CPA (unit: minute).

■ About the detail screen

The detail screen displays the information about the selected AIS target. The contents differ, depending on the AIS class.

1. Select an AIS target in the target list screen, danger list screen, or plotter screen then push [INFO] or [ENT].
   - The detail screen is displayed.
   - Rotate [CH/ENT] to scroll the page.



◇ Content lists of Class A vessels' DETAIL screens

- AIS Class
- MMSI Code
- Ship Name
- Country Name
- Call Sign
- IMO Number
- CPA (Closest Point of Approach)
- TCPA (Time to CPA)
- Position (Latitude, Longitude)
- Speed Over Ground
- Course Over Ground
- Heading
- Position Accuracy (H: High, L: Low)
- Range
- Bearing
- Rate Of Turn
- Bow to Antenna length
- Stern to Antenna length
- Port side to Antenna length
- Starboard side to Antenna length
- Length
- Beam
- Draught
- Type of Ship
- Navigation Status
- Destination
- Date
- Time

◇ Content lists of Class B vessels' DETAIL screens

- AIS Class
- MMSI Code
- Ship Name
- Country Name
- Call Sign
- Vendor ID
- CPA (Closest Point of Approach)
- TCPA (Time to CPA)
- Position (Latitude, Longitude)
- Speed Over Ground
- Course Over Ground
- Heading
- Position Accuracy (H: High, L: Low)
- Range
- Bearing
- Bow to Antenna length
- Stern to Antenna length
- Port side to Antenna length
- Starboard side to Antenna length
- Length
- Beam
- Type of Ship

◇ Content lists of Base Station targets' DETAIL screens

- AIS Class
- MMSI Code
- Position (Latitude, Longitude)
- Position Accuracy (H: High, L: Low)
- Range
- Bearing

◇ Content lists of SAR targets' DETAIL screens

- AIS Class
- MMSI Code
- Position (Latitude, Longitude)
- Speed Over Ground
- Course Over Ground
- Position Accuracy (H: High, L: Low)
- Range
- Bearing
- Altitude

◇ Content lists of AtoN targets' DETAIL screens

- AIS Class (AtoN existence (REAL, VIRTUAL))
- MMSI Code
- Target Name
- CPA (Closest Point of Approach)
- TCPA (Time to CPA)
- Position (Latitude, Longitude)
- Position Accuracy (H: High, L: Low)
- Range
- Bearing
- Bow to Antenna length
- Stern to Antenna length
- Port side to Antenna length
- Starboard side to Antenna length
- Length
- Beam
- Position Indicator (ON POS : ON Position, OFF POS : OFF Position)
- Type of AtoN

◇ Content lists of AIS-SART targets' DETAIL screens

- Type of AIS Target
- MMSI Code
- Call Sign
- IMO Number
- Closest Point of Approach
- TCPA (Time to CPA)
- Position (Latitude, Longitude)
- Speed Over Ground
- Course Over Ground
- Heading
- Position Accuracy (H: High, L: Low)
- Range
- Bearing
- Rate Of Turn
- Bow to Antenna length
- Stern to Antenna length
- Port side to Antenna length
- Starboard side to Antenna length
- Length
- Beam
- Draught
- Type of Ship
- Navigation Status
- Destination
- Date
- Time

◇ Content lists of MOB targets' DETAIL screens

- Type of AIS Target
- MMSI Code
- Call Sign
- IMO Number
- Closest Point of Approach
- TCPA (Time to CPA)
- Position (Latitude, Longitude)
- Speed Over Ground
- Course Over Ground
- Heading
- Position Accuracy (H: High, L: Low)
- Range
- Bearing
- Rate Of Turn
- Bow to Antenna length
- Stern to Antenna length
- Port side to Antenna length
- Starboard side to Antenna length
- Length
- Beam
- Draught
- Type of Ship
- Navigation Status
- Destination
- Date
- Time

◇ Content lists of EPIRB-AIS targets' DETAIL screens

- Type of AIS Target
- MMSI Code
- Call Sign
- IMO Number
- Closest Point of Approach
- TCPA (Time to CPA)
- Position (Latitude, Longitude)
- Speed Over Ground
- Course Over Ground
- Heading
- Position Accuracy (H: High, L: Low)
- Range
- Bearing
- Rate Of Turn
- Bow to Antenna length
- Stern to Antenna length
- Port side to Antenna length
- Starboard side to Antenna length
- Length
- Beam
- Draught
- Type of Ship
- Navigation Status
- Destination
- Date
- Time

◇ AIS combo screen

You can display the AIS plotter during basic operation.

- Push [AIS] to display the AIS plotter on the left side of the screen.
- Rotate [CH/ENT] to select an operating channel.
- Push [◀]/[▶] to select a vessel.
- Push [Range] [—] to select display range.
- Push [CLR] to exit the AIS combo screen.

■ AIS Settings

AIS settings can be customized from “AIS Settings” on the menu screen.

1. Push [MENU].
2. Select “AIS SET,” then push [ENT].

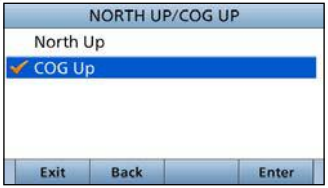
◇ North up/COG UP:

Select the display type for the AIS plotter.

ⓘ When “N-UP” is displayed, the top of the plotter display represents North.

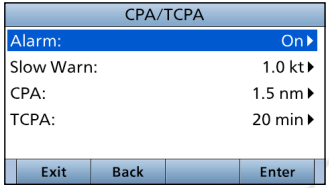
ⓘ When “COG-UP” is displayed, the top of the plotter display represents the direction your course is heading.

- Push [EXIT] to return to the Main screen.
- Push [BACK] to return to the previous screen.



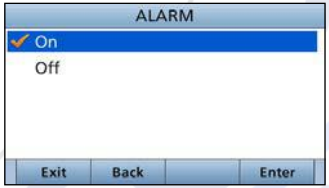
◇ CPA/TCPA

In this menu, you can edit alarm settings for the AIS receiver.



• Alarm

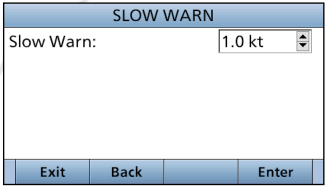
You can turn the collision alarm function ON or OFF.



• Slow Warn

The GPS receiver calculated COG data of a vessel that is at anchor or drifting is unreliable, and therefore the CPA and TCPA data may not be calculated correctly. If a vessel is anchored in your alarm zone, the unreliable data can cause the collision alarm to sound many times, even if there is no real danger. To prevent this, when the anchored vessel's SOG is less than this set value, the Slow Warn function assumes that vessel's COG is fixed towards your vessel and an alarm will sound.

- Rotate [CH/ENT] or push [▲]/[▼] to set the value between 0.1 and 4.9 kt (in 0.1 kt steps), or select OFF. (default: 1.0 kt)



NOTE: If other vessels at anchor or drifting come into your alarm zone, the Slow Warn alarm will sound again. Only if the previous vessel disappears from the Danger List (p. 76), and then re-enters the list, can a new Slow Warn or regular alarm sound, depending on the vessels SOG, or CPA and TCPA. The Slow Warn function operates in the same way if your vessel is at anchor and other vessels enter your alarm zone area.

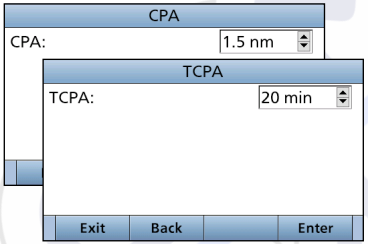
◇ CPA/TCPA (Continued)

• CPA, TCPA

Enter Closest Point of Approach (CPA) and Time to CPA (TCPA) values.

These settings help you find a dangerous target to avoid a collision. The icon blinks on the plotter display and/or the alarm buzzer sounds, when the AIS target is closer than your CPA and TCPA settings.

● Rotate [CH/ENT] or push [▲]/[▼] to set the value.
- CPA: Set between 0.1 and 6.0 nm (in 0.1 nm steps) (default: 1.5 nm)
- TCPA: Set between 1 and 60 minutes (in 1 minute steps) (default: 20 min)



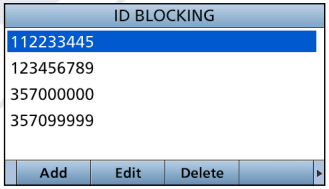
◇ ID BLOCKING

The transceiver blocks AIS transponders that are entered into the ID blocking list. Enter your vessel's transponder ID or other vessel's transponder IDs if necessary to prevent the transceiver from detecting them as dangerous targets.

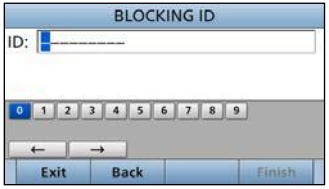
You can enter maximum of 10 transponder IDs.

• Entering an ID

1. Push [MENU].
2. Select "ID Blocking," then push [ENT].
   (AIS Settings > **ID Blocking**)
   - The blocked AIS transponder's ID is displayed.
   - "No ID" is displayed if there are no blocked AIS transponders.



3. Push [Add] to start the ID entry.



Rotate CH/ENT + Push ENT

4. Push [Finish] [—] to enter the ID.

• Editing an ID

1. Push [MENU].
2. Select “ID Blocking,” then push [ENT].
   (AIS Settings > **ID Blocking**)
3. Select the ID to edit, then push [Edit] [—].
4. After editing, push [Finish] [—] to set it.

• Deleting an ID

1. Push [MENU].
2. Select “ID Blocking,” then push [ENT].
   (AIS Settings > **ID Blocking**)
3. Select the ID to delete, then push [Delete] [—].

■ Menu items

The Menu screen is constructed in a tree structure. (p. 11)

The following items are described in each section.
Refer to the specified pages for details.

◇ Compose Distress (p. 31)

◇ Compose Non-Distress
- **Individual call (p. 37)**
- **All Ships (p. 40)**
- **Group (p. 41)**
- **Test (p. 44)**

◇ DSC Log (pp. 58, 59)

◇ DSC Settings (p. 60)

◇ AIS Settings (p. 80)

◇ GPS Information (p. 85)

◇ Configuration

item	Ref.	item	Ref.
Key Beep	p. 85	Speaker	p. 87
Key Assignment	p. 85	Noise Cancel	p. 87
UTC Offset	p. 86	Power SW from Sub Unit	p. 88
Inactivity Timer	p. 86		

◇ Radio Settings

item	Ref.	item	Ref.
Scan Type*1	p. 88	Voice Scrambler*3	p. 90
Scan Timer*1	p. 88	Voice Record	p. 90
Dual/Tri-Watch*1	p. 89	FAV Settings	p. 90
Channel Group	p. 89	FAV on MIC	p. 90
Call Channel	p. 89	Channel Display	p. 90
WX Alert*2	p. 89		

*1Except for the Dutch version.
*2For only the USA version.
*3Displayed only when the voice scrambler unit is installed.

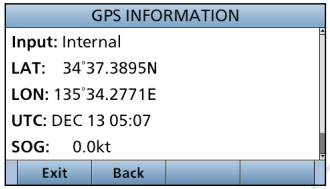
◇ NMEA Settings

item	Ref.	item	Ref.
NMEA 0183	p. 91	NMEA 2000	p. 91

◇ Radio Information (p. 93)

■ GPS Information

Displays the data received by the connected GPS receiver.



■ Configuration

◇ Key Beep

(Configuration > **Key Beep:**)

Turn the Key Beep function ON or OFF.

- On: Sounds a beep when pushing a key. (Default)
- Off: Does not sound a beep when pushing a key, for silent operation.

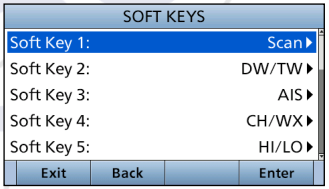
◇ Key Assignment

(Configuration > **Key Assignment**)

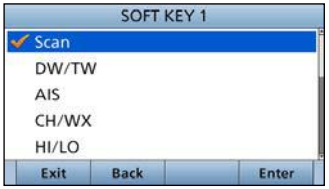
Assign functions to Software keys. The assigned function can be used when its key icon is displayed.

See page 4 for details of the assignable key functions.

1. Select the Software key, then push [ENT].



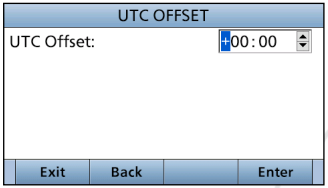
2. Select the function to assign, then push [ENT].



◇ UTC Offset

(Configuration > **UTC Offset:**)

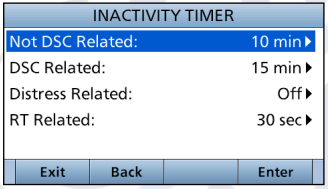
Set the offset time between Universal Time Coordinated (UTC) and your local time to between –14:00 and +14:00 (in 1 minute steps). (Default: 00:00)



◇ Inactivity Timer

(Configuration > **Inactivity Timer:**)

The count down alarm sounds 10 seconds before the Inactivity Timer activates.

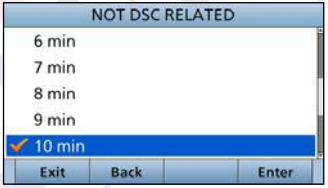


• Not DSC Related

(Configuration > Inactivity Timer > **Not DSC Related:**)

The transceiver automatically returns to the Main screen if no key is pushed for this set period of time. (Default: 10 min)

This setting is for when the LCD displays a screen that is not related to DSC screen other than the Main screen.



• DSC Related

(Configuration > Inactivity Timer > **DSC Related:**)

The transceiver automatically returns to the Main screen if no key is pushed for this set period of time. (Default: 15 min)

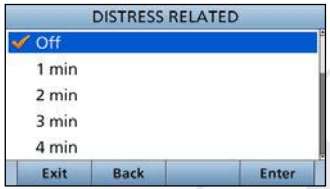
This setting is for when the LCD displays a screen that is related to DSC.

• Distress Related

(Configuration > Inactivity Timer > **Distress Related:**)

The transceiver automatically returns to the Main screen if no key is pushed for this set period of time. (Default: Off)

This setting is for when the LCD displays a screen that is related to a Distress call.

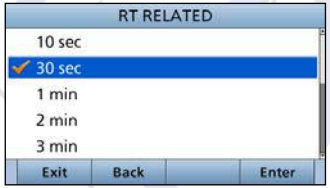


• RT Related

(Configuration > Inactivity Timer > **RT Related:**)

The transceiver automatically returns to the standby mode if you push no key for this set period of time. (Default: 30 sec)

This setting is for when the transceiver is in the Radio Telephone mode.



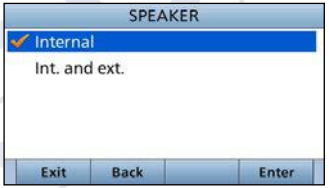
◇ Speaker

(Configuration > **Speaker:**)

Select the speaker to use. (Default: Internal)

Internal: The audio is heard from the internal speaker.

Int. and ext.: The audio is heard from both the internal speaker and the external speaker.
Confirm this item is selected, when you use the external speaker.



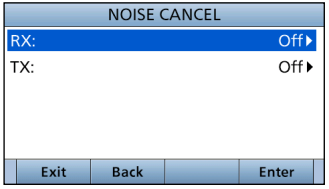
◇ Noise Cancel

(Configuration > **Noise Cancel**)

Set the Noise Cancel function for both receive and transmit.

RX: The function reduces noise component in your receive audio for your smooth reception.

TX: It is effective to turn ON the TX noise cancel function when you operate under a noisy surround area.



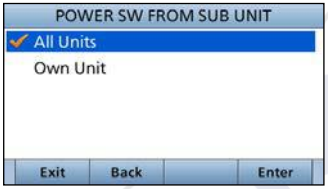
◇ Power Switch from sub unit

(Configuration > **Power SW from Sub Unit:**)

Select weather or not to turn OFF the transceiver at same time that you turn OFF the command microphone or command head.

(Default: All Units)

ⓘ The optional HM-195 or HM-229 command microphone or RC-M600 COMMAND HEAD is required to use this function.



All Units: When you turn OFF the command microphone or command head, the transceiver is turned OFF at same time.

Own Unit: The transceiver is not turned OFF even if you turn OFF the command microphone or command head.

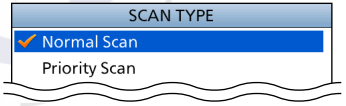
■ Radio Settings

◇ Scan Type (Except for the Dutch version)

(Radio Settings > **Scan Type**)

Select the Scan type to locate signals.

- Normal Scan: Sequentially searches all Favorite channels. (Default for the USA version.)
- Priority Scan: Sequentially searches all Favorite channels, while also monitoring Channel 16. (Default for the transceiver other than USA version.)

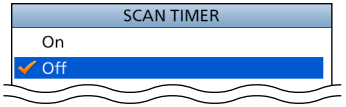


◇ Scan Timer (Except for the Dutch version)

(Radio Settings > **Scan Timer**)

Turn the Scan Resume timer ON or OFF.

- On: When a signal is detected on a channel, the scan pauses for 5 seconds, and then resumes. If the signal disappears in less than 5 seconds, the scan immediately resumes.
- Off: When a signal is detected on a channel, the scan pauses until the signal disappears, and then resumes. (Default)



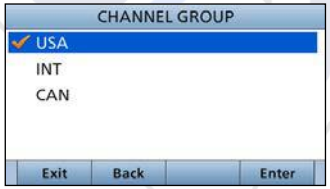
◇ Dual/Tri-Watch

(Except for the Dutch version)
(Radio Settings > **Dual/Tri-Watch**)
Select the watch type. (p. 24)

- Dualwatch: The transceiver monitors Channel 16, while listening or talking on another channel. (Default)
- Tri-watch: The transceiver monitors Channel 16 and the Call channel, while listening or talking on another channel.

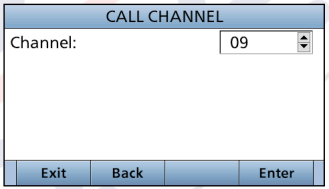
◇ Channel Group

(Radio Settings > **Channel Group:**)
Select a channel group suitable for your operating area.
Selectable channel group and the default setting may differ depending on the transceiver version.



◇ Call Channel

(Radio Settings > **Call Channel**)
You can set the Call channel with your most often-used channel for quick recall. (p. 14) (Default: Channel 16)

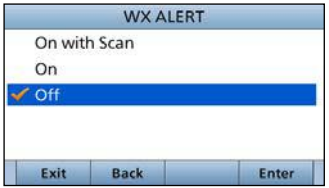


◇ Weather Alert

(For only the USA version.)
(Radio Settings > **WX Alert:**)
A NOAA broadcast station transmits a weather alert tone before important weather information.
After the transceiver detects the alert, “WX” blinks until the transceiver is operated.

ⓘ “WX ⛈” displayed instead of “WX” when the function is set to “On.”

(Default: “Off”)



◇ Voice Scrambler

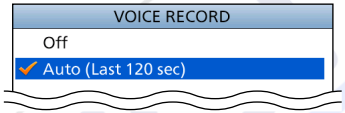
(Displayed only when a Voice scrambler unit is installed.)
(Radio Settings > **Voice Scrambler:**)

Set the Voice Scrambler code to between 1 and 32.
In order to understand each other, all transceivers in your group must use the same scramble code, as well as the same scrambler unit.

◇ Voice Record

(Radio Settings > **Voice Record:**)

You can disable the Voice recorder (p. 72) by selecting “Off.”
(Default: Auto (Last 120 sec))

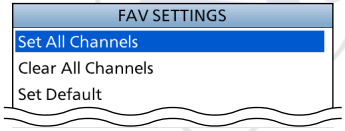


◇ FAV Settings

(Radio Settings > **FAV Settings**)

Set the Favorite channel settings.

- Set All Channels: Sets all channels as Favorite channels.
- Clear All Channels: Clears all Favorite channels.
- Set Default: Returns to the default setting.



◇ FAV on MIC

(Radio Settings > **FAV on MIC**)

Turn the FAV on MIC function ON or OFF.

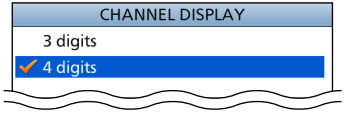
- On: Pushing [▲] or [▼] on the supplied microphone scrolls up and down through only the Favorite channels. (Default)
- Off: Pushing [▲] or [▼] on the supplied microphone scrolls up and down through all channels.

◇ Channel Display

You can select the number of digits to display the channel number. (Default: 4 digits)

- 3 digits: The channel number is displayed in 3 digits, such as “01A.”
- 4 digits: The channel number is displayed in 4 digits, such as “1001.”

ⓘ This setting may not be usable, depending on the presetting.



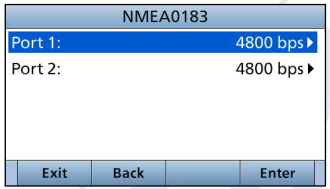
■ NMEA Settings

◇ NMEA 0183

(NMEA Settings > **NMEA 0183**)

Select the data transfer speed for each port to receive data from external devices.

- 4800 bps: Select to receive position data from an external GPS receiver.
- 38400 bps: Select to receive AIS data from an external AIS transponder.



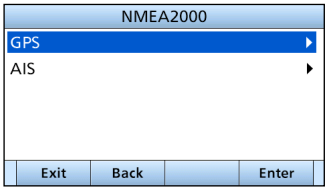
◇ NMEA 2000

(NMEA Settings > **NMEA 2000**)

NMEA 2000 is a communication standard used to connect various marine devices and display units in the vessel. The transceiver can easily connect to a NMEA 2000 network with its plug-and-play functionality, and display the information provided from the devices on the network. Select the sensors in NMEA 2000 network which sends data to the transceiver.

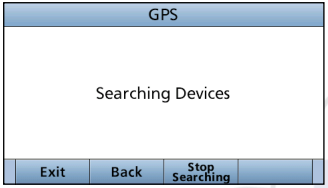
1. Push [MENU].
2. Select “NMEA 2000,” then push [ENT].
   (NMEA Settings > **NMEA 2000**)

3. Select the type of data from the menu screen and push [ENT].

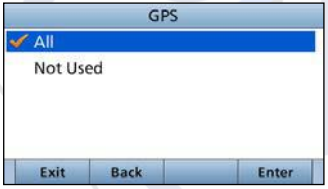


■ NMEA Settings
◇ NMEA 2000 (Continued)

4. The transceiver starts searching the devices connected to NMEA 2000 network.
   ⓘ Push [Stop Searching] to stop searching devices and display the device list.



5. The list of connected device is displayed.
6. Select the device to send the data to the transceiver, and push [ENT].
   ⓘ Push [INFO] to display the detail of device.
   ⓘ If the transceiver is connected to both NMEA 0183 and NMEA 2000 devices, the NMEA 2000 device has priority. Select “Not Used” if you want to use NMEA 0183 devices.



7. Push [EXIT] to return to the Main screen.

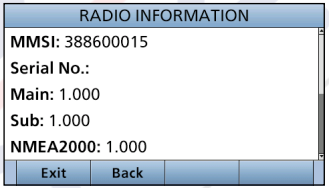
◇ Compatible PGN list

Receive	
060160	ISO Transport Protocol, Data Transfer
060416	ISO Transport Protocol, Connection Management
065240	ISO Commanded Address
059392	ISO Acknowledgement
059904	ISO Request
060928	ISO Address Claim
126208	NMEA - Request/Command Group Function
126996	Product Information
129026	COG (Course Over Ground) and SOG (Speed Over Ground) - Rapid Update
129029	GNSS (Global Navigation Satellite System) Position Data
129038	AIS Class A Position Report
129039	AIS Class B Position Report
129040	AIS Class B Extended Position Report
129041	AIS Aids to Navigation (AtoN) Report
129793	AIS UTC and Date Report (Base Station)
129794	AIS Class A Static and Voyage Related Data
129798	AIS SAR Aircraft Position Report
129809	AIS Class B “CS” Static Data Report, Part A
129810	AIS Class B “CS” Static Data Report, Part B

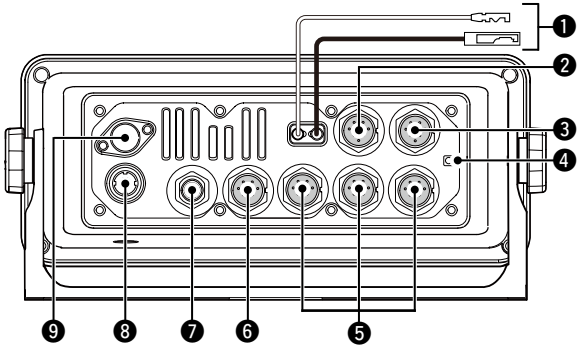
Transmit	
060416	ISO Transport Protocol, Connection Management
059392	ISO Acknowledgement
059904	ISO Request
060928	ISO Address Claim
126208	NMEA - Acknowledge Group Function
126993	Heartbeat
126998	Configuration Information
129539	GNSS DOPs
129540	GNSS Sats in View
126464	PGN List
126996	Product Information
129026	COG (course over ground) and SOG (speed over ground) - Rapid Update
129029	GNSS (Global Navigation Satellite System) Position Data
129799	Radio Frequency/Mode/Power
129808	DSC Call Information
129038	AIS Class A Position Report
129039	AIS Class B Position Report
129040	AIS Class B Extended Position Report
129041	AIS Aids to Navigation (AtoN) Report
129793	AIS UTC and Date Report (Base Station)
129794	AIS Class A Static and Voyage Related Data
129798	AIS SAR Aircraft Position Report
129809	AIS Class B “CS” Static Data Report, Part A
129810	AIS Class B “CS” Static Data Report, Part B

■ Radio Information

Displays your transceiver’ s information as shown below.

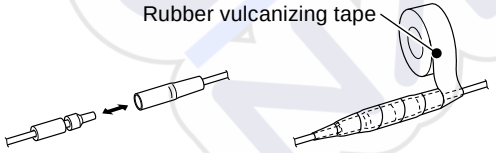


■ Connections



❶ DC POWER CONNECTOR
Connects to a 13.8 V DC power source. (+: Red, –: Black)

CAUTION: After connecting the DC power cable, NMEA leads, external speaker leads and Hailer leads, cover the connector and leads with an adhesive tape, as shown below, to prevent water seeping into the connection.



❷ MICROPHONE CONNECTOR
Connects the supplied or optional HM-205 microphone.*
*Not usable when the microphone is connected to the connector on the front panel.

❸ EXTERNAL SPEAKER CONNECTOR
Connects the optional SP-37 HORN SPEAKER.

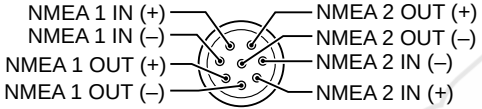
Transceiver's rear panel view

❹ GROUND TERMINAL
Connects to a vessel ground to prevent electrical shocks and interference from other equipment occurring. Use a self tapping screw (3 × 6 mm: not supplied).

❺ COMMAND MICROPHONE/ COMMAND HEAD CONNECTOR
Connects the optional command microphone* or command head.
*OPC-2384 CONVERSION CABLE is required.

❻ NMEA 0183 CONNECTORS
- Connects to NMEA 0183 Out lines of a PC or NMEA 0183 sentence format DSC or DSE compatible navigation equipment, to receive position data from other ships.

● Connects to NMEA 0183 In lines of a GPS receiver for position data.
  • A GPS receiver compatible with NMEA 0183 format RMC, GGA, GNS, or GLL and VTG sentences is required. Ask your dealer about suitable GPS receivers.



Transceiver's rear panel view

❼ NMEA 2000 CONNECTOR
Connects to the NMEA 2000 network.

❽ GPS ANTENNA CONNECTOR
Connects the supplied GPS antenna.

NOTE: Be sure the GPS antenna is positioned where the GPS antenna has a clear view to receive signals from satellites.

❾ ANTENNA CONNECTOR
Connects to a marine VHF antenna with a PL-259 connector.

CAUTION: DO NOT transmit without an antenna.

◇ NMEA 0183 In/Out lines specifications

PIN	SPECIFICATIONS
NMEA 0183 OUT (+)	Output level: 5 V/40 mA maximum (RS-422 balanced type)
NMEA 0183 OUT (–)	
NMEA 0183 IN (+)	Input level: Less than 2 mA (at 2 V applied)
NMEA 0183 IN (–)	

◇ Connecting the MA-500TR

For the transceiver without a built-in AIS receiver, connect the transceiver to the high density D-Sub 15-pin connector of the MA-500TR using the OPC-2014* cable.
* The OPC-2014 is supplied with the MA-500TR

- **NMEA 1 OUT (+) or NMEA 2 OUT(+):**
  Connects to lead 3 of the OPC-2014.
- **NMEA 1 OUT (–) or NMEA 2 OUT(–):**
  Connects to lead 2 of the OPC-2014.
- **NMEA 1 IN (+) or NMEA 2 IN (+):**
  Connects to lead 5 of the OPC-2014.
- **NMEA 1 IN (–) or NMEA 2 IN (–):**
  Connects to lead 4 of the OPC-2014.

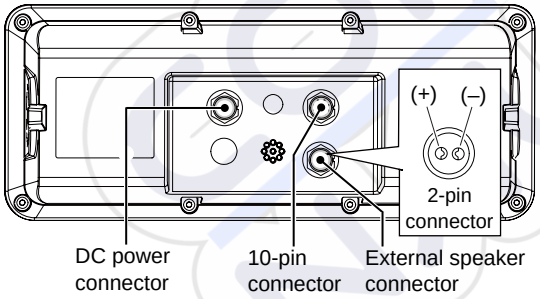
■ Connections (Continued)

◇ Connecting the RC-M600

The RC-M600 COMMAND HEAD has the same front panel as the transceiver. Connect the RC-M600 using the OPC-2383 CONTROL CABLE. You can operate the transceiver from the distance.

1. Connect the OPC-2383's 12-pin connector to the transceiver's command microphone/command head connector.
2. Connect the other side of OPC-2383 to the RC-M600's 10-pin connector.
3. Connect to a 13.8 V DC power source using the DC power cable supplied with the command head.
4. Connect the external speaker through the supplied 2-pin connector.

RC-M600's rear panel



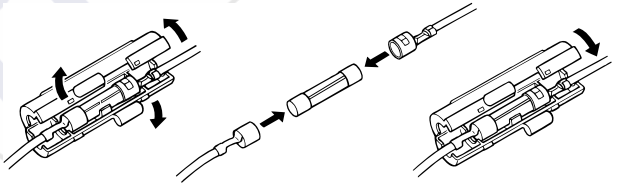
■ Antenna

A key element in the performance of any communication system is the antenna. Ask your dealer about antennas and the best place to mount them.

■ Fuse replacement

One fuse is installed in the supplied DC power cable. If the fuse blows, track down the source of the problem, repair it, and replace the damaged fuse with a new one of the proper rating.

Fuse rating: 10 A



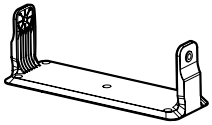
■ Cleaning

If the transceiver becomes dusty or dirty, wipe it clean with a soft, dry cloth.

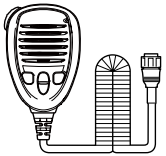
DO NOT use harsh solvents such as Benzine or alcohol, as they will damage transceiver's surfaces.

■ Supplied accessories

Mounting bracket



Microphone



Microphone hanger and screws (3×16 mm)

GPS antenna

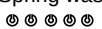
For the mounting bracket

Knob bolts

Flat washers (M5)

Screws (M5×20 mm)

Spring washers (M5)



Screws (5×20 mm)

Nuts (M5)

Sponges

Accessory connectors

6-pin 8-pin

DC power cable (OPC-1174A)*1

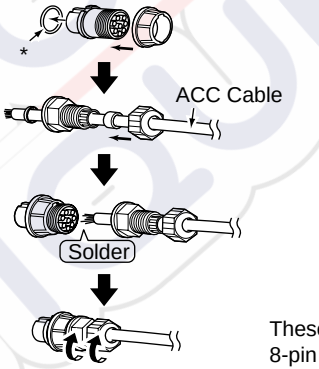
Warning sticker*2

Conversion cable (OPC-2384)*3

*1 Used for the transceiver's operation check. (12 V DC only)
*2 For only the USA version.
*3 May not be supplied, depending on the transceiver version.

◇ Accessory connectors set up

The accessory connectors are used on the accessory cables.



These illustrations are for the 8-pin connector.

* Be sure to set this ring to keep the waterproof capability.

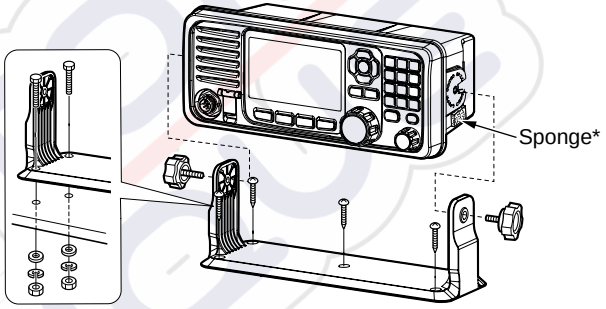
■ Mounting the transceiver

The universal mounting bracket supplied with your transceiver enables overhead or flat mounting.

- Mount the transceiver securely with the 5 supplied (M5 × 20) screws to a surface that is more than 10 mm thick and can support more than 5 kg.
- Mount the transceiver so its face is at 90° to your line of sight when operating.

CAUTION: Keep the transceiver and microphone at least 1 meter (3.3 feet) away from your vessel's magnetic navigation compass.

NOTE:
- Check the installation angle. The function display may not be easy to read at some angles.
- When mounting the transceiver on the place that is prone to strong vibration, use the supplied sponges between the transceiver and mounting bracket to reduce the vibration.



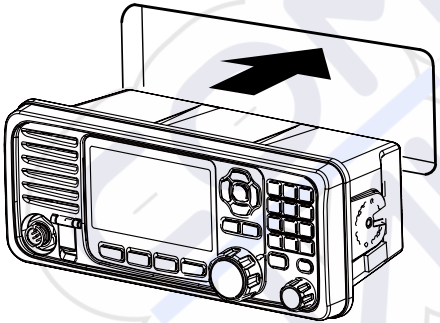
*Sponges reduce the vibration effects. See NOTE shown to the left.

■ MB-132 installation

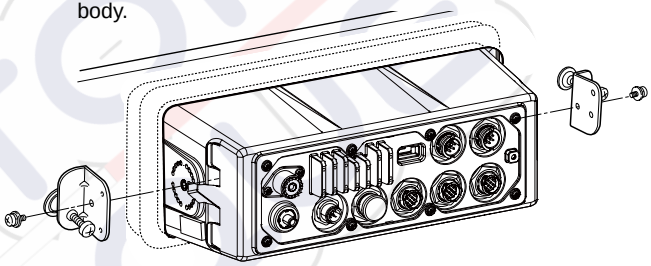
An optional MB-132 FLUSH MOUNT KIT is used to mount the transceiver to a flat surface such as an instrument panel.

CAUTION: Keep the transceiver and microphone at least 1 meter (3.3 feet) away from your vessel's magnetic navigation compass.

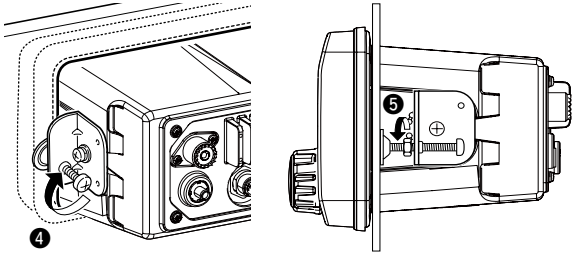
1. Using the template comes with the transceiver, carefully cut a hole in the instrument panel, or wherever you plan to mount the transceiver.
2. Slide the transceiver through the hole.



3. Attach clamps on both sides of the transceiver using 2 supplied (M5 × 8 mm) bolts.
   ⓘ Make sure that the clamps align parallel to the transceiver's body.



4. Tighten the end bolts on the clamps (rotate clockwise) so that they press firmly against the inside of the instrument control panel (❹). (Torque: 0.6 N•m)
5. Tighten the locking nuts (rotate counterclockwise) so that the transceiver is securely mounted in position, as shown below (❺).
6. Connect the antenna and power cable, then return the instrument control panel to its original place.



■ Microphone installation

Connect the optional HM-195*1 or HM-229 to the transceiver using the supplied OPC-2384 CONVERSION CABLE*2 and the OPC-1540 CONNECTION CABLE that comes with the microphone.

*1 Not usable for the IC-M605EURO.

*2 May not be supplied, depending on the transceiver version.

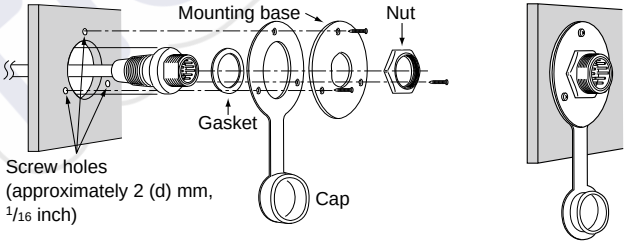
ⓘ To operate from even longer distances, connect the optional 6 meter long OPC-1541 MICROPHONE EXTENSION CABLE between the OPC-2384 and the OPC-1540. Up to two OPC-1541 can be added.

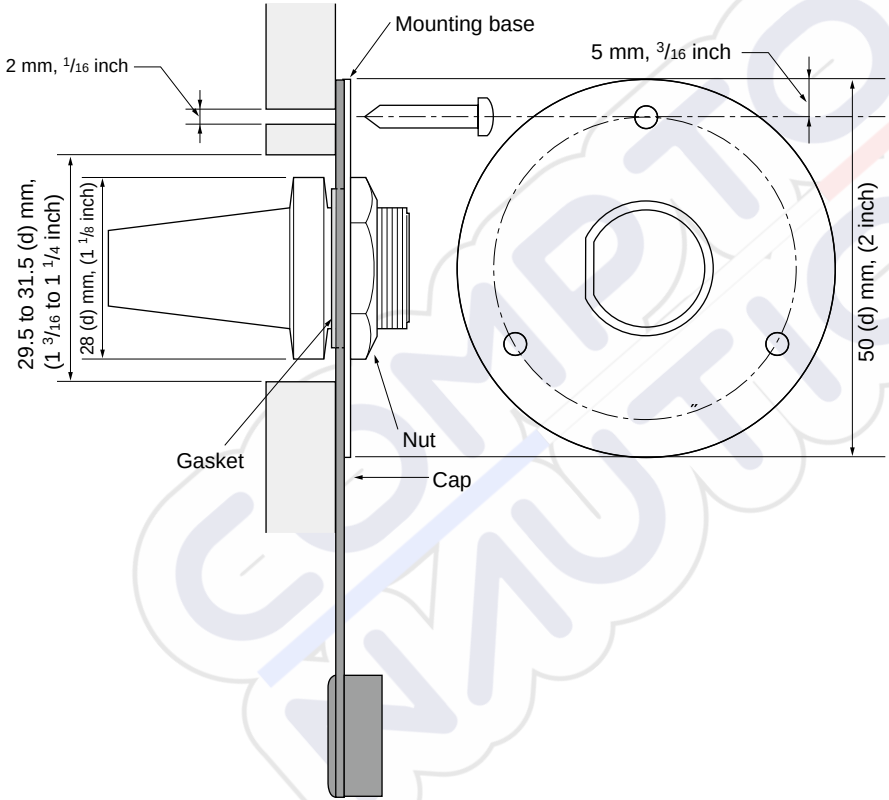
You can also install the cable connector as a built-in plug on a cabinet or wall.

NOTE: The firmware of HM-195/HM-229 may be update when you connect them to the transceiver.

◇ Installation

1. Connect the OPC-2384 and OPC-1540.
2. Connect the other side of the OPC-2384 to the command microphone connector, and tighten the nut.
3. To use the cable connector as a wall socket, install it as shown below.
4. Using the mounting base as a template, carefully mark the holes where the cable and 3 screws will be fastened.
5. Drill holes at these marks.
6. Install the mounting base using the supplied screws, as shown below.




Mounting base
2 mm, 1/16 inch
5 mm, 3/16 inch
29.5 to 31.5 (d) mm,
(1 3/16 to 1 1/4 inch)
28 (d) mm, (1 1/8 inch)
50 (d) mm, (2 inch)
Gasket
Nut
Cap

13 SPECIFICATIONS AND OPTIONS

■ Specifications

IC-M605

◇ General

• Frequency coverage:	TX	156.025 ~ 161.600 MHz
	RX	156.050 ~ 163.275 MHz
		156.525 MHz (CH70/DSC)
• Mode:	FM (16K0G3E), DSC (16K0G2B)	
• Operating temperature range:	–20°C ~ +60°C (–4ºF ~ +140ºF)	
• Current drain:	TX high (25 W)	6.0 A maximum
	RX Maximum audio	8.0 A*
• Power supply requirement:	13.8 V DC nominal (negative ground)	
• Frequency stability:	±5 ppm	
• Antenna impedance:	50 Ω nominal	
• Dimensions (projections not included):	274 (W) × 114 (H) × 121.5 (D) mm 10.8 (W) × 4.5 (H) × 4.8 (D) inches	
• Weight (approximately):	1.5 kg, 3.3 lb	

*When options (3 command microphones, hailer speaker, and external speaker) are connected.

◇ Transmitter

• Output power:	25 W or 1 W
• Modulation system:	Variable reactance frequency modulation
• Maximum frequency deviation:	±5 kHz
• Spurious emissions:	Less than –70 dBc (High) Less than –56 dBc (Low)
• Adjacent channel power:	More than 70 dB
• Audio harmonic distortion:	Less than 10% (at 60% deviation)
• Residual modulation:	More than 40 dB
• Audio frequency response:	+1 ~ –3 dB of 6 dB/octave range from 300 Hz to 2500 Hz

◇ Receiver

• Receive system:	Double conversion superheterodyne
• Sensitivity:	
FM:	–13 dBµ (typical) (12 dB SINAD)
DSC (CH70):	–3 dBµ emf (typical) (1% BER)
• Squelch sensitivity:	Less than –7 dBµ
• Intermodulation:	
FM:	More than 80 dB
DSC (CH70):	More than 73 dBµ emf (1% BER)
• Spurious response:	
FM:	More than 77 dB
DSC (CH70):	More than 73 dBµ emf (1% BER)
• Adjacent channel selectivity:	
FM:	More than 80 dB
DSC (CH70):	More than 80 dBµ emf (1% BER)
• Audio output power:	More than 15 W at 10% distortion into a 4 Ω load
• Ham and noise:	More than 40 dB
• Audio frequency response:	+1 ~ –3 dB of –6 dB/octave range from 300 Hz to 3000 Hz

All stated specifications are subject to change without notice or obligation.

IC-M605EURO
(According to EN301 025)

◇ General

- Frequency coverage: TX 156.000 ~ 161.600 MHz
  RX 156.000 ~ 163.425 MHz
  156.525 MHz (CH70/DSC)
- Mode: FM (16K0G3E), DSC (16K0G2B)
- Operating temperature range: –20°C ~ +60°C
- Current drain: TX high (25 W) 6.0 A maximum
  RX Maximum audio 8.0 A*
- Power supply requirement: 13.8 V DC nominal (negative ground)
- Frequency error: Less than ±0.5 kHz
- Antenna impedance: 50 Ω nominal
- Dimensions (projections not included): 274 (W) × 114 (H) × 121.5 (D) mm
- Weight (approximately): 1.5 kg

*When options (3 command microphones, hailer speaker, and external speaker) are connected.

◇ Transmitter

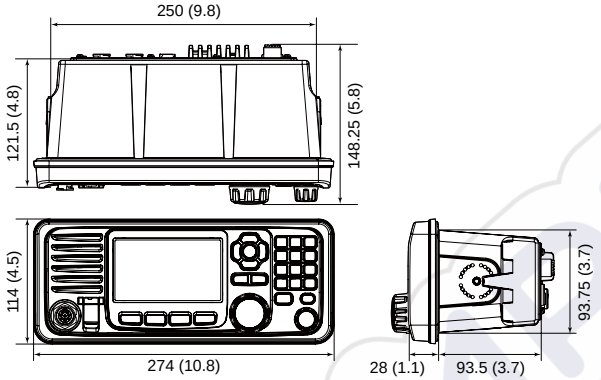
- Output power: 25 W or 1 W
- Modulation system: Variable reactance frequency modulation
- Maximum frequency deviation: ±5 kHz
- Spurious emissions: Less than 0.25 µW
- Adjacent channel power: More than 70 dB
- Audio harmonic distortion: Less than 10% (at 60% deviation)
- Residual modulation: More than 40 dB
- Audio frequency response: +1 ~ –3 dB of 6 dB/octave range from 300 Hz to 3000 Hz

◇ Receiver

- Receive system: Double conversion superheterodyne
- Sensitivity:
  FM: –5 dBµ emf (typical) (20 dB SINAD)
  DSC (CH70): –3 dBµ emf (typical) (1% BER)
- Squelch sensitivity: Less than –2 dBµ emf
- Intermodulation:
  FM: More than 75 dB
  DSC (CH70): More than 73 dBµ emf (1% BER)
- Spurious response:
  FM: More than 75 dB
  DSC (CH70): More than 73 dBµ emf (1% BER)
- Adjacent channel selectivity:
  FM: More than 75 dB
  DSC (CH70): More than 80 dBµ emf (1% BER)
- Audio output power: More than 15 W at 10% distortion into a 4 Ω load
- Hum and noise: More than 40 dB
- Audio frequency response: +1 ~ –3 dB of –6 dB/octave range from 300 Hz to 3000 Hz

◇ Dimensions

Unit: mm (inch)



■ Options

◇ Command head and cables

• **RC-M600** COMMAND HEAD

The command head with the same front panel as the transceiver. Mounting bracket, microphone, and a 10 meter (32.8 feet) connection cable included.

• **OPC-2383** CONTROL CABLE*

10 meter (32.8 feet) cable to connect the transceiver and RC-M600 COMMAND HEAD.

*The same cable as the cable supplied with RC-M600.

• **OPC-2377** EXTENSION CABLE

10 meter (32.8 feet) extension cable.

◇ Microphone and cables

• **HM-195GB/HM-195GW** COMMANDMICIV™*

External microphone-type controller. Provides optional intercom operation. 6 meters (20 feet) microphone cable and mounting base included.

HM-195GB: Black

HM-195GW: White

*Not usable for the IC-M605EURO.

• **HM-229B/HM-229W** COMMANDMICV™

External microphone-type controller without [DISTRESS] key.

HM-229B: Black

HM-229W: White

• **OPC-2384** CONVERSION CABLE
The cable to connect the transceiver and HM-195 or HM-229.

• **OPC-1541** MICROPHONE EXTENSION CABLE
6 meters (20 feet) microphone extension cable for optional HM-195 or HM-229. Up to two OPC-1541 can be connected. Usable length is 18 meters (60 feet) maximum.

• **HM-205RB** SPEAKER MICROPHONE
Equipped with [▲]/[▼] (channel up/down), [H/L], [16/C], and [PTT] keys, a speaker and microphone.

◇ Others

• **SP-37** HORN SPEAKER
The external horn speaker. Connect using the supplied 6 pin accessory connector that supplied with the transceiver.

• **MA-500TR** CLASS B AIS TRANSPONDER
To transmit individual DSC calls to a selected AIS targets.

• **MB-132/MB-75** FLUSH MOUNT KIT
To mount the transceiver to a panel.

• **UX-241** GNSS ANTENNA*
To receive GPS signals.
*The same GPS antenna as the antenna supplied with the transceiver.

• **UT-112** VOICE SCRAMBLER UNIT
Ensures private communications. 32 codes are selectable. Not available in some countries.
Ask your service center or technical dealer for installation details.

• **UX-251** AIS RECEIVER UNIT
The optional AIS unit for the version without AIS function. Ask your service center or technical dealer for installation details.

14 TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION	REF.
The transceiver does not turn ON.	• Bad connection to the power supply. • Blown fuse.	• Check the connection to the transceiver and power supply. • Repair the problem, and then replace the fuse.	p. 94 p. 96
Little or no sound comes from the speaker.	• Squelch level is set too high. • Volume level is set too low. • The internal speaker is OFF.	• Set the squelch to the threshold point. • Set the volume to a suitable level. • Turn ON the internal speaker.	p. 18 p. 18 p. 87
You cannot transmit, or cannot select high power.	• Some channels are set for low power or receive only by regulations. • The output power is set to low.	• Change channels. • Push [HI/LO] to select high power.	pp.14,108 p. 18
Scan does not start.	• More than 2 favorite channels are not set.	• Set the Favorite channels.	pp.23,90
No beep sounds.	• The Key Beep function is OFF.	• Turn ON the Key Beep function.	p. 85
The Main screen is not displayed at power ON.	• MMSI (DSC self ID) code is not set.	• Set the MMSI (DSC self ID) code.	p. 9
Individual or Group ID cannot be set.	• The entered ID code is incorrect. First digit must be set to between ‘1’ and ‘9’ for an Individual ID. First digit must be set to ‘0’ for a Group ID.	• Enter a correct ID code.	pp.25,26
“??” blinks instead of the position and time.	• 4 hours have passed since you manually entered the position. • The GPS position is invalid.	• Enter the position.	p. 27
“NO POSITION” and “NO TIME” are displayed instead of the position and time.	• The GPS antenna is not correctly connected. • The position and time have not been manually entered.	• Check the GPS antenna connection. • Enter the position and time.	p. 94 p. 27

PROBLEM	POSSIBLE CAUSE	SOLUTION	REF.
Sensitivity is too low, and only strong signals can be heard.	• The antenna is defective or the coaxial cable connector is shorted or cut.	• Repair the problem and then reconnect to the antenna connector.	p. 94
Communication cannot be established.	• The antenna is defective or the coaxial cable connector is shorted or cut.	• Repair the problem and then reconnect to the antenna connector.	p. 94
The transceiver is locked up, and does not respond.	• A software error has occured.	• Turn OFF the transceiver, and then turn it ON again.	—
The transceiver does not work.	• The transceiver's Phase Lock Loop is unlocked.	• Contact your dealer.	—

◇ For IC-M605

Channel Number			Frequency (MHz)	
USA	INT	CAN	Transmit	Receive
	01	01	156.050	160.650
1001	1001*6		156.050	156.050
	02	02	156.100	160.700
	03	03	156.150	160.750
1003*5			156.150	156.150
	04		156.200	160.800
		1004	156.200	156.200
	05		156.250	160.850
1005	1005*6	1005	156.250	156.250
06	06	06	156.300	156.300
	07		156.350	160.950
1007	1007*6	1007	156.350	156.350
08	08	08	156.400	156.400
09	09	09	156.450	156.450
10	10	10	156.500	156.500
11	11	11	156.550	156.550
12	12	12	156.600	156.600
13*1	13	13*2	156.650	156.650
14	14	14	156.700	156.700
15*4	15*3	15*2	156.750	156.750
16	16	16	156.800	156.800
17*2	17	17*2	156.850	156.850
	18		156.900	161.500
1018	1018*6	1018	156.900	156.900
	19		156.950	161.550
1019	1019	1019	156.950	156.950
	2019		161.550*7	161.550
20	20	20*2	157.000	161.600
1020	1020		157.000	157.000

Channel Number			Frequency (MHz)	
USA	INT	CAN	Transmit	Receive
	2020		161.600*7	161.600
	21	21*5	157.050	161.650
1021	1021*6	1021	157.050	157.050
		2021	RX only	161.650
	22		157.100	161.700
1022	1022*6	1022	157.100	157.100
	23	23	157.150	161.750
1023	1023*6		157.150	157.150
		2023*6	RX only	161.750
24	24*5	24	157.200	161.800
25	25*5	25	157.250	161.850
		2025	RX only	161.850
26	26*5	26	157.300	161.900
27	27	27	157.350	161.950
	1027*6		157.350	157.350
28	28	28	157.400	162.000
	1028*6		157.400	157.400
		2028	RX only	162.000
	60	60	156.025	160.625
	61		156.075	160.675
1061*5		1061	156.075	156.075
	62		156.125	160.725
		1062	156.125	156.125
	63		156.175	160.775
1063	1063*6	1063*6	156.175	156.175
	64	64	156.225	160.825
1064*5		1064	156.225	156.225
	65		156.275	160.875
1065	1065*6	1065*3	156.275	156.275

Channel Number			Frequency (MHz)	
USA	INT	CAN	Transmit	Receive
	66		156.325	160.925
1066	1066*6	1066*2	156.325	156.325
67*1	67	67	156.375	156.375
68	68	68	156.425	156.425
69	69	69	156.475	156.475
71	71	71	156.575	156.575
72	72	72	156.625	156.625
73	73	73	156.675	156.675
74	74	74	156.725	156.725
75*5	75*2	75*2	156.775	156.775
76*5	76*2	76*2	156.825	156.825
77*2	77	77*2	156.875	156.875
	78		156.925	161.525
1078	1078	1078	156.925	156.925
	2078		161.525*7	161.525
	79		156.975	161.575
1079	1079	1079	156.975	156.975
	2079		161.575*7	161.575
	80		157.025	161.625
1080	1080*6	1080	157.025	157.025
	81		157.075	161.675
1081	1081*6	1081	157.075	157.075
	82		157.125	161.725
1082	1082*6	1082	157.125	157.125
	83	83*5	157.175	161.775
1083	1083*6	1083	157.175	157.175
		2083	RX only	161.775
84	84*5	84	157.225	161.825
1084*5			157.225	157.225

Channel Number			Frequency (MHz)	
USA	INT	CAN	Transmit	Receive
85	85*5	85	157.275	161.875
1085*5			157.275	157.275
86	86*5	86	157.325	161.925
1086*5			157.325	157.325
87	87	87	157.375	157.375
1087*5			157.375	157.375
88	88	88	157.425	157.425
1088*5			157.425	157.425

WX channel*6	Frequency (MHz)	
	Transmit	Receive
1	RX only	162.550
2	RX only	162.400
3	RX only	162.475
4	RX only	162.425
5	RX only	162.450
6	RX only	162.500
7	RX only	162.525
8	RX only	161.650
9	RX only	161.775
10	RX only	163.275

NOTE: Simplex channels, 1021, 1023, 1081, 1082 and 1083 **CANNOT** be lawfully used by the general public in USA waters.

*1 Momentary high power. *2 Low power only. *3 Low power only for the USA version. *4 RX only for the USA version, and Momentary high power for the CHN version.
*5 For only the CHN version. *6 For only the USA version. *7 RX only for the USA version.

◇ For IC-M605EURO

• International channels

CH	Frequency (MHz)		CH	Frequency (MHz)		CH	Frequency (MHz)		CH	Frequency (MHz)		CH	Frequency (MHz)		CH	Frequency (MHz)		CH	Frequency (MHz)	
	Transmit	Receive		Transmit	Receive		Transmit	Receive		Transmit	Receive		Transmit	Receive		Transmit	Receive		Transmit	Receive
01	156.050	160.650	11	156.550	156.550	2019	RX Only	161.550	27	157.350	161.950	66	156.325	160.925	77	156.875	156.875	83	157.175	161.775
02	156.100	160.700	12	156.600	156.600	20	157.000	161.600	28	157.400	162.000	67	156.375	156.375	78	156.925	161.525	84	157.225	161.825
03	156.150	160.750	13	156.650	156.650	1020	157.000	157.000	31*1,3	157.550	162.150	68	156.425	156.425	1078	156.925	156.925	85	157.275	161.875
04	156.200	160.800	14	156.700	156.700	2020	RX Only	161.600	1037*2	157.850	157.850	69	156.475	156.475	2078	RX Only	161.525	86	157.325	161.925
05	156.250	160.850	15*1	156.750	156.750	21	157.050	161.650	60	156.025	160.625	71	156.575	156.575	79	156.975	161.575	87	157.375	157.375
06	156.300	156.300	16	156.800	156.800	22	157.100	161.700	61	156.075	160.675	72	156.625	156.625	1079	156.975	156.975	88	157.425	157.425
07	156.350	160.950	17*1	156.850	156.850	23	157.150	161.750	62	156.125	160.725	73	156.675	156.675	2079	RX Only	161.575	P4*4	161.425	161.425
08	156.400	156.400	18	156.900	161.500	24	157.200	161.800	63	156.175	160.775	74	156.725	156.725	80	157.025	161.625			
09	156.450	156.450	19	156.950	161.550	25	157.250	161.850	64	156.225	160.825	75*1	156.775	156.775	81	157.075	161.675			
10	156.500	156.500	1019	156.950	156.950	26	157.300	161.900	65	156.275	160.875	76*1	156.825	156.825	82	157.125	161.725			

*1 Low power only.
*2 For only the HOL and UK version (UK Marina Channel: M1=1037 (157.850 MHz) for UK version), and Low power only for the HOL version.
*3 For only the HOL version.
*4 UK Marina Channel: M2=P4 (161.425 MHz) for only the UK version.

15 CHANNEL LIST

• **USA channels** (For only the UK version.)

CH	Frequency (MHz)		CH	Frequency (MHz)		CH	Frequency (MHz)		CH	Frequency (MHz)		CH	Frequency (MHz)	
	Transmit	Receive		Transmit	Receive		Transmit	Receive		Transmit	Receive		Transmit	Receive
1001	156.050	156.050	15	RX Only	156.750	25	157.250	161.850	71	156.575	156.575	84	157.225	161.825
1005	156.250	156.250	16	156.800	156.800	26	157.300	161.900	72	156.625	156.625	85	157.275	161.875
06	156.300	156.300	17*1	156.850	156.850	27	157.350	161.950	73	156.675	156.675	86	157.325	161.925
1007	156.350	156.350	1018	156.900	156.900	28	157.400	162.000	74	156.725	156.725	87	157.375	157.375
08	156.400	156.400	1019	156.950	156.950	1037	157.850	157.850	77*1	156.875	156.875	88	157.425	157.425
09	156.450	156.450	20	157.000	161.600	1063	156.175	156.175	1078	156.925	156.925	P4	161.425	161.425
10	156.500	156.500	1020	157.000	157.000	1065	156.275	156.275	1079	156.975	156.975			
11	156.550	156.550	1021	157.050	157.050	1066	156.325	156.325	1080	157.025	157.025			
12	156.600	156.600	1022	157.100	157.100	67*2	156.375	156.375	1081	157.075	157.075			
13*2	156.650	156.650	1023	157.150	157.150	68	156.425	156.425	1082	157.125	157.125			
14	156.700	156.700	24	157.200	161.800	69	156.475	156.475	1083	157.175	157.175			

*1 Low power only.

*2 Momentary high power.

NOTE: Simplex channels, 1021, 1023, 1081, 1082 and 1083 **CANNOT** be lawfully used by the general public in USA waters.

■ About CE and DOC

CE Hereby, Icom Inc. declares that the versions of IC-M605EURO which have the “CE” symbol on the product, comply with the essential requirements of the Radio Equipment Directive, 2014/53/EU, and the restriction of the use of certain hazardous substances in electrical and electronic equipment Directive, 2011/65/EU. The full text of the EU declaration of conformity is available at the following internet address:

https://www.icomjapan.com/support/

■ Disposal

The crossed-out wheeled-bin symbol on your product, literature, or packaging reminds you that in the European Union, all electrical and electronic products, batteries, and accumulators (rechargeable batteries) must be taken to designated collection locations at the end of their working life. Do not dispose of these products as unsorted municipal waste. Dispose of them according to the laws in your area.

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MEMO

Count on us!

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ICOM

BASIS BEDIENUNGSANLEITUNG

MANUAL BÁSICO

NOTICE DE BASE

MANUALE BASE

DEUTSCH

ESPAÑOL

FRANÇAIS

ITALIANO

UKW MARINEFUNKGERÄT
TRANSCEPTOR DE MARINA VHF
EMETTEUR-RECEPTEUR VHF MARINE
RICETRASMETTITORE VHF NAUTICO

IC-M605EURO

Icom Inc.

DEUTSCH

Vielen Dank dafür, dass Sie dieses Icom-Produkt erworben haben. Dieses Produkt wurde auf der Basis der hochmodernen Technologie und Kompetenz von Icom entwickelt und gebaut. Mit der richtigen Pflege sollte dieses Produkt Ihnen viele Jahre störungsfreien Betrieb bieten.
Der IC-M605EURO hat DSC-Funktionen für Senden und Empfangen von Notrufen, ebenso wie allgemeine DSC-Rufe (einzelner Ruf, Ruf an alle Schiffe, Gruppenruf usw).

WICHTIG

LESEN SIE DIESE ANLEITUNG aufmerksam durch, bevor Sie das Funkgerät benutzen.

BEWAHREN SIE DIESE BEDIENUNGSANLEITUNG AUF — diese Bedienungsanleitung enthält wichtige Bedienungsinformationen für den IC-M605EURO.

Die detailierte Bedienungsanleitung steht Ihnen auf unserer Webseite unter www.icomeurope.com zum Download bereit.

Icom ist nicht verantwortlich für die Zerstörung, Beschädigung oder Leistung eines Icom- oder Nicht-Icom-Geräts, wenn die Fehlfunktion folgende Ursachen hat:
- Höhere Gewalt, einschließlich, aber nicht beschränkt auf, Brände, Erdbeben, Stürme, Überschwemmungen, Blitzschlag, andere Naturkatastrophen, Unruhen, Krawalle, Krieg oder radioaktive Kontamination.
- Die Verwendung von Icom-Transceivern mit jeglichen Geräten, die nicht von Icom hergestellt oder zugelassen sind.

Siehe englische Bedienungsanleitung des IC-M605EURO für Informationen über die Funktionen, die nicht in in dieser Basis-Anleitung beschrieben sind.

AUSDRÜCKLICHE DEFINITIONEN

BEGRIFF	DEFINITION
⚠**WARNUNG!**	Es besteht die Gefahr von Personenschäden, Brand oder Stromschlägen.
VORSICHT	Das Gerät kann beschädigt werden.
HINWEIS	Empfehlung für optimale Benutzung. Es besteht keine Gefahr von Personenschäden, Brand oder Stromschlägen.

Das BEDIENFELD GRÜNDLICH MIT FRISCHWASSER REINIGEN, nachdem es Salzwasser ausgesetzt wurde, und vor der erneuten Inbetriebnahme trocknen. Andernfalls können die Tasten, Schalter und sonstigen Bedienelemente des Bedienfelds durch kristallisierendes Salz zerstört werden.

HINWEIS: Wenn der wasserfeste Schutz des Bedienfelds defekt erscheint, sorgfältig mit einem weichen, (mit Frischwasser) befeuchteten Lappen reinigen und vor der Inbetriebnahme trocknen. Das Bedienfeld kann seinen wasserdichten Schutz verlieren, wenn das Gehäuse oder die Steckerkappe gesprungen oder beschädigt ist oder der Transceiver fallengelassen wurde.

IM NOTFALL

Wenn Sie Hilfe benötigen, kontaktieren Sie andere Seefunkstellen und die Küstenfunkstelle durch Absetzen eines Notalarms über DSC (Digitales Selektivrufverfahren) auf Kanal 70.

NOTRUF ÜBER KANAL 16
NOTRUFVERFAHREN
1. „MAYDAY MAYDAY MAYDAY.“
2. „HIER IST .....“ (Schiffsname)
3. Ihr Rufzeichen oder eine andere Schiffskennung (UND die 9-stellige DSC-ID, falls Sie eine haben).
4. „MEINE POSITION IST .....“ (Ihre Position)
5. Grund des Notalarms (z.B. Feuer an Bord)
6. Geben Sie andere Informationen, die die Rettung erleichtern könnten.

Wenn Sie Hilfe benötigen, kontaktieren Sie andere Seefunkstellen und die Küstenfunkstelle durch Absetzen eines Notalarms über DSC (Digitales Selektivrufverfahren) auf Kanal 70.

DSC-NOTALARMIERUNG (Kanal 70)
NOTRUFVERFAHREN
1. Schutzkappe anheben und die [DISTRESS]-Taste 3 Sek. lang gedrückt halten, bis 3 kurze Signaltöne und ein langer Signalton zu hören sind.
2. Warten Sie die Quittierung durch eine Küstenfunkstelle ab.
   • Nachdem die Bestätigung empfangen ist, wird Kanal 16 automatisch ausgewählt.
3. Den Notalarm wie unten beschrieben über Sprechfunk durchgeben. Dazu die [PTT]-Taste gedrückt halten.

INSTALLATIONSHINWEISE

Einbau:
Der Einbau dieses Geräts muss so erfolgen, dass die von der EG empfohlenen Belastungsgrenzwerte durch elektromagnetische Felder beachtet werden. (1999/519/EG)

Die maximale Sendeleistung dieser Funkanlage beträgt 25 W. Um eine größtmögliche Reichweite zu erzielen, sollte die Antenne so hoch wie moglich angebracht werden. Dabei sollte die Mindesthöhe über Grund 1,76 m betragen. Sollte es nicht möglich sein, die Antenne in ausreichender Höhe zu installieren oder sollten sich Personen im Umkreis von 1,76 m zur Antenne aufhalten, darf mit der Funkanlage nicht über längere Zeit gesendet werden. Senden Sie niemals, wenn Personen die Antenne berühren!

Es wird empfohlen, Antennen von maximal 3 dB Verstärkung zu verwenden. Falls eine Antenne mit einem höheren Gewinn genutzt werden soll, wenden Sie sich bitte an Ihren Händler, damit er Sie über Besonderheiten der Installation der Antenne informiert.

Betrieb:
Die Exposition gegenüber elektromagnetischen HF-Feldern tritt nur auf, wenn das Gerät sendet. Die durchschnittliche Sendeleistung hängt im Wesentlichen vom Sende/Empfangsverhältnis ab. Es ist ratsam, die Sendedauer so kurz wie möglich zu halten.

VORSICHTSMASSREGELN

⚠**WARNUNG! NIEMALS** den Transceiver an eine Netzsteckdose (Wechselstrom) anschließen. Andernfalls kann es zu einem Brand und/ oder Stromschlag kommen.

⚠**WARNUNG! NIEMALS** den Transceiver an eine Stromversorgung mit mehr als 16 V Gleichspannung, wie zum Beispiel eine 24-V-Batterie, anschließen. Dadurch wird der Transceiver möglicherweise beschädigt.

⚠**WARNUNG! NIEMALS** die Polarität des Gleichstrom-Versorgungskabels umkehren, wenn Sie eine Stromversorgung anschließen. Dadurch wird der Transceiver möglicherweise beschädigt.

⚠**WARNUNG! NIEMALS** das Gleichstrom-Versorgungskabel zwischen dem DC-Stecker an der Rückseite des Transceivers und dem Sicherungshalter schneiden. Bei einem fehlerhaften Anschluss an die Spannungsversorgung könnte das Funkgerät beschädigt werden.

⚠**WARNUNG! NIEMALS** den Transceiver während eines Gewitters bedienen. Dabei besteht die Gefahr von elektrischem Schlag, Brand oder Beschädigung des Transceivers. Immer die Stromversorgung und Antenne vor einem Sturm abtrennen.

⚠**WARNUNG! NIEMALS** den Transceiver so platzieren, dass der normale Betrieb des Schiffes behindert werden kann, oder so, dass Körperverletzungen verursacht werden können.

VORSICHT: HALTEN Sie den Transceiver und das Mikrofon mindestens 1 Meter vom magnetischen Navigationskompass des Schiffs entfernt.

VORSICHT!NICHT den Transceiver an Orten mit Temperaturen unter -20°C oder über +60°C oder an Orten mit direktem Sonnenlicht, wie z.B. einem Armaturenbrett verwenden oder platzieren.

VORSICHT! NICHT starke Lösungsmittel wie Benzol oder Alkohol zum Reinigen des Transceivers verwenden, da diese die Oberflächen des Transceivers angreifen. Bei Verschmutzungen oder Staub wischen Sie das Funkgerat nur mit einem weichen, trockenen Tuch ab.

Stellen Sie den Transceiver **NIEMALS** an unsicheren Orten auf, um die unbeabsichtigte Verwendung durch Unbefugte zu verhindern.

SEIEN SIE VORSICHTIG! Bei längerem ununterbrochenen Sendebetrieb wird die Rückseite des Funkgerätes heiss.

SEIEN SIE VORSICHTIG! Das Bedienfeld des Transceivers erfüllt die Bedingungen für den wasserdichten Schutz nach IPX8 und das optionale COMMANDMIC V™ HM-229 erfüllt die Bedingungen für den wasserdichten Schutz nach IPX7*. Wenn der Transceiver oder das Mikrofon jedoch heruntergefallen ist oder die wasserdichte Versiegelung gerissen oder beschädigt ist, kann die Wasserfestigkeit nicht mehr garantiert werden, weil möglicherweise Schäden am Gehäuse oder der Versiegelung vorliegen.

* Außer für den Gleichstromanschluss, die NMEA-Zu-/Ableitungen und die AF-Ableitungen.

ENTSORGUNG

Das Symbol einer durchgestrichenen Abfalltonne auf Rädern auf dem Produkt, den zugehörigen Unterlagen oder der Verpackung weist darauf hin, dass in den Ländern der EU alle elektrischen und elektronischen Produkte, Batterien und Akkumulatoren (aufladbare Batterien) am Ende ihrer Lebensdauer bei einer benannten Sammelstelle abgegeben werden müssen. Entsorgen Sie diese Produkte nicht über den unsortierten Hausmüll. Entsorgen Sie sie entsprechend den bei Ihnen geltenden Bestimmungen.

INHALTSVERZEICHNIS

GRUNDREGELN

◇ Vorrang von Notrufen

- Lesen Sie alle Regeln und Vorschriften, die den Vorrang von Notrufen betreffen, und halten Sie eine aktuelle Ausgabe bereit Notrufe haben Vorrang vor allem anderen.
- Beobachten Sie ständig den Kanal 16, sofern Sie nicht gerade auf einem anderen Kanal kommunizieren.
- Falsche oder vorgetäuschte Notrufe sind gesetzlich verboten und stehen unter Strafe.

◇ Geheimhaltung

- Informationen, die Sie erlangen, ohne dass diese für Sie bestimmt waren, dürfen Sie nicht an Dritte weitergeben oder anderweitig verwenden.
- Anstößige oder lästerliche Ausdrücke sind verboten.

◇ Gesetzliche Bestimmungen

(1) MOBILE FUNKSTELLE DER SEE- ODER BINNENSCHIFFFAHRT

Nach den Bestimmungen des Telekommunikationsgesetzes (TKG) ist das Errichten und Betreiben jeder Funkanlage genehmigungspflichtig. Das Betreiben einer genehmigungspflichtigen mobilen Funkstelle der See- oder Binnenschifffahrt ohne Genehmigung ist eine Ordnungswidrigkeit und wird mit Bußgeld geahndet.

Der Betrieb einer mobilen Funkstelle der See- oder Binnenschifffahrt muss durch die Bundesnetzagentur (BNetzA) genehmigt sein. Das Errichten und Betreiben bedarf einer Frequenzzuteilung gemäß der Vollzugsordnung für den Funkdienst (Radio Regulations).

(2) FREQUENZZUTEILUNGSURKUNDE

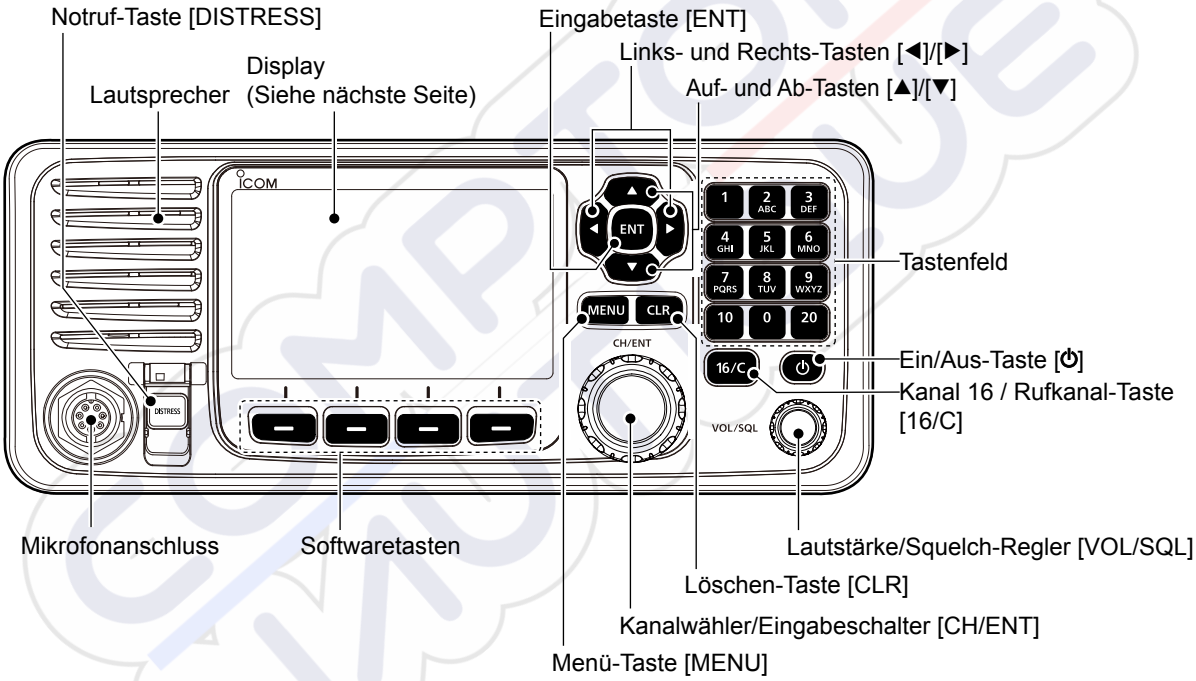
Die Genehmigung (Frequenzzuteilungsurkunde) zum Betreiben einer Seefunkstelle erteilt die Außenstelle der Bundesnetzagentur (BNetzA) in Hamburg, die zum Betreiben einer Funkstelle des Binnenfunkdienstes erteilt die Außenstelle der Bundesnetzagentur (BNetzA) in Mülheim.

Wenn vorgeschrieben, muss die eingeschränkte Funklizenz sichtbar angebracht oder vom Betreiber aufbewahrt werden. Wenn vorgeschrieben, darf nur ein lizenzierter Funker den Transceiver betreiben.

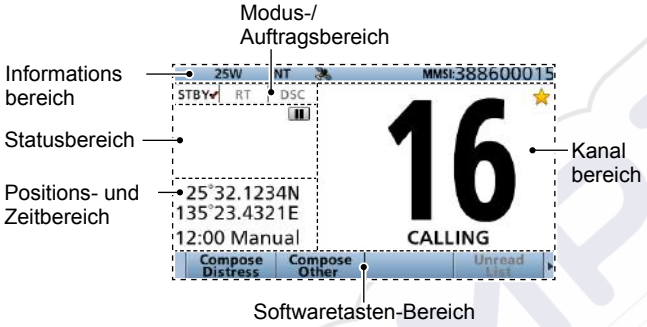
Personen, die ein Sprechfunkgerät für den See- oder Binnenfunkdienst betreiben möchten, müssen über ein gültiges Sprechfunkzeugnis verfügen. Je nach Ausrüstung bzw. Fahrtgebiet sind unterschiedliche Sprechfunkzeugnisse erforderlich.

Für den Betrieb einer Seefunkstelle im NON-GMDSS-Seefunkdienst oder einer Schiffsfunkstelle im Binnenfunkdienst ist mindestens das UBI erforderlich. Zum Bedienen einer GMDSS-Seefunkstelle ist mindestens das SRC erforderlich. Funkgespräche dürfen auch von Personen ohne Sprechfunkzeugnis geführt werden, wenn das Gespräch von einer Person mit gültigem Sprechfunkzeugnis aufgebaut und beendet wird. Nur öffentliche Nachrichten dürfen ausgetauscht werden und sind von dieser Person zu überwachen.

■ Frontseite


Notruf-Taste [DISTRESS]
Lautsprecher
Display
(Siehe nächste Seite)
Eingabetaste [ENT]
Links- und Rechts-Tasten [◀]/[▶]
Auf- und Ab-Tasten [▲]/[▼]
Tastenfeld
Ein/Aus-Taste [⏻]
Kanal 16 / Rufkanal-Taste [16/C]
Lautstärke/Squelch-Regler [VOL/SQL]
Löschen-Taste [CLR]
Kanalwähler/Eingabeschalter [CH/ENT]
Menü-Taste [MENU]
Softwaretasten
Mikrofonanschluss
ICOM
ENT
MENU
CLR
CH/ENT
16/C
VOL/SQL
DISTRESS
1
2 ABC
3 DEF
4 GHI
5 JKL
6 MNO
7 PQRS
8 TUV
9 WXYZ
10
0
20

■ Funktionsanzeige (Hauptbildschirm)



◇ Modus-/Auftragsbereich

Im Modus- und Auftragsbereich wird der aktuelle Modus angezeigt.

Anzeige	Beschreibung
STBY	Wird im Standby-Modus angezeigt.
RT	Wird im Sprechfunk-(RT)-Modus angezeigt. ⓘ „RT“ wird angezeigt, wenn der RT-Modus-Auftrag aktiviert ist. ⓘ Kehrt in den Standby-Modus zurück, wenn keine Bedienung während des voreingestellten Zeitraums vorgenommen wird.
DSC	Wird nach dem Senden oder Empfang eines DSC-Rufs angezeigt.

◇ Kanalbereich

Im Kanalbereich werden die ausgewählte Betriebskanalnummer, der Kanalname und die folgenden Anzeigen angezeigt.

Anzeige	Beschreibung
★	Wird angezeigt, wenn ein Favoritenkanal ausgewählt ist.
CALL	Wird angezeigt, wenn der Rufkanal durch Gedrückthalten von [16/C] für 1 Sekunden ausgewählt ist.
DUP	Wird angezeigt, wenn ein Duplexkanal ausgewählt ist.
+-	Wird angezeigt, wenn die Batteriespannung niedrig ist.

◇ Positions- und Zeitbereich

POSITIONSBEREICH

Die aktuelle Position wird angezeigt, wenn gültige GPS-Daten empfangen werden oder Sie Ihre Position manuell eingeben.

Anzeige	Beschreibung
NO POSITION	Wird angezeigt, wenn keine GPS-Antenne angeschlossen ist oder Sie Ihre Position nicht manuell eingegeben haben.
??	Blinkt alle 2 Sekunden anstelle Ihrer Position, wenn: • Die GPS-Position ungültig ist. • 4 Stunden vergangen sind, seitdem Sie Ihre Position manuell eingegeben haben. ⓘ Nachdem 23,5 Stunden vergangen sind, wird „NO POSITION“ angezeigt.

ZEITBEREICH
Die aktuelle Zeit wird angezeigt, wenn gültige GPS-Daten empfangen werden oder Sie die Zeit manuell eingeben. Die Zeitpunktsinformationen werden angezeigt, wenn das GPS-Signal im RMC-GPS-Satzformat vorliegt.

Anzeige	Beschreibung
NO TIME	Wird angezeigt, wenn keine GPS-Antenne angeschlossen ist oder Sie die Zeit nicht manuell eingegeben haben.
Local	Wird angezeigt, wenn die Zeitverschiebung eingestellt ist.
Manual	Wird angezeigt, wenn die Zeit manuell eingegeben wurde.
UTC	Wird angezeigt, wenn die GGA-, GLL- oder GNS-Sätze von NMEA 0183 empfangen wurden.
??	Blinkt alle 2 Sekunden anstelle der Zeit, wenn: • Die aktuelle GPS-Zeit ungültig ist. • 4 Stunden vergangen sind, seitdem Sie die Zeit manuell eingegeben haben. ⓘ Nachdem 23,5 Stunden vergangen sind, wird „NO TIME“ angezeigt.

◇ Statusbereich
Im Statusbereich wird der aktuelle Status angezeigt.

Anzeige	Beschreibung
SCAN 16	Wird während eines Prioritätssuchlaufs angezeigt.*
SCAN	Wird während eines normalen Suchlaufs angezeigt.*
DUAL 16	Wird während Dualwatch angezeigt.*
TRI 16	Wird während Tri-watch angezeigt.*
RX	Wird im RX-Hailermodus angezeigt.
▶ ⏸ ●	• Wird angezeigt, wenn der aufgenommene Ton abgespielt oder angehalten wird. • Wird angezeigt, wenn der empfangene Ton aufgezeichnet wird.

*In der holländischen Version nicht verwendbar.

◇ Informationsbereich

Der MMSI-Code* und die folgenden Anzeigen werden im Informationsbereich angezeigt.

*Der ATIS-Code wird angezeigt, wenn in der holländischen und deutschen Version nur der ATIS-Code eingegeben wird.

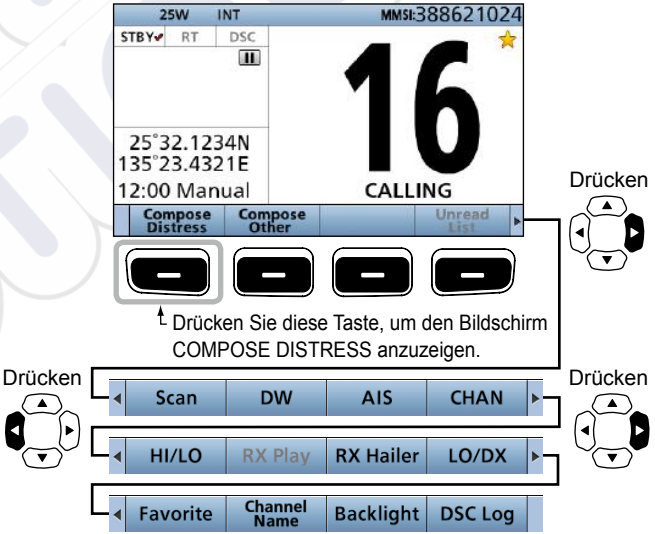
Anzeige	Beschreibung
BUSY	Wird angezeigt, wenn ein Signal empfangen wird oder wenn der Squelch geöffnet ist.
TX	Wird beim Senden angezeigt.
25W	Wird angezeigt, wenn hohe Leistung ausgewählt ist.
UTC	Wird angezeigt, wenn niedrige Leistung ausgewählt ist.
UTC	Zeigt die ausgewählte Kanalgruppe an.* *Welche Kanalgruppe wählbar ist, hängt möglicherweise von der Ausführung Ihres Transceivers ab.
	Wird angezeigt, wenn der Transceiver gültige Positions- und Zeitdaten empfängt. Blinkt, wenn ungültige GPS-Daten empfangen werden.
	• Wird angezeigt, wenn ungelesene DSC-Nachrichten vorhanden sind. • Blinkt, wenn eine DSC-Nachricht empfangen wurde.
	Wird angezeigt, wenn „CH Auto Switch“ in den DSC-Einstellungen auf eine andere Option als „Accept“ eingestellt ist.
	Wird angezeigt, wenn die automatische Nebelhornfunktion aktiviert ist.

■ Softwaretastenfunktionen

Der Transceiver hat Software-Tasten für verschiedene Funktionen. Die Tastenfunktion wird über der Software-Taste angezeigt.

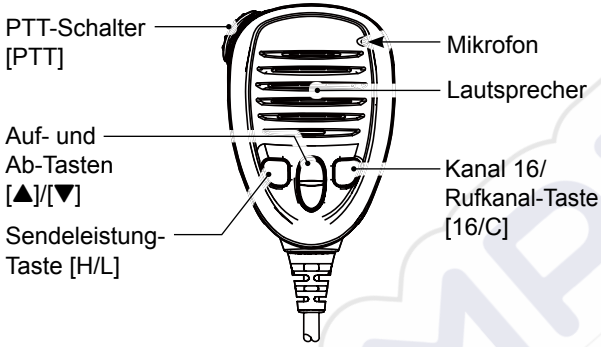
◇ Auswahl der Softwaretasten-Funktion*

Wenn „◀“ oder „▶“ neben dem Tastensymbol angezeigt wird, wird durch Drücken von [◀] oder [▶] durch die Softwaretasten-Funktionen geblättert. Wenn Sie [◀] oder [▶] einmal drücken, werden 4 Funktionen zusammen geblättert.



* Die Tastenfunktionen hängen möglicherweise von der Ausführung Ihres Funkgeräts ab.

■ Lautsprecher-Mikrofon



■ Eingeben des MMSI-Codes

Sie müssen zuerst den 9-stelligen MMSI (Maritime Mobile Service Identity: DSC Selbst-ID) Code beim Einschalten eingeben.

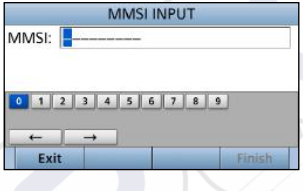
Dieser erstmalige Code kann nur einmal eingegeben werden.
Wenn Ihr MMSI-Code bereits eingegeben wurde, sind die unten stehenden Schritte nicht erforderlich.

1. Halten Sie [⏻] für 1 Sekunde gedrückt, um den Transceiver einzuschalten (ON).
   • Drei kurze Pieptöne ertönen.
   • „Push [ENT] to Register Your MMSI“ wird angezeigt.
2. Drücken Sie [ENT], um den MMSI-Codeeingabemodus zu betreten.

Drücken ENT

   • Drücken Sie [CLR] zum Löschen der Eingabe. In diesem Fall zeigt der Transceiver „Push [ENT] to Register Your MMSI“ erneut an.

3. Geben Sie Ihren 9-stelligen MMSI-Code ein.



Drücken 1 2 3 4 5 6 7 8 9 10 0 20 + Drehen CH/ENT

4. Drücken Sie nach der Eingabe der 9. Ziffer [Finish] [—], um die ID festzulegen.

Drücken —

5. Geben Sie Ihren MMSI-Code zur Bestätigung ein.

Drücken 1 2 3 4 5 6 7 8 9 10 0 20 + Drehen CH/ENT

6. Drücken Sie nach der Eingabe der 9. Ziffer [Finish] [—], um die ID zu registrieren.

Drücken —

   • Wenn Sie Ihren MMSI-Code erfolgreich eingeben, wird der folgende Bildschirm angezeigt.

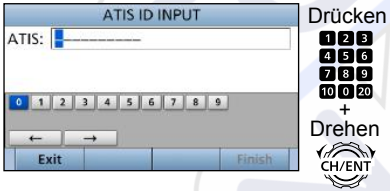
   • Danach wird der Hauptbildschirm angezeigt. Der registrierte MMSI-Code wird am oberen Rand des Bildschirms angezeigt.

■ Eingeben des ATIS-Codes

Die automatische Sender-Identifikationssystem-ID (ATIS) besteht aus 10 Ziffern. Sie können die ID im Punkt „ATIS ID Input“ im Menübildschirm eingeben.

Diese ID-Eingabe kann nur einmal durchgeführt werden.
Wenn Ihre ATIS-ID bereits eingegeben wurde, sind die untenstehenden Schritte nicht erforderlich.

1. Drücken Sie [MENU].
2. Wählen Sie „ATIS ID Input“, drücken Sie dann [ENT].
3. Geben Sie einen 10-stelligen ATIS-Code ein.



4. Drücken Sie nach der Eingabe der 10. Ziffer [Finish] [—], um die ID festzulegen.

5. Geben Sie Ihren ATIS-Code zur Bestätigung ein.

6. Drücken Sie nach der Eingabe der 10. Ziffer [Finish] [—], um die ID zu registrieren.

- Wenn Sie erfolgreich Ihren ATIS-Code erfolgreich eingeben, wird der folgende Bildschirm angezeigt.

■ Senden und Empfangen

VORSICHT: NICHT ohne eine Antenne senden. Dadurch wird der Transceiver beschädigt.

1. Halten Sie [⏻] für 1 Sekunde gedrückt, um den Transceiver einzuschalten (ON).
   ⓘ Wenn kein MMSI-Code eingegeben wird, wird „Push [ENT] to Register Your MMSI“ angezeigt.
2. Drehen Sie [VOL/SQL], um die Lautstärke zu regeln.
3. Drücken Sie [VOL/SQL] ein- oder zweimal, um das Fenster „SQL Setting“ zu öffnen, drehen Sie dann [VOL/SQL], um den Squelchpegel einzustellen, bis das Rauschen gerade verschwindet.
4. Wählen Sie einen Kanal.

ⓘ **Informationen**
- Wenn Sie ein Signal empfangen, wird „BUSY“ angezeigt.
- Sie können den Kanal 70 nur für DSC-Übertragungen (digitaler Selektivruf) verwenden.
- Wenn der Punkt „FAV on MIC“ auf „OFF“ eingestellt ist, können Sie alle Kanäle mithilfe der Tasten [▲] oder [▼] am Mikrofon auswählen.

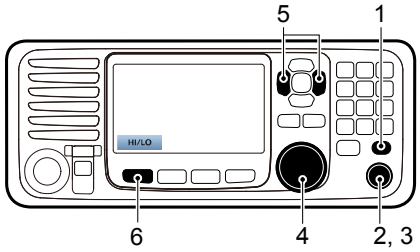
5. Drücken Sie [◀] oder [▶], bis „HI/LO“ im Softwaretasten-Bereich angezeigt wird.
6. Drücken Sie [HI/LO] [–], um eine hohe oder niedrige Ausgangsleistung festzulegen.

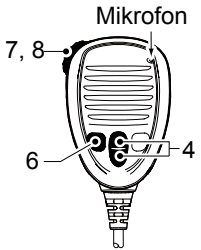
ⓘ **Informationen**
- „25W“ wird angezeigt, wenn die hohe Leistung ausgewählt ist. Wählen Sie die hohe Leistung für eine Kommunikation über längere Entfernungen.
- „1W“ wird angezeigt, wenn die niedrige Leistung ausgewählt ist. Wählen Sie die niedrige Leistung für eine Kommunikation über kürzere Entfernungen.
- Einige Kanäle sind auf die niedrige Leistung beschränkt.

7. Halten Sie zum Senden die Taste [PTT] gedrückt und sprechen Sie mit Ihrer normalen Stimme.
   • „TX“ wird angezeigt.
8. Lassen Sie [PTT] los, um zum Empfang zurückzukehren.

WICHTIG: Um die Verständlichkeit Ihres gesendeten Signals bei der Empfängerstation zu verbessern, warten Sie eine Sekunde nach Beginn des Drückens der [PTT], halten Sie das Mikrofon 5 bis 10 cm vor dem Mund und sprechen Sie mit normaler Sprechlautstärke.

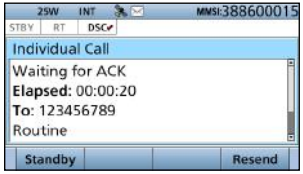
HINWEIS für die Sendezeitbeschränkung (TOT-Funktion): Die TOT-Funktion verhindert kontinuierliches Senden über einen vorgegebenen Zeitraum nach dem Sendebeginn hinaus. 10 Sekunden, bevor die Übertragung abgeschnitten wird, ertönt ein Piepton, um anzuzeigen, dass die Sendung abgebrochen wird, und „TOT“ blinkt im Kanalnamen-Feld. Nachdem die Übertragung abgeschnitten ist, wird 10 Sekunden lang „TIME OUT“ angezeigt. Und Sie können nicht senden, bis „TIME OUT“ verschwindet.





■ DSC-Auftragsmodus

Nach dem Senden oder Empfangen eines DSC-Rufs schaltet der Transceiver auf den DSC-Auftragsmodus.



(Beispiel: Nach dem Senden eines Einzelrufs)

Im Auftragsmodus können Sie den Ruf erneut senden oder eine Bestätigung zur Rufstation senden usw.

HINWEIS: Der Auftragsmodus hat eine Sendezeitbeschränkung (Time-out Timer, TOT-Funktion). Wenn Sie über einen vorgegebenen Zeitraum keine Taste drücken, verlässt der Transceiver automatisch den Auftragsmodus.
Ein Countdown-Alarm ertönt 10 Sekunden, bevor die Sendezeitbeschränkung aktiviert wird.
Kein Countdown-Alarm ertönt, bevor die Sendezeitbeschränkung aktiviert wird.
Sie können die TOT-Funktion im Menü INACTIVITY TIMER einstellen.

Die Standardeinstellungen der Sendezeitbeschränkung:

- Notruf: OFF
- Nichtnotruf: 15 Minuten

◇ Softwaretastenfunktionen

Beim Aufrufen des Auftragsmodus werden die folgenden Funktionen zuerst angezeigt.

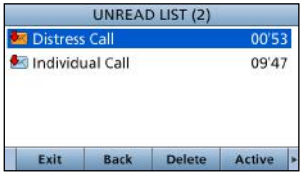
FUNKTION	BESCHREIBUNG
Standby	Zum Löschen des Auftrags und Zurückgehen zum Hauptbildschirm drücken.
Resend	Zum erneuten Senden des Rufs drücken.

Die folgenden Funktionen können je nach dem Ruftyp angezeigt werden.

FUNKTION	BESCHREIBUNG
Cancel	Zum Senden eines Abbruchrufs drücken.
Pause	Zum Pausieren des ‚Call Repeat'-Modus drücken oder den Countdown anhalten.
Resume	Zum Fortsetzen des Countdowns drücken.
Finish	Zum Verlassen des Notrufabbruch-Ausführungsbildschirms drücken.
History	Zum Anzeigen des Notrufverlauf-Bildschirms drücken.
ACK/ ACK (able)	Zum Senden einer Bestätigung ohne jegliche Änderungen drücken.
ACK (Unable)	Zum Senden einer Bestätigung drücken, aber sie können nicht kommunizieren.
ACK (New CH)	Senden Sie eine Bestätigung. Sie können den Sprachkommunikationskanal angeben.

◇ Ungelesen-Liste

Wenn der Transceiver ungelesene DSC-Rufe hat, können Sie zum Menü UNREAD LIST gelangen, indem Sie [Unread List] [—] drücken.



ⓘ Drücken Sie [Active] [—], um zum Auftragsmodus zu gelangen.
ⓘ Drücken Sie [Info] [—], um die Details des ausgewählten Auftrags anzuzeigen.

■ Senden eines Notrufs

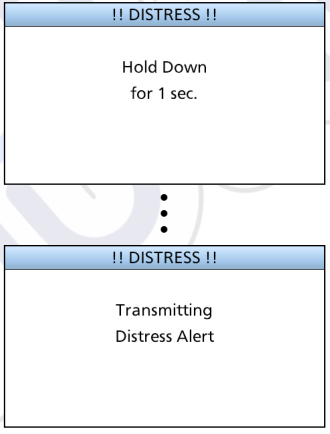
NIEMALS NOTALARME SENDEN, FALLS SICH DAS SCHIFF NICHT TATSÄCHLICH IN NOT BEFINDET. EIN NOTALARM IST NUR ZU SENDEN, WENN UNVERZÜGLICHE HILFE NÖTIG IST.

Sie dürfen nur einen Notruf senden wenn nach Beurteilung des Schiffsführers das Schiff oder eine Person in einer Notlage ist und sofortige Hilfe benötigt.

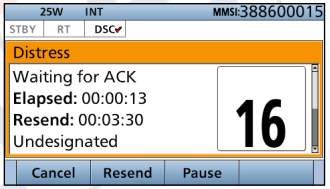
ⓘ Der Notrufkanal (Kanal 70) wird automatisch ausgewählt, um einen Notruf zu senden.

◇ Einfache Alarmierung

1. Vergewissern, dass Sie selbst gerade keinen Notalarm empfangen.
2. Heben Sie die Tastenfeldabdeckung an, und halten Sie dann [DISTRESS] gedrückt, bis „Transmitting“ angezeigt wird, um den Notruf zu senden.
   - Wenn Sie [DISTRESS] gedrückt halten, ertönt der Countdown und sowohl die Tasten als auch die Displayhintergrundbeleuchtung blinken.

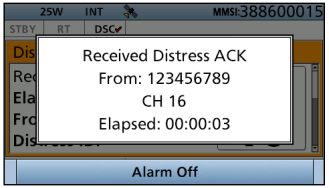


3. Nach dem Senden wird der folgende Bildschirm angezeigt.



- Der Kanal 16 wird automatisch ausgewählt.

4. Wenn die Bestätigung empfangen wird:
   - Der Alarm ertönt.
   - Das folgende Fenster wird angezeigt.



5. Beliebige Taste drücken [Alarm Off] [—].
6. Beliebige Taste drücken [Close Call RCVD Window] [—].
7. Halten Sie [PTT] gedrückt, um Ihre Situation mitzuteilen.
8. Drücken Sie [Standby Mode] [—], um zum Hauptbildschirm zurückzugehen.

■ Senden eines Nichtnotrufs

Kontrollieren Sie, dass der Squelchpegel des Kanals 70 richtig eingestellt ist, um die ordnungsgemäße Funktionsfähigkeit der DSC-Funktion zu sichern.

HINWEIS:
- Für den Ruf wird automatisch der Notrufkanal (Kanal 70) ausgewählt.
- Wenn der Kanal 70 besetzt ist, wartet der Transceiver im Bereitschaftszustand, bis der Kanal frei wird.

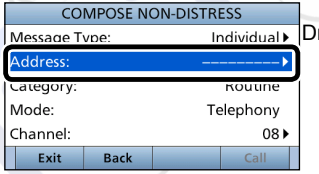
◇ Senden eines einzelnen Rufs

Die Einzelruf-Funktion erlaubt es Ihnen, ein DSC-Signal zu nur einem bestimmten Küstensender oder Schiff zu senden. Warten Sie nach dem Senden auf eine Bestätigung von der Empfangsstation.
Sie können mit Sprache kommunizieren, nachdem die Bestätigung „Able to comply“ erhalten wurde.

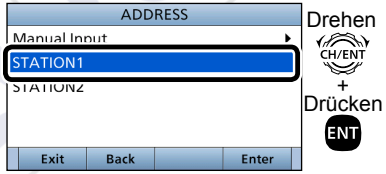
1. Drücken Sie [Compose Other] [—], um den Bildschirm COMPOSE NON-DISTRESS anzuzeigen.

ⓘ Um vom Menübildschirm zu diesem Bildschirm zu gelangen: ([MENU] > **Compose Non-Distress**)

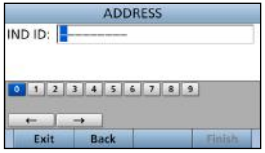
2. Drücken Sie [ENT].



3. Wählen Sie die individuelle Adresse oder „Manual Input“, drücken Sie dann [ENT]. (Beispiel: STATION1)



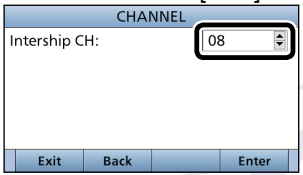
Wenn Sie „Manual Input“ im Schritt 3 auswählen, betätigen Sie das Tastenfeld, um manuell die individuelle ID einzugeben, die Sie rufen möchten.



■ Senden eines Nichtnotrufs (Fortsetzung)

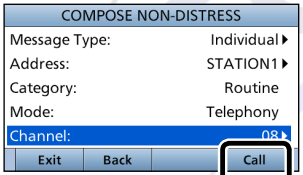
Wenn Sie im Schritt 3 einen Küstensender auswählen, wird der Sprachkanal automatisch vom Küstensender bestimmt. Überspringen Sie deshalb die Schritte 4 und 5 und gehen Sie zum Schritt 6.

4. Wählen Sie „Channel“, drücken Sie dann [ENT].
5. Wählen Sie den Sprachkanal, drücken Sie dann [ENT].



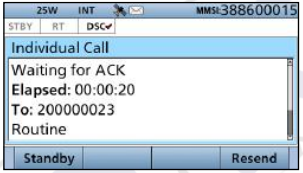
Drehen CH/ENT + Drücken ENT

6 Drücken Sie [Call] (—), um den Einzelruf abzusenden.

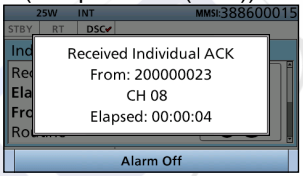


Drücken —

7. Nach dem Senden wird der folgende Bildschirm angezeigt.



8. Wenn Sie die Bestätigung erhalten haben:
   • Der Alarm ertönt.
   • Der folgende Bildschirm wird angezeigt.
   (Beispiel: ACK (Able))



9. Beliebige Taste [Alarm Off] (—) drücken.
10. Beliebige Taste [Close Call RCVD Window] (—) drücken.

Wenn Sie „ACK (Unable)“ im Schritt 8 empfangen, überspringen Sie den Schritt 11 und gehen Sie zum Schritt 12.

11. Halten Sie [PTT] gedrückt, um zu kommunizieren.
12. Drücken Sie [Standby] (—), um zum Hauptbildschirm zurückzugehen.

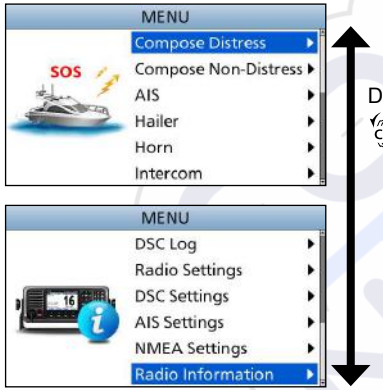
HINWEIS:
Nachdem die Bestätigung empfangen wird:
• Der im Schritt 5 festgelegte Sprachkanal wird ausgewählt.
• Ein anderer Sprachkanal wird ausgewählt, wenn die angerufene Station den Kanal nicht verwenden kann.

Sie können den Menü-Bildschirm verwenden, um selten geänderte Werte oder Funktionen einzustellen.

■ Aufbau

Der Menü-Bildschirm wird in einer Baumstruktur erstellt.
Sie können mit [ENT] zur nächsten Baumebene oder mit [CLR] um eine Ebene zurück gehen.

Um einen Punkt auszuwählen, drehen Sie [CH/ENT].



Compose Distress
Nature of Distress
Position
• Latitude • Longitude • UTC

Compose Non-Distress
Message Type
Address*1
Position*1
• Latitude*1 • Longitude*1 • UTC*1
Category
Mode*1
Channel*1

AIS

Hailer

Horn
Manual Horn
Auto Foghorn
Frequency

Intercom*2
RADIO
SUB UNIT 1, 2, 3

GPS Information

AquaQuake

Configuration
Key Beep
Key Assignment
UTC Offset
Inactivity Timer
• Not DSC Related • DSC Related • Distress Related • RT Related
Speaker
• Internal • Int. and ext.
Noise Cancel
• RX • TX
Power SW from Sub Unit
• All Units • Own Unit

*1 Können möglicherweise nicht angezeigt werden, je nach dem Nachrichtentyp.
*2 Wird angezeigt, wenn das optionale Befehlsmikrofon oder der Befehlskopf an den Transceiver angeschlossen ist.

■ Aufbau (Fortsetzung)

DSC Log
Received Call Log
Transmitted Call Log

Radio Settings
Scan Type*2
Scan Timer*2
Dual/Tri-Watch*2
Channel Group
Call Channel
Voice Scrambler*3
Voice Record
FAV Settings
FAV on MIC
Channel Display

DSC Settings
Position Input*1
Individual ID
Group ID
Auto ACK
CH Auto Switch
DSC Data Output
Alarm Status
• Safety • Routine
• Warning
• Self-Terminate • Discrete
CH 70 SQL Level
Self Check Test

AIS Settings
North Up/COG Up
CPA/TCPA
ID Blocking

NMEA Settings
NMEA0183
• Port 1, Port 2
NMEA2000
• GPS, AIS

Radio Information

*1 Wird nicht angezeigt, wenn gültige GPS-Daten empfangen werden.
*2 In der holländischen Version nicht verwendbar.
*3 Wird nur angezeigt, wenn die Sprachscramblereinheit installiert ist.

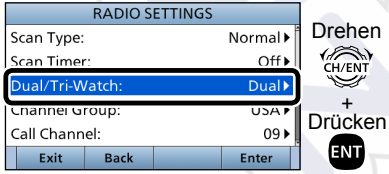
■ Einen Menüpunkt wählen

Befolgen Sie die nachfolgend beschriebenen Verfahren zur Auswahl eines Menüpunkts.

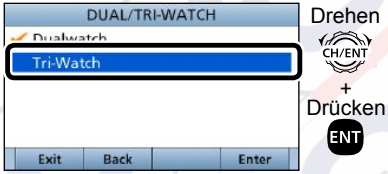
Beispiel: Stellen Sie die Tri-Watch-Funktion ein.

1. Drücken Sie [MENU], um den Bildschirm MENU anzuzeigen.
2. Drehen Sie [CH/ENT], um „Radio Settings“ auszuwählen, drücken Sie dann [ENT].

3. Drehen Sie [CH/ENT], um „Dual/Tri-Watch“ auszuwählen, drücken Sie dann [ENT].



4. Drehen Sie [CH/ENT], um „Tri-Watch“ auszuwählen, und drücken Sie dann [ENT].



- Legt die Tri-Watch-Funktion fest und kehrt dann zum Bildschirm RADIO SETTINGS zurück, nachdem Sie [ENT] gedrückt haben.

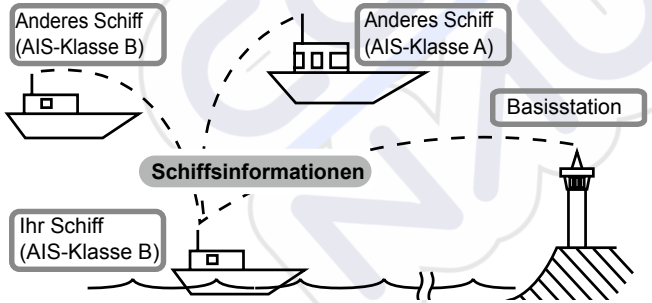
5. Drücken Sie [MENU], um zum Hauptbildschirm zurückzugehen.

6 AIS-EMPFÄNGER

■ Über AIS

Das automatische Identifizierungssystem (AIS) wird primär für das Kollisionsrisikomanagement und die Navigationssicherheit verwendet. Es sendet und empfängt automatisch die Schiffsinformationen, wie zum Beispiel den Schiffsnamen, MMSI-Code, Schiffstyp, die Positionsdaten, Geschwindigkeit, den Kurs, das Ziel und weitere. Die Informationen werden im UKW-Seefunkband zwischen den Schiffen und/oder Basisstationen ausgetauscht. Die Informationen helfen dabei, die anderen Schiffe oder Stationen in der Nähe zu identifizieren, indem die empfangenen Daten auf einem Plotter oder Radarbildschirm angezeigt werden.

HINWEIS für die AIS-Empfänger Funktion:
Da nicht alle Schiffe mit AIS-Sendern ausgestattet sind, sind AIS-Empfänger kein Ersatz für die visuelle Überwachung. Insbesondere während das UKW-Seefunkgerät auf demselben Schiff im selben Frequenzband sendet, können von anderen Schiffen gesendete AIS-Signale unterdrückt und nicht auf dem Bildschirm angezeigt werden.



■ AIS-Klassen

Es gibt 7 Arten von AIS-Stationen, Schiffe, Basisstationen, Such- und Rettungsdienst (SAR), Navigationshilfen (AtoN), Such- und Rettungsdienstsender (AIS-SART), Mann über Bord (MOB) und Seenotpositionsanzeigefunkfeuer-AIS (EPIRB-AIS).

Es gibt 2 Klassen von AIS-Geräten, die auf den Schiffen installiert sind, Klasse A und Klasse B.

Nach der SOLAS-Konvention (Schutz des menschlichen Lebens auf See) müssen alle SOLAS-Schiffe, wie nachfolgend beschrieben, einen AIS-Transponder der Klasse A installiert haben:

- Ab 300 Bruttoregistertonnen, die in internationalen Gewässern unterwegs sind.
- Passagierschiffe, unabhängig von der Größe, die in internationalen Gewässern unterwegs sind.
- Ab 500 Bruttoregistertonnen, die nicht in internationalen Gewässern unterwegs sind.

Ein AIS-Transponder der Klasse B dient der Zusammenarbeit mit den Geräten der Klasse A, hat aber keine Auswirkung auf das Netzwerk der Klasse A.
Viele kommerzielle Schiffe und einige Freizeitschiffe, für die kein Gerät der Klasse A vorgeschrieben ist, wählen die Installation eines Geräts der Klasse B aus, um Unfälle auf See zu vermeiden.

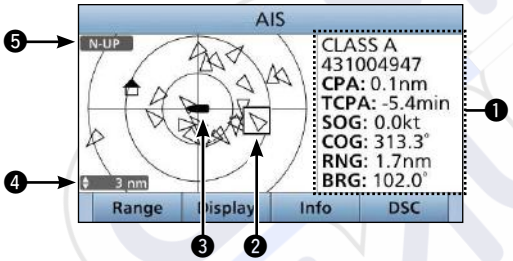
■ Funktionsanzeige

Es gibt drei Arten von Funktionsanzeigen, Plotter, Zielliste und Gefahrenliste. Wählen Sie mithilfe der Taste [Display] den Anzeigetyp aus.

1. Drücken Sie [MENU].
2. Wählen Sie „AIS“, drücken Sie dann [ENT].
   • Der Plotterbildschirm wird angezeigt.

◇ Plotterbildschirm

Wenn das GPS angeschlossen ist und dieses die Signale von einem Satelliten empfängt, zeigt der Plotterbildschirm den Anzeigebereich und die Symbole der AIS-Ziele an.



❶ INFORMATIONEN
Zeigt die Informationen des ausgewählten Ziels an.

❷ ZIELFELD
Zeigt das ausgewählte AIS-Ziel an.
ⓘ Wenn ein Zielfeld angezeigt wird, drücken Sie [ENT], um den Detailbildschirm des ausgewählten AIS-Ziels anzuzeigen.

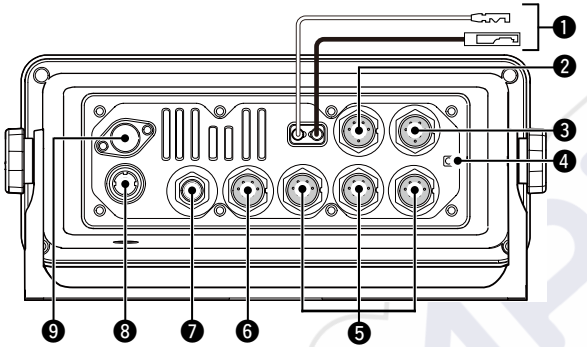
❸ SYMBOL IHRES SCHIFFS
Wird in der Mitte des Bildschirms angezeigt.
ⓘ Wenn „N-UP“ angezeigt wird, weist das Schiffssymbol automatisch in die Richtung, in die Sie steuern, in 45-Grad-Schritten.
ⓘ Wenn „COG-UP“ angezeigt wird, weist das Schiffssymbol ständig nach oben auf dem Plotterbildschirm.
ⓘ Wenn sich Ihr Shiff mit weniger als 2 Knoten bewegt, wird das Symbol „ ● “ angezeigt.

❹ ANZEIGEBEREICH
Zeigt den ausgewählten Anzeigebereich an.
Drücken Sie [Range], um den Anzeigebereich auszuwählen.
ⓘ 0,125, 0,25, 0,5, 0,75, 1,5, 3, 6, 12 und 24 nm (Seemeilen) sind auswählbar.

❺ ANZEIGETYP
Zeigt den ausgewählten Anzeigetyp an. Sie können den Anzeigetyp im Menübildschirm auswählen.
ⓘ Wenn „N-UP“ angezeigt wird, weist die Oberseite des Plotterbildschirms gen Norden.
ⓘ Wenn „COG-UP“ angezeigt wird, stellt die Oberseite des Plotterbildschirms die Richtung dar, in die Ihr Kurs steuert.

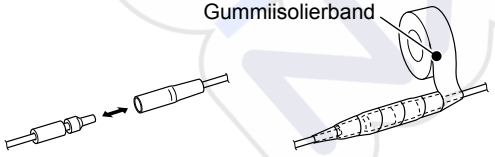
7 ANSCHLÜSSE UND MITGELIEFERTES ZUBEHÖR

■ Anschlüsse



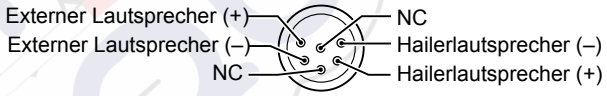
❶ GLEICHSTROMANSCHLUSS
Zum Anschließen einer 13,8-V-Gleichstromversorgung. (+: Rot, –: Schwarz)

VORSICHT: Nach dem Anschluss des Gleichstrom-Versorgungskabels, der NMEA-Leitungen, externen Lautsprecherleitungen und Hailerleitungen dichten Sie den Stecker mit einem Klebeband ab, wie unten dargestellt, um das Eindringen von Wasser in die Verbindung zu verhindern.



❷ MIKROFONANSCHLUSS
Zum Anschließen des mitgelieferten oder eines optionalen Mikrofons HM-205.*
*Nicht verwendbar, wenn das Mikrofon am Anschluss an der Vorderseite angeschlossen ist.

❸ EXTERNER LAUTSPRECHERANSCHLUSS
Zum Anschließen des optionalen HORNLAUTSPRECHERS SP-37.



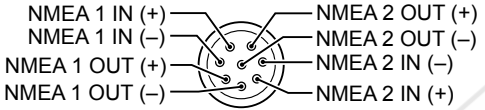
Rückseitenansicht des Transceivers

❹ MASSEANSCHLUSS
Zum Anschließen einer Erdung des Schiffs, um Stromschläge und die auftretenden Störungen von anderen Geräten zu vermeiden. Verwenden Sie eine selbstschneidende Schraube (3 × 6 mm: nicht mitgeliefert).

❺ BEFEHLSMIKROFON-/ BEFEHLSKOPFANSCHLUSS
Zum Anschließen des optionalen Befehlsmikrofons* oder Befehlskopfes.
*Das WANDLERKABEL OPC-2384 wird benötigt.

❻ NMEA 0183 CONNECTORS
- Stellt die Verbindung zu den NMEA-0183-Ausgängen eines PC oder zu den mit dem NMEA-0183-Satzformat DSC- oder DSE-kompatiblen Navigationsgeräten her, um die Positionsdaten von den anderen Schiffen zu empfangen.

- Stellt die Verbindung zu den NMEA-0183-Eingängen eines GPS-Empfängers für die Positionsdaten her.
  - Ein mit den RMC-, GGA-, GNS- oder GLL- und VTG-Sätzen im NMEA-0183-Format kompatibler GPS-Empfänger ist erforderlich. Fragen Sie Ihren Händler nach geeigneten GPS-Empfängern.



Rückseitenansicht des Transceivers

❼ NMEA 2000 CONNECTOR
Stellt die Verbindung zu einem NMEA-2000-Netzwerk her.

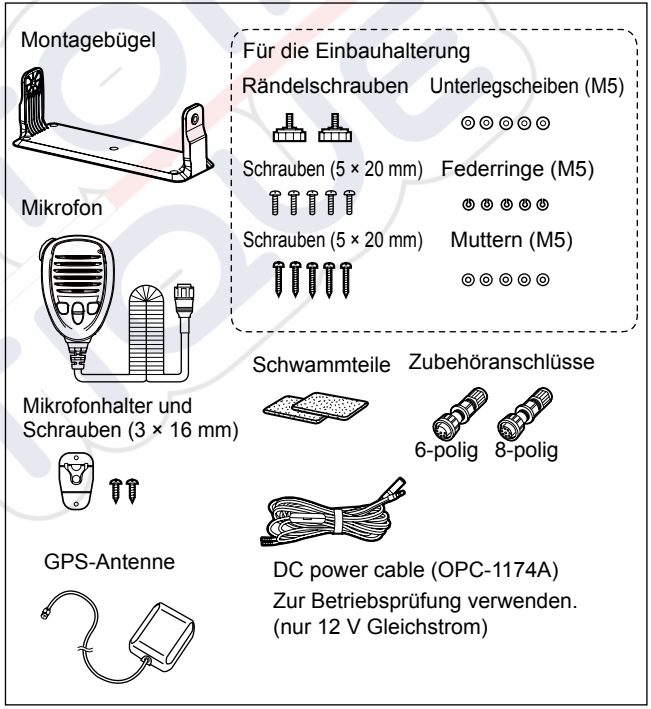
❽ GPS-ANTENNENANSCHLUSS
Zum Anschließen der mitgelieferten GPS-Antenne.

HINWEIS: Achten Sie darauf, dass die GPS-Antenne so angebracht ist, dass sie eine freie Sicht für den Empfang der Signale von den Satelliten hat.

❾ ANTENNENANSCHLUSS
Stellt die Verbindung zu einer Seefunk-VHF-Antenne mit einem PL-259-Stecker her.

VORSICHT: Das Senden ohne eine Antenne kann zu Schäden am Transceiver führen.

■ Mitgeliefertes zubehör



■ Technische Daten

(Gemäß EN 301 025)

Änderungen der technischen Daten jederzeit und ohne Vorankündigung vorbehalten.

◇ Allgemeines

• Frequenzbereich:	TX	156,000 ~ 161,600 MHz
	RX	156,000 ~ 163,425 MHz
		156,525 MHz (CH70/DSC)
• Modus:	FM (16K0G3E), DSC (16K0G2B)	
• Betriebstemperaturbereich:	–20 °C ~ +60 °C	
• Stromaufnahme:	TX hoch (25 W)	6,0 A maximal
	RX Maximaler Ton	8,0 A maximal*
• Stromversorgungsanforderungen:	13,8 V Nenngleichstrom (negative Masse)	
• Antennenimpedanz:	50 Ω Nennwert	
• Abmessungen (ohne vorstehende Teile):	274 (B) × 114 (H) × 121,5 (T) mm	
• Gewicht (ungefähr):	1,5 kg	

*Wenn die Optionen (3 Befehlsmikrofone, Hailerlautsprecher und externer Lautsprecher) angeschlossen sind.

◇ Sender

• Ausgangsleistung:	25 W oder 1 W
• Modulationssystem:	Variable Reaktanz-Frequenzmodulation
• Maximale Frequenz-abweichung:	±5 kHz
• Frequenzfehler:	Weniger als ±0,5 kHz
• Nebenaussendungen:	Weniger als 0,25 µW
• Nachbarkanalleistung:	Mehr als 70 dB
• Tonklirrfaktor:	Weniger als 10 % (bei 60 % Abweichung)
• Restmodulation:	Mehr als 40 dB
• Audiofrequenzbereich:	+1 ~ –3 dB des 6 dB/Oktave-Bereichs von 300 Hz bis 3000 Hz

◇ Empfänger

• Empfindlichkeit:	
FM:	–5 dBµ emf (typisch) (20 dB SINAD)
DSC (CH70):	–3 dBµ emf (typisch) (1% BER)
• Squelchempfindlichkeit:	Weniger als –2 dBµ emf
• Intermodulationsunterdrückung:	
FM:	Mehr als 75 dB
DSC (CH70):	Mehr als 73 dBµ emf (1% BER)
• Störunterdrückung:	
FM:	Mehr als 75 dB
DSC (CH70):	Mehr als 73 dBµ emf (1% BER)
• Nachbarkanalunterdrückung:	
FM:	Mehr als 75 dB
DSC (CH70):	Mehr als 80 dBµ emf (1% BER)
• Ton-Ausgangsleistung:	Mehr als 15 W bei 10 % Verzerrung mit externem Lautsprecher an 4 Ω Last
• Rauschabstand:	Mehr als 40 dB
• Audiofrequenzbereich:	+1 ~ –3 dB des –6 dB/Oktave-Bereichs von 300 Hz bis 3000 Hz

■ Zubehör

◇ Befehlskopf und Kabel

• BEFEHLSKOPF **RC-M600**

Der Befehlskopf mit dem gleichen Bedienfeld wie der Transceiver. Montagebügel, Mikrofon und 10 Meter Anschlusskabel sind im Lieferumfang enthalten.

• STEUERKABEL **OPC-2383***

10 Meter Kabel für den Anschluss des Transceivers und des STEUERKOPFES RC-M600.

*Das gleiche Kabel wie das mit dem RC-M600 mitgelieferte Kabel.

• VERLÄNGERUNGSKABEL **OPC-2377**

10 Meter Verlängerungskabel.

◇ Mikrofon und Kabel

• COMMANDMICV™ **HM-229B/HM-229W**

Externer Mikrofonkontroller. Bietet den optionalen Betrieb über eine Gegensprechanlage. 6 Meter Mikrofonkabel und Montagesockel im Lieferumfang enthalten.

HM-229B: Schwarz
HM-229W: Weiß

• WANDLERKABEL **OPC-2384**

Das Kabel zum Anschließen des Transceivers und des COMMANDMICV™ HM-229.

• MIKROFONVERLÄNGERUNGSKABEL **OPC-1541**

6 Meter Mikrofonverlängerungskabel für das optionale COMMANDMICV™ HM-229. Bis zu zwei OPC-1541 können angeschlossen werden. Die nutzbare Länge beträgt maximal 18 Meter.

• LAUTSPRECHERMIKROFON **HM-205RB**

Lautsprecher und Mikrofon, ausgestattet mit den Tasten [▲]/[▼] (Kanal auf/ab), [H/L], [16/C] und [PTT].

◇ Sonstiges

• HORNLAUTSPRECHER **SP-37**

Der externe Hornlautsprecher. Schließen Sie ihn mit dem im Lieferumfang des Transceivers enthaltenen 6-Pin-Zubehörstecker an.

• KLASSE-B-AIS-TRANSPONDER **MA-510TR**

Zur Übertragung einzelner DSC-Rufe an ausgewählte AIS-Ziele.

• UNTERPUTZKIT **MB-75**

Zur Montage des Transceivers an ein Armaturenbrett.

• GNSS-ANTENNE **UX-241***

Zum Empfang des GPS-Signals.

*Die gleiche GPS-Antenne wie die mit dem Transceiver mitgelieferte Antenne.

• SPRACHSCRAMBLEREINHEIT **UT-112**

Ermöglicht die private Kommunikation. 32 Codes stehen zur Verfügung.

In einigen Ländern nicht erhältlich.

Fragen Sie Ihr Kundendienstzentrum oder den Fachhändler nach den Details der Kommunikation.

ESPAÑOL

Gracias por elegir este producto Icom.
El TRANSCEPTOR DE MARINA VHF IC-M605EURO ha sido diseñado y fabricado con la tecnología y destreza de vanguardia de Icom. Con el debido cuidado, este producto le proporcionará años de funcionamiento sin problemas.

El IC-M605EURO dispone de las funciones DSC para la transmisión y recepción de alerta de socorro, así como las llamadas DSC generales (llamada Individual, llamada a Todos los Barcos, llamada de Grupo, etc.).

IMPORTANTE

LEA TODAS LAS INSTRUCCIONES con cuidado y completamente antes de utilizar el transceptor.
GUARDE ESTE MANUAL DE INSTRUCCIONES —
Este manual de instrucciones contiene instrucciones de funcionamiento importantes para el IC-M605EURO.

Icom no se hace responsable de la destrucción, daños o rendimiento de cualquier equipo Icom o de terceros si su funcionamiento es incorrecto a causa de:
- Fuerza mayor, incluyendo, entre otros, incendios, terremotos, tormentas, inundaciones, relámpagos u otros desastres naturales, disturbios, revueltas, guerras o contaminación radioactiva.
- El uso del transceptor de Icom con cualquier equipo que no haya sido fabricado o aprobado por Icom.

Consulte el manual de instrucciones en inglés del IC-M605EURO para obtener más información sobre las funciones que no están incluidas en este manual básico.

DEFINICIONES EXPLÍCITAS

PALABRA	DEFINICIÓN
⚠¡ADVERTENCIA!	Pueden producirse daños personales, peligro de incendio o choque eléctrico.
PRECAUCIÓN	Se puede dañar el equipo.
NOTA	Recomendado para un uso óptimo. Sin riesgo de daños personales, incendio o choque eléctrico.

LIMPIE EL PANEL DELANTERO A FONDO CON AGUA DULCE tras haberlo expuesto al agua salada y séquelo antes de hacerlo funcionar. De lo contrario, las teclas, interruptores y controladores del panel delantero se volverán inoperables debido a la cristalización de la sal.

NOTA: Si la protección impermeable del panel delantero parece defectuosa, límpiela cuidadosamente con un paño suave y húmedo (agua dulce) y, a continuación, seque antes del uso.
El panel delantero puede perder su protección impermeable si la carcasa o la tapa del conector están agrietados o rotos o si el transceptor ha sufrido una caída.

EN CASO DE EMERGENCIA

Si su embarcación necesite asistencia, póngase en contacto con otros barcos y la Guardia Costera enviando una llamada de Socorro en el Canal 16.

USO DEL CANAL 16
PROCEDIMIENTO DE LLAMADA DE SOCORRO
1. "MAYDAY MAYDAY MAYDAY."
2. "AQUÍ EL ....." (nombre del barco).
3. Diga su indicativo u otras descripciones del barco (Y la ID de 9 dígitos DSC si tiene alguna).
4. "SITUADO EN ....." (posición del barco).
5. Declare la causa de la emergencia y ayuda requerida.
6. Dé cualquier información que pueda facilitar el rescate.

O, transmita su llamada de Socorro utilizando una llamada selectiva digital en el Canal 70.

CÓMO UTILIZAR LA LLAMADA DIGITAL SELECTIVA (Canal 70)
PROCEDIMIENTO DE LLAMADA DE SOCORRO
1. Mientras levando la tapa de de la tecla durante 3 seg. hasta que oiga 3 pitidos cortos convertirse en uno largo.
2. Espere en el Canal 70 un reconocimiento de una estación de la costa.
   • Una vez recibido el acuso de recibo, se seleccionará automáticamente el Canal 16.
3. Pulse y mantenga el [PTT] y transmita la informacion apropiada como se describe a la izquierda.

NOTA DE INSTALACIÓN

Instalación:
La instalación de este equipo debe realizarse de acuerdo con los límites de exposición a campos electromagnéticos recomendados por la CE. (1999/519/EC)

La potencia RF máxima disponible de este dispositivo es de 25 vatios. Para una máxima eficiencia la antena deberá instalarse lo más alto posible y la altura de dicha instalación deberá ser de mínimo 1,76 metros por encima del nivel accesible. En caso de que la antena no se pueda instalar a una altura razonable, el transceptor no deberá operar de forma continua si una persona está en un radio de 1,76 metros de la antena y no operar en caso de que una persona esté tocando la antena.

Se recomienda utilizar una antena con una ganancia máxima de 3 dB. Si se requiere una antena con ganancia más alta, contacte el vendedor o su distribuidor Icom para solucionarlo.

Operación:
La exposición a campos electromagnéticos RF sólo es applicable cuando este dispositivo está transmitiendo. La exposición se reduce naturalmente debido a la naturaleza de los períodos alternativos de recepción y transmisión. Mantenga sus transmisiones al mínimo necesario.

PRECAUCIONES

⚠**¡ADVERTENCIA! NUNCA** conecte el transceptor a una salida de CA. Puede causar un incendio o descargas eléctricas.

⚠**¡AVISO! NUNCA** conecte el transceptor a una fuente de alimentación de más de 16 V CC como, por ejemplo, una batería de 24 V. Esto podría dañar el transceptor.

⚠**¡AVISO! NUNCA** invierta la polaridad del cable de alimentación CC al conectarse a una fuente de alimentación. Esto podría dañar el transceptor.

⚠**¡ADVERTENCIA! NUNCA** corte el cable de alimentación CC entre el enchufe CC de la parte posterior del transceptor y el portafusibles. Si después de cortar se realiza una conexión incorrecta el transceptor podría resultar dañado.

⚠**¡ADVERTENCIA! NUNCA** haga funcionar el radiotransmisor durante una tormenta eléctrica. Podría sufrir una descarga eléctrica, provocar un incendio o dañar el radiotransmisor. Desconecte siempre la fuente de alimentación antes de una tormenta.

⚠**¡ADVERTENCIA! NUNCA** coloque el transceptor en un lugar que pueda afectar al funcionamiento normal de la embarcación o causar lesiones corporales.

PRECAUCIÓN: MANTENGA el transceptor y el micrófono a una distancia mínima de 1 metro de la brújula magnética de navegación de la embarcación.

PRECAUCIÓN: NO utilice ni coloque el transceptor en lugares donde la temperatura sea inferior a –20 °C o superior a 60 °C o en zonas con luz solar directa, como el panel de instrumentos.

PRECAUCIÓN: NO utilice solventes fuertes como la bencina o el alcohol para limpiar el transceptor ya que podrían dañar sus superficies. Si el transceptor se ensucia o se vuelve polvoriento, límpielo con un paño suave y seco.

NUNCA coloque el transceptor en un lugar poco seguro para evitar su uso por personal no autorizado.

¡CUIDADO! El panel trasero del transceptor se calentará cuando opere de forma continua durante largos periodos de tiempo.

¡TENGA CUIDADO! El panel delantero del transceptor cumple con los requisitos IPX8 y el dispositivo HM-229 COMMANDMICV™ opcional cumple con los requisitos IPX7 de protección impermeable*. Sin embargo, en caso de caída del transceptor o del micrófono, o de daños o desgaste en la junta impermeable, no se puede garantizar su impermeabilidad debido a posibles daños en la carcasa o en la junta impermeable.

* Excepto para el conector de alimentación de CC, cables de entrada/salida NMEA y cables de salida AF.

DESECHO

El símbolo de reciclaje tachado en el producto, documentación o embalaje le recuerda que en la Unión Europea, todos los productos eléctricos y electrónicos, baterías y acumuladores (baterías recargables) deben llevarse a puntos de recogida concretos al final de su vida útil. No deseche estos productos con la basura doméstica no clasificada. Deséchelos de acuerdo con las normativas y leyes locales aplicables.

ÍNDICE

NORMAS DE OPERATIVIDAD

◇ Prioridades

- Lea las reglas y regulaciones referentes a la prioridades de llamada y tenga siempre una copia actualizada a mano. Las llamadas de seguridad y de socorro tienen prioridad sobre todas las demás.
- Debe supervisar el Canal 16 cuando no opere en otro canal.
- Las llamadas de socorro falsas o fraudulentas están prohibidas por ley.

◇ Privacidad

- La información oída por casualidad, no siendo el destinatario de la misma, no podrá utilizarse legalmente con ningún fin.
- Está prohibido utilizar un lenguaje no adecuado.

◇ Licencias de radio

(1) LICENCIA DE LA EMISORA DEL BARCO

Quizás requiera de una licencia de emisora de radio en regla antes de utilizar el transceptor. Es ilegal operar una emisora de embarcación sin licencia.

Si necesario, pregunte a su proveedor o a la agencia gubernamental apropiada dónde obtener la licencia. Esta licencia expedida por el gobierno indica la señal de llamada que es la identificación de su embarcación para propósitos radiofónicos.

(2) LICENCIA DE OPERADOR

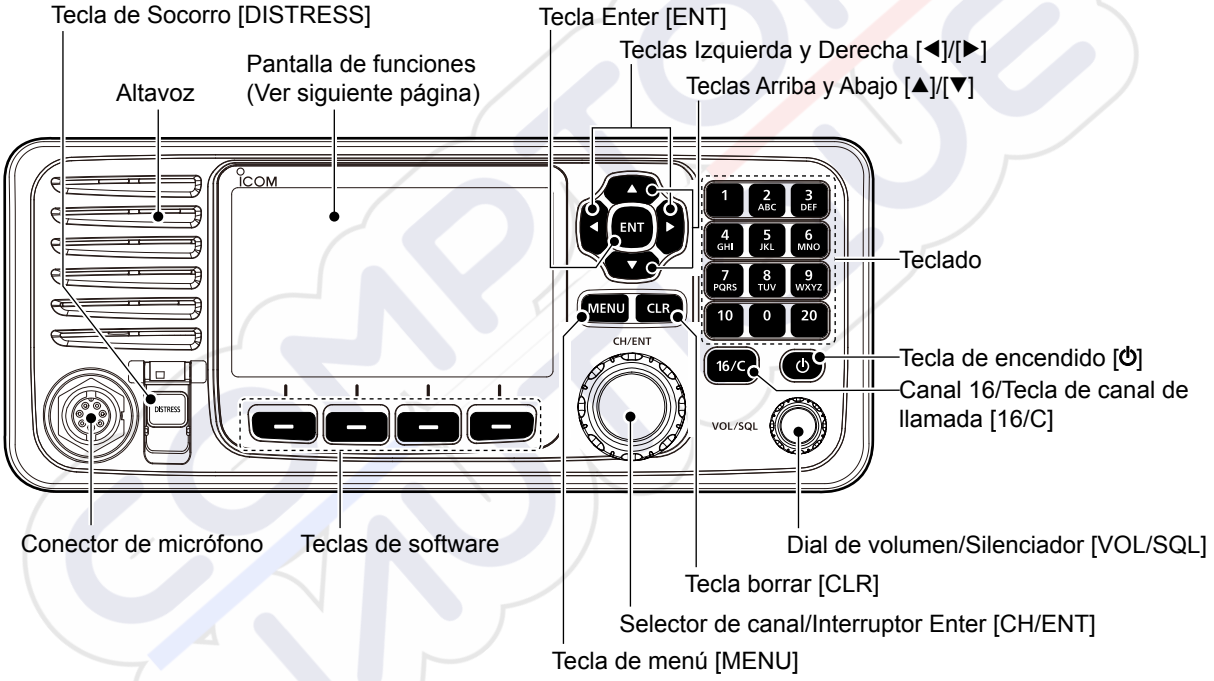
El permiso de operador de radioteléfono restringido es la licencia más utilizada por los operadores de radio de embarcaciones pequeñas cuando no se requiere una radio por motivos de seguridad.

El permiso de operador de radioteléfono restringido deberá colocarse o conservarse cerca del operador. Si se requiere, solo un operador de radio con licencia puede usar un transceptor.

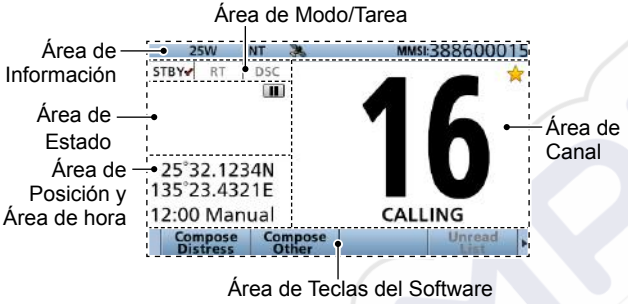
Sin embargo, una persona sin licencia podrá hablar por el transceptor si un operador con licencia inicia, supervisa y finaliza la llamada y realiza las entradas necesarias.

Solo en las embarcaciones en las que es obligatorio un radioteléfono, deberá estar a mano una copia actual con las normas y regulaciones gubernamentales. Sin embargo, aunque no sea obligatorio tener estos documentos a mano, será su responsabilidad tener el adecuado conocimiento de todas las regulaciones y normas aplicables.

■ Panel frontal



■ Pantalla de función (Pantalla principal)



◇ Área de Modo/Tarea

Se muestra el modo actual en el área de Modo y Tarea.

Indicador	Descripción
STBY	Se muestra durante el modo Espera.
RT	Se muestra durante el modo Radioteléfono (RT). ⓘ " RT" se muestra cuando se activa la tarea de modo RT. ⓘ Regresa al modo Espera si no se realiza ninguna operación durante el periodo de tiempo preestablecido.
DSC	Se muestra después de realizar o recibir una llamada LSD.

◇ Área de Canal

El número del canal de funcionamiento seleccionado, el nombre del canal y los siguientes indicadores serán mostrados en el área de Canal.

Indicador	Descripción
★	Se muestra cuando se selecciona un canal Favorito.
CALL	Se muestra cuando se selecciona el canal Llamada manteniendo pulsado [16/C] durante 1 segundo.
DUP	Se muestra al seleccionar un canal Dúplex.
+-	Se muestra cuando la tensión de la batería es baja.

◇ Área de Posición y Hora

ÁREA DE POSICIÓN

Se muestra la posición actual al recibir datos GPS válidos o al introducir manualmente su posición.

Indicador	Descripción
NO POSITION	Se muestra si no hay conectada una antena GPS o si su posición no ha sido introducida manualmente.
??	Parpadea cada 2 segundos en lugar de su posición cuando: • La posición GPS no es válida. • De que transcurran 4 horas desde la entrada manual de su posición. ⓘ Después de 23,5 horas, se muestra "NO POSITION".

ÁREA DE HORA

La hora actual se muestra al recibir datos GPS válidos o al acceder manualmente a la hora.
La información de la fecha se muestra al incluir los formatos de sentencia RMC GPS en la señal GPS.

Indicador	Descripción
NO TIME	Se muestra cuando no hay conectada una antena GPS o cuando no se ha introducido manualmente la hora.
Local	Se muestra al ajustar el desfase de la hora.
Manual	Se muestra al introducir manualmente la hora.
UTC	Se muestra al recibir las sentencias GGA, GLL o GNS desde NMEA 0183.
??	Parpadea cada 2 segundos en lugar de la hora cuando: • La hora actual del GPS no es válida. • De que transcurran 4 horas desde la entrada manual de la hora. ⓘ Después de 23,5 horas, se muestra “NO TIME”.

◇ Área de Estado

El estado actual se muestra en el área de Estado.

Indicador	Descripción
SCAN 16	Se muestra durante un escaneo de Prioridad.*
SCAN	Se muestra durante el escaneo Normal.*
DUAL 16	Se muestra durante la Doble vigía.*
TRI 16	Se muestra durante la Triple vigía.*
RX	Se muestra en el modo Megáfono RX.
	• Se muestra al reproducir o parar el audio grabado. • Se muestra al grabar el audio recibido.

*No utilizable en la versión holandesa.

◇ Área de Información

El código MMSI* y los siguientes indicadores se muestran en el área de Información.

*Se muestra el código ATIS si solamente se introduce el código ATIS en las versiones holandesa y alemana.

Indicador	Descripción
BUSY	Se muestra al recibir una señal o cuando el silenciador está abierto.
TX	Se muestra al transmitir.
25W	Se muestra al seleccionar alta potencia.
1W	Se muestra al seleccionar baja potencia.
INT, USA, ATIS, DSC	Muestra el grupo del canal seleccionado.* *Los grupos de canal seleccionables podrían diferir en función de la versión del transceptor.
	Se muestra cuando el transceptor recibe datos de posición y hora válidos. Parpadeará al recibir datos GPS no válidos.
	• Se muestra cuando existen mensajes LSD sin leer. • Parpadea cuando se recibe un mensaje LSD.
	Se muestra cuando “CH Auto Switch” en Ajustes LSD se establece en cualquier opción que no sea “Accept”.
	Se muestra al activar la función Sirena de niebla automática.

■ Función de las teclas de software

El transceptor dispone de Teclas del Software para varias funciones. La función de las teclas se muestra encima de las Teclas del Software.

◇ Selección de la función de las Teclas del Software*

Cuando se muestre “◀” o “▶” junto al icono de la tecla, pulsar [◀] o [▶] permite desplazarse por las funciones de las Teclas del Software.

Al pulsar una vez [◀] o [▶] se muestran 4 funciones juntas.

* Las funciones de las teclas podrían diferir en función de la versión del transceptor.

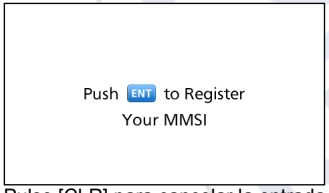
■ Microaltavoz

■ Introducción del código MMSI

En primer lugar, introduzca el código MMSI de 9 dígitos (Identidad de Servicio Móvil Marítimo: auto ID LSD) con la alimentación en posición ON.

Este código inicial solo se puede introducir una vez.
Si su código MMSI ya se encuentra introducido, no es necesario seguir los pasos indicados a continuación.

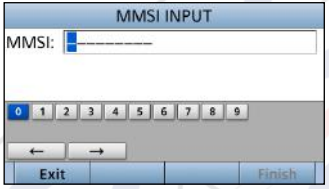
1. Mantenga pulsado [⏻] durante 1 seg. para encender el transceptor.
   • Sonarán tres tonos breves.
   • Se mostrará “Push [ENT] to Register Your MMSI”.
2. Pulse [ENT] para acceder al modo de entrada de código MMSI.



Pulsar ENT

Pulse [CLR] para cancelar la entrada. En este caso, el transceptor mostrará de nuevo “Push [ENT] to Register Your MMSI”.

3. Introduzca su código MMSI de 9 dígitos.



Pulsar 1 2 3 4 5 6 7 8 9 10 0 20 + Girar CH/ENT

4. Una vez introducido el 9.º dígito, pulse [Finish] ▬ para establecer la ID.

Pulsar ▬

5. Para confirmar, vuelva a introducir su código MMSI.

Pulsar 1 2 3 4 5 6 7 8 9 10 0 20 + Girar CH/ENT

6. Una vez introducido el 9.º dígito, pulse [Finish] ▬ para registrar la ID.

Pulsar ▬

• Una vez introducido con éxito su código MMSI, se mostrará la siguiente pantalla.

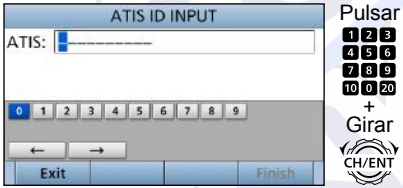
• Seguidamente, se mostrará la pantalla Principal. El código MMSI registrado se mostrará en la parte superior de la pantalla.

■ Introducción del código ATIS (para las versiones en holandés y alemán)

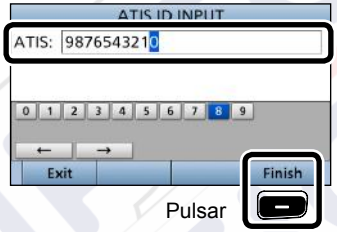
La ID del Sistema de Identificación Automática del Transmisor (ATIS) está compuesta de 10 dígitos. Puede introducir la ID en el elemento “ATIS ID Input” de la pantalla de Menú.

Esta entrada de ID solamente puede realizarse una sola vez.
Si su ID de ATIS ya se encuentra introducido, no es necesario seguir los pasos indicados a continuación.

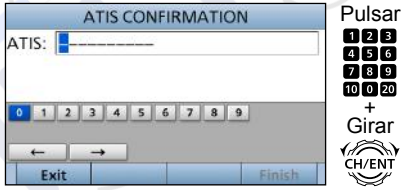
1. Pulse [MENU].
2. Seleccione “ATIS ID Input” y pulse [ENT].
3. Introduzca un código ATIS de 10 dígitos.



4. Una vez introducido el 10.º dígito, pulse [Finish] ▬ para establecer la ID.

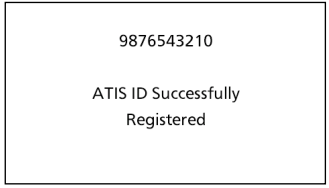


5. Para confirmar, vuelva a introducir su código ATIS.



6. Una vez introducido el 10.º dígito, pulse [Finish] ▬ para registrar la ID.

- Una vez introducido con éxito su código ATIS, se mostrará la siguiente pantalla.



ESPAÑOL

■ Transmisión y recepción

PRECAUCIÓN: NO transmita sin una antena. Dañará el transceptor.

1. Mantenga pulsado [⏻] durante 1 segundo para encender el transceptor.
   ⓘ Si no introduce un código MMSI, se mostrará “Push [ENT] to Register Your MMSI”.
2. Gire [VOL/SQL] para ajustar el nivel de volumen.
3. Pulse [VOL/SQL] una o dos veces para abrir la ventana “SQL Setting” y, a continuación, gire [VOL/SQL] para ajustar el nivel del silenciador hasta que el ruido desaparezca.
4. Seleccione un canal.

ⓘ **Información**
- Al recibir una señal, se muestra “BUSY”.
- Podrá usar el Canal 70 solamente para las transmisiones de Llamada selectiva digital (LSD).
- Si ajusta el elemento “FAV on MIC” en “OFF,” podrá seleccionar todos los canales usando las teclas [▲] o [▼] del micrófono.

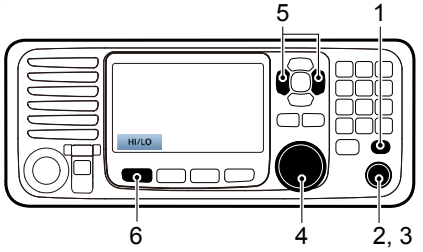
5. Pulse [◀] o [▶] hasta que se muestre “HI/LO” en el área de Teclas del Software.
6. Pulse [HI/LO] [—] para seleccionar una potencia de salida: alta o baja.

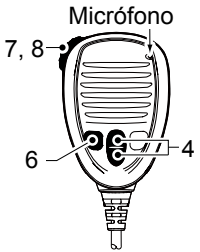
ⓘ **Información**
- Se muestra “25W” al seleccionar alta potencia. Seleccione alta potencia para las comunicaciones de larga distancia.
- “1W” se muestra al seleccionar baja potencia. Seleccione baja potencia para las comunicaciones a corta distancia.
- Algunos canales están restringidos a baja potencia.

7. Mantenga pulsado [PTT] y hable con un nivel de voz normal.
   • Se muestra “TX”.
8. Suelte [PTT] para volver a recibir.

IMPORTANTE: Para maximizar la lectura de la señal transmitida desde una estación receptora, espere un segundo tras pulsar [PTT], y a continuación, mantenga el micrófono a una distancia de entre 5 y 10 cm de la boca y hable con su tono de voz normal.

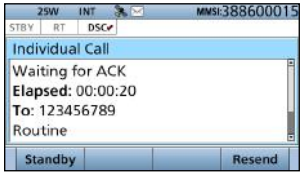
NOTA para la función Temporizador de Tiempo de Espera (TOT):
La función TOT inhibe las transmisiones continuas que superan un periodo preestablecido una vez comienza la transmisión.
10 segundos antes de que se corte la transmisión, sonará un tono para indicar que la transmisión se va a cortar y “TOT” parpadeará en el campo del nombre del canal. Después del corte, se muestra “TIME OUT” durante 10 segundos. Y no podrá transmitir hasta que desaparezca “TIME OUT”.





■ Modo Tarea DSC

Tras enviar o recibir una llamada LSD, el transceptor entra en el modo Tarea LSD.



(Ejemplo: Después de transmitir una llamada Individual)

En el modo Tarea, es posible reenviar la llamada o enviar un acuse de recibo a la emisora del interlocutor, etc.

NOTA: El modo Tarea dispone de una función Temporizador de Tiempo de Espera (TOT). Si no pulsa una tecla durante un periodo de tiempo preestablecido, el transceptor sale automáticamente del modo Tarea.
Una alarma de cuenta atrás suena 10 segundos antes de la activación del TOT. No sonará una alarma de cuenta atrás antes de se que active TOT del Radioteléfono. Puede configurar la función TOT en el menú INACTIVITY TIMER.
Los ajustes predeterminados de la función TOT:
• Llamada de Socorro: OFF
• Llamada de No socorro: 15 minutos

◇ Funciones de las Teclas del Software

Cuando acceda al modo Tarea, las siguientes funciones se mostrarán en primer lugar.

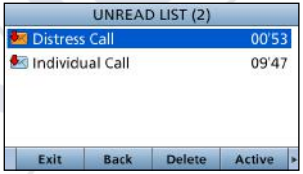
FUNCIÓN	DESCRIPCIÓN
Standby	Pulse para borrar la tarea y regresar a la pantalla Principal.
Resend	Pulse para reenviar la llamada.

En función del tipo de llamada, pueden mostrarse las siguientes funciones.

FUNCIÓN	DESCRIPCIÓN
Cancel	Pulse para enviar una llamada de Cancelación.
Pause	Pulse para pausar el modo 'Repetición de llamada' o pausar la cuenta atrás.
Resume	Pulse para reanudar la cuenta atrás.
Finish	Pulse para salir de la pantalla de declaración de cancelación de Socorro.
History	Pulse para mostrar la pantalla del historial de llamadas de Socorro.
ACK/ ACK (able)	Pulse para enviar un acuse de recibo sin realizar ningún cambio.
ACK (Unable)	Pulse para enviar un acuse de recibo; no podrá establecer una comunicación.
ACK (New CH)	Envíe un acuse de recibo. Puede especificar el canal Comunicación de voz.

◇ Lista de no leídos

Si el transceptor tiene llamadas LSD no leídas, podrá acceder al menú UNREAD LIST pulsando [Unread List] [—].



ⓘ Pulse [Active] [—] para acceder al modo Tarea.
ⓘ Pulse [Info] [—] para visualizar los detalles de la tarea seleccionada.

ESPAÑOL

■ Cómo enviar una llamada de Socorro

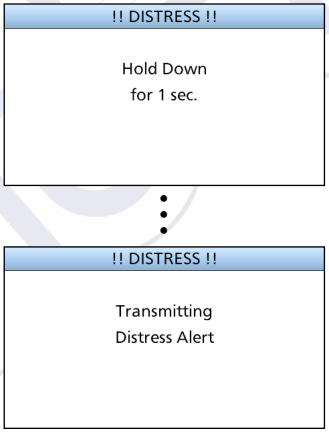
NUNCA REALICE UNA LLAMADA DE SOCORRO SI SU BARCO O UNA PERSONA NO ESTÁ EN UNA EMERGENCIA. LA LLAMADA DE EMERGENCIA ÚNICAMENTE SE DEBE REALIZAR CUANDO SE NECESITA AYUDA INMEDIATA.

Solo debe efectuarse una llamada de Socorro si, según la opinión del Capitán, la embarcación o una persona requieren asistencia inmediata.

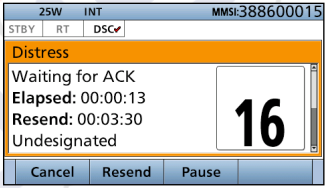
ⓘ Al enviar una llamada de Socorro, el canal de emergencia (Canal 70) se selecciona automáticamente.

◇ Llamada simple

1. Compruebe que ninguna llamada de Socorro esté siendo recibida.
2. Levante la tapa de la tecla y, seguidamente, mantenga pulsado [DISTRESS] hasta visualizar "Transmitting" para enviar la llamada de Socorro.
   - Mientras mantiene pulsado [DISTRESS], la cuenta atrás emite un tono y tanto la luz de fondo de la visualización como de la tecla parpadean.



3. Tras el envío, se mostrará la siguiente pantalla.



   - El Canal 16 es seleccionado automáticamente.
4. Al recibir el acuse de recibo:
   - Sonará la alarma.
   - Se mostrará la siguiente ventana.

5. Pulse [Alarm Off] [—].
6. Pulse [Close Call RCVD Window] [—].
7. Mantenga pulsado [PTT] para anunciar su situación.
8. Pulse [Standby Mode] [—] para volver a la pantalla Principal.

■ Cómo enviar una llamada de No Socorro

Para asegurar el funcionamiento correcto de la función LSD, confirme que ha ajustado correctamente el nivel del silenciador del Canal 70.

NOTA:
- El canal de emergencia (Canal 70) se selecciona automáticamente para las llamadas.
- Si el Canal 70 está ocupado, el transceptor espera hasta que el canal se libere.

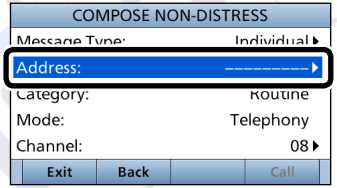
◇ Llamada Individual

La función de llamada Individual permite transmitir una señal LSD a una estación costera o embarcación específicas. Tras la transmisión, espere el acuse de recibo de la estación receptora.
Una vez recibido el acuse de recibo, se podrá comunicar por voz 'ACK (Able)'.

1. Pulse [Compose Other] [−] para visualizar la pantalla COMPOSE NON-DISTRESS.

Pulsar [−]

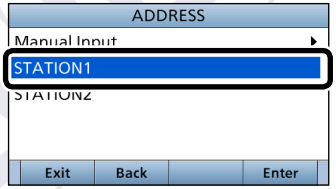
ⓘ Para mostrar la pantalla desde la pantalla Menú:
([MENU] > **Compose Non-Distress**)



Pulsar [ENT]

2. Pulse [ENT].

3. Seleccione la dirección individual o "Manual Input" y, a continuación, pulse [ENT].



Girar [CH/ENT] + Pulsar [ENT]

(Ejemplo: STATION1)

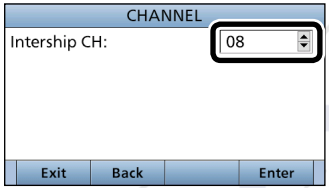
Si selecciona "Manual Input" en el paso 3, presione el teclado para introducir manualmente la ID individual a la que desee llamar.

ESPAÑOL

■ Cómo enviar una llamada de No Socorro (Continuación)

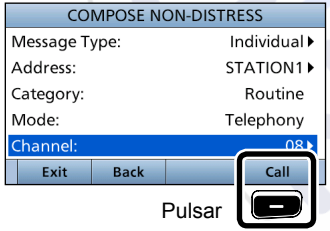
Cuando seleccione una emisora costera en el paso 3, la emisora costera especificará automáticamente el canal de voz. Por lo tanto, omita los pasos 4 y 5 y vaya al paso 6.

4. Seleccione “Channel” y, a continuación, pulse [ENT].
5. Seleccione el canal de voz y, a continuación, pulse [ENT].



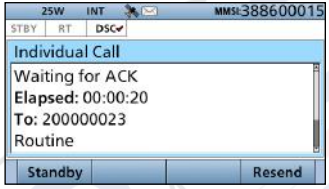
Girar CH/ENT + Pulsar ENT

6 Pulse [Call] (—) para enviar la llamada Individual.

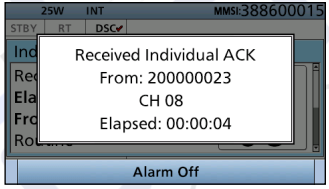


Pulsar (—)

7. Tras el envío, se mostrará la siguiente pantalla.



8. Al recibir el acuso de recibo:
   • Sonará la alarma.
   • Se mostrará la siguiente pantalla. (Ejemplo: ACK (Able))



9. Pulse [Alarm Off] (—).
10. Pulse [Close Call RCVD Window] (—).

Cuando reciba “ACK (Unable)” en el paso 8, omita el paso 11 y vaya al paso 12.

11. Mantenga pulsado [PTT] para comunicarse.
12. Pulse [Standby] (—) para regresar a la pantalla Principal.

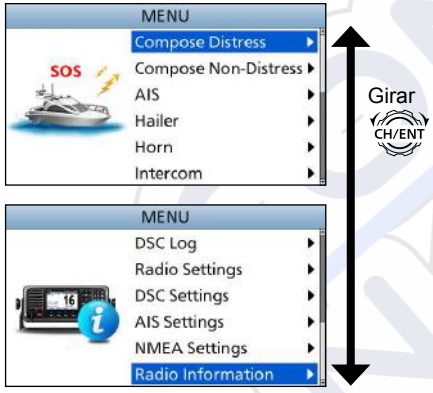
NOTA:
Tras recibir el acuse de recibo:
- Se seleccionará el canal de voz indicado en el paso 5.
- Si la emisora a la que ha llamado no puede utilizar el canal, se seleccionará un canal de voz distinto.

Se puede utilizar la pantalla de Menú para configurar los valores que no suelen cambiarse y ajustar las funciones.

■ Estructura

La pantalla de Menú tiene una estructura de árbol.
Puede ir al siguiente nivel pulsando [ENT] o retroceder un nivel pulsando [CLR].

Para seleccionar un elemento, gire [CH/ENT].



Compose Distress
Nature of Distress
Position
• Latitude • Longitude • UTC

Compose Non-Distress
Message Type
Address*1
Position*1
• Latitude*1 • Longitude*1 • UTC*1
Category
Mode*1
Channel*1

AIS

Hailer

Horn
Manual Horn
Auto Foghorn
Frequency

Intercom*2
RADIO
SUB UNIT 1, 2, 3

GPS Information

AquaQuake

Configuration
Key Beep
Key Assignment
UTC Offset
Inactivity Timer
• Not DSC Related • DSC Related • Distress Related • RT Related
Speaker
• Internal • Int. and ext.
Noise Cancel
• RX • TX
Power SW from Sub Unit
• All Units • Own Unit

*1 Puede que no se visualicen según el tipo de mensaje.
*2 Se muestra al conectar al transceptor el micrófono de comando o el cabezal de comando opcionales.

■ Estructura (Continuación)

DSC Log
Received Call Log
Transmitted Call Log

Radio Settings
Scan Type*2
Scan Timer*2
Dual/Tri-Watch*2
Channel Group
Call Channel
Voice Scrambler*3
Voice Record
FAV Settings
FAV on MIC
Channel Display

DSC Settings
Position Input*1
Individual ID
Group ID
Auto ACK
CH Auto Switch
DSC Data Output
Alarm Status
• Safety • Routine
• Warning
• Self-Terminate • Discrete
CH 70 SQL Level
Self Check Test

AIS Settings
North Up/COG Up
CPA/TCPA
ID Blocking

NMEA Settings
NMEA0183
• Port 1, Port 2
NMEA2000
• GPS, AIS

Radio Information

*1 No se muestra al recibir datos GPS válidos.
*2 No utilizable en la versión holandesa.
*3 Se muestra solamente al instalar la unidad del codificador.

■ Cómo seleccionar un elemento del Menú

Para seleccionar un elemento del Menú, siga el procedimiento descrito a continuación.

Ejemplo: Ajuste la función de Triple vigía.

1. Pulse [MENU] para mostrar la pantalla MENU.
2. Gire [CH/ENT] para seleccionar “Radio Settings” y, a continuación, pulse [ENT].

Girar CH/ENT + Pulsar ENT

3. Gire [CH/ENT] para seleccionar “Dual/Tri-Watch” y, a continuación, pulse [ENT].

Girar CH/ENT + Pulsar ENT

4. Gire [CH/ENT] para seleccionar “Tri-Watch” y, a continuación, pulse [ENT].

Girar CH/ENT + Pulsar ENT

- Establece la función Triple vigía y, a continuación, regresa a la pantalla RADIO SETTINGS después de pulsar [ENT].

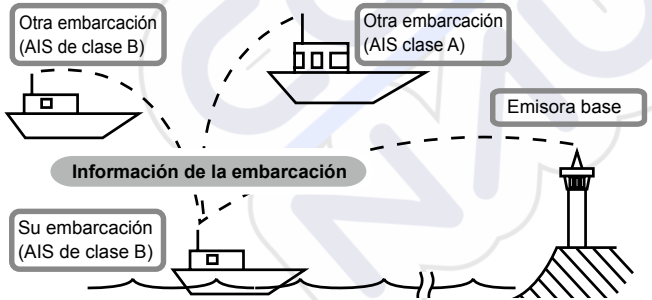
5. Pulse [MENU] para volver a la pantalla Principal.

6 RECEPTOR AIS

■ Acerca de AIS

El Sistema de Identificación Automática (AIS) se usa principalmente para la gestión de riesgos de colisión y la seguridad de la navegación. Transmite y recibe automáticamente información de la embarcación como, por ejemplo, el nombre de la embarcación, el código MMSI, el tipo de embarcación, los datos de posición, la velocidad, el rumbo, el destino y mucho más. La información se intercambia entre las embarcaciones y/o emisoras base de la banda móvil marítima VHF. La información ayuda a identificar otras embarcaciones o emisoras cercanas mostrando los datos recibidos en un trazador o pantalla de radar.

NOTA para la función receptor AIS:
No todas las embarcaciones están equipadas con transmisores AIS, por lo que los receptores AIS no sustituyen al monitoreo visual. Especialmente mientras el transceptor marino VHF transmite en la misma banda de frecuencia en el mismo barco, las señales AIS transmitidas por otros barcos pueden suprimirse y no mostrarse en la pantalla.



■ Clases de AIS

Existen 7 tipos de emisoras AIS: embarcaciones, emisoras base, Búsqueda y Rescate (SAR), Ayudas a la Navegación (AtoN), Transmisor de Búsqueda y Rescate (AIS-SART), Hombre al Agua (MOB) y Radiobalizas de Localización de Siniestros AIS (EPIRB-AIS).

Existen 2 clases de unidades AIS instaladas en las embarcaciones: clase A y clase B.

La convención Seguridad de la Vida Humana en el Mar (SOLAS) declara que todas las embarcaciones, según se describen a continuación, deben instalar un transpondedor AIS de clase A:

- Más de 300 toneladas brutas que realicen viajes internacionales.
- Embarcaciones de pasajeros, sin importar el tamaño, que realicen viajes internacionales.
- Más de 500 toneladas brutas que no realicen en viajes internacionales.

Los transpondedores AIS de clase B están diseñados para ser interoperables con las unidades de clase A, sin embargo, no impactarán en la red de clase A.
Muchas embarcaciones comerciales y algunos barcos de recreo no clasificados como en necesidad de una unidad de clase A, eligen instalar una unidad de clase B para evitar accidentes en el mar.

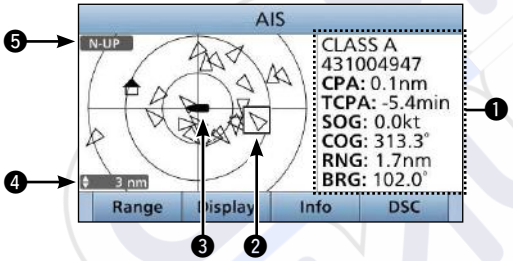
■ Visualización de funciones

Hay 3 tipos de visualización de funciones: trazador, lista de objetivos y lista de peligros. Seleccione el tipo de visualización usando la tecla [Display].

1. Pulse [MENU].
2. Seleccione “AIS” y, a continuación, pulse [ENT].
   • Aparecerá la pantalla Trazador.

◇ Pantalla Trazador

Si el GPS está conectado y recibe señales desde un satélite, la pantalla del trazador mostrará la gama de visualizaciones y los iconos de los objetivos de AIS.



❶ INFORMACIÓN
Muestra la información del objetivo seleccionado.

❷ CUADRO OBJETIVO
Muestra el objetivo AIS seleccionado.
ⓘ Cuando visualice un cuadro objetivo, pulse [ENT] para mostrar la pantalla de detalles del objetivo AIS seleccionado.

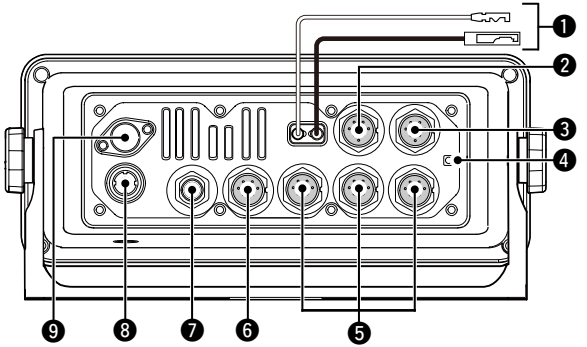
❸ ICONO DE SU EMBARCACIÓN
Mostrado en el centro de la pantalla.
ⓘ Cuando se muestra “N-UP”, el icono de la embarcación apunta automáticamente en la dirección a la que se dirige en pasos de 45 grados.
ⓘ Cuando se muestra “COG-UP”, el icono de la embarcación apunta constantemente hacia la parte superior de la pantalla del trazador.
ⓘ Si su embarcación se desplaza a menos de 2 nudos, se mostrará el icono “ ● ”.

❹ RANGO DE VISUALIZACIÓN
Muestra el rango de visualización seleccionado.
Pulse [Range] para seleccionar el rango de visualización.
ⓘ Podrá seleccionar 0,125, 0,25, 0,5, 0,75, 1,5, 3, 6, 12, 24 nm (millas náuticas).

❺ TIPO DE VISUALIZACIÓN
Muestra el tipo de visualización seleccionado. Puede seleccionar el tipo de visualización desde la pantalla del menú.
ⓘ Cuando se muestra “N-UP”, la parte superior de la pantalla del trazador representa el norte.
ⓘ Cuando se muestra “COG-UP”, la parte superior de la pantalla del trazador representa la dirección a la que se dirige.

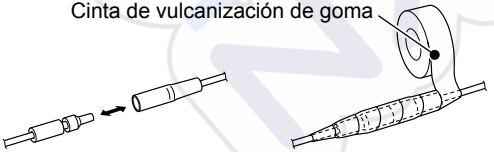
CONEXIONES Y ACCESORIOS SUMINISTRADOS

■ Conexiones



❶ CONECTOR DE ALIMENTACIÓN CC
Se conecta a una fuente de alimentación de CC de 13,8 V. (+: Rojo, –: Negro)

PRECAUCIÓN: Tras conectar el cable de alimentación CC, los cables NMEA, los cables del altavoz externo y los cables del megáfono, cubra el conector y los cables con cinta adhesiva, tal como se muestra a continuación, para impedir la entrada de agua en la conexión.



❷ CONECTOR DEL MICRÓFONO
Se conecta el micrófono HM-205 suministrado u opcional.*
*No utilizable al conectar el micrófono al conector en el panel delantero.

❸ CONECTOR DE ALTAVOZ EXTERNO
Conecta el altavoz de la bocina SP-37 OPCIONAL.

Vista del panel posterior del transceptor

❹ TERMINAL DE TIERRA
Se conecta a la toma a tierra de una embarcación para evitar descargas eléctricas e interferencias de otros equipos. Use un tornillo autorroscable (3 × 6 mm: no suministrado).

❺ CONECTOR DE MICRÓFONO DE COMANDO/ CABEZAL DE COMANDO
Conecta el micrófono de comando* o el cabezal de comando opcionales.
*Es necesario un cable de conversión OPC-2384.

❻ CONECTORES NMEA 0183

- Se conecta a las líneas de salida NMEA 0183 de un PC o formato de sentencia LSD NMEA 0183 o equipos de navegación compatibles con DSE para recibir los datos de posición de otras embarcaciones.
- Se conecta a las líneas de entrada NMEA 0183 de un receptor GPS para los datos de posición.
  - Es necesario un receptor GPS compatible con NMEA 0183 formato RMC, GGA, GNS o GLL y sentencias VTG. Solicite información sobre los receptores GPS más adecuados a su distribuidor.

❼ CONECTOR NMEA 2000

Se conecta a una red NMEA 2000.

Vista del panel posterior del transceptor

❽ CONECTOR DE ANTENA GPS

Se conecta a la antena GPS suministrada.

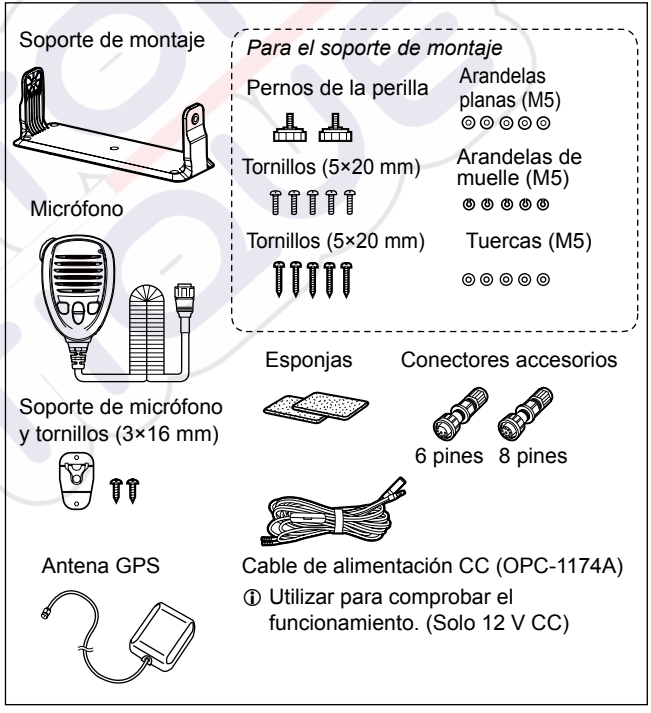
NOTA: Asegúrese de que la antena GPS esté colocada en una posición en la que tenga una vista clara para recibir señales desde los satélites.

❾ CONECTOR DE ANTENA

Se conecta a una antena marítima VHF con un conector PL-259.

PRECAUCIÓN: Transmitir sin una antena podría dañar el transceptor.

■ Accesorios suministrados



ESPAÑOL

■ Especificaciones

(En conformidad con EN301 025)

Todas las especificaciones están sujetas a cambio sin previa notificación ni obligación.

◇ General

- Rango de frecuencia: TX 156,000 ~ 161,600 MHz
  RX 156,000 ~ 163,425 MHz
  156,525 MHz (CH70/LSD)
- Modo: FM (16K0G3E), LSD (16K0G2B)
- Rango de temperatura de uso: –20 °C ~ +60 °C
- Consumo de corriente: TX alto (25 W) 6,0 A máximo
  RX Audio máximo 8,0 A máximo*
- Requisitos para la fuente de alimentación: 13,8 V CC nominal (masa negativa)
- Impedancia de la antena: 50 Ω nominal
- Dimensiones (proyecciones no incluidas): 274 (An.) × 114 (Al.) × 121,5 (Pr.) mm
- Peso (aproximado): 1,5 kg

*Al conectar los accesorios opcionales (3 micrófonos de comando, altavoz de megáfono y altavoz externo).

◇ Transmisor

- Potencia de salida: 25 W o 1 W
- Sistema de modulación: Modulación variable de frecuencia de reactancia
- Desviación de frecuencia máxima: ±5 kHz
- Error de frecuencia: Menos de ±0,5 kHz
- Emisiones espurias: Menos de 0,25 µW
- Potencia del canal adyacente: Más de 70 dB
- Distorsión armónica de audio: Menos del 10 % (en desviación del 60 %)
- Modulación residual: Más de 40 dB
- Respuesta de frecuencia de audio: +1 ~ –3 dB de 6 dB/gama de octavas desde 300 Hz a 3.000 Hz

◇ Receptor

- Sensibilidad:
  FM: –5 dBµ emf (típico) (20 dB SINAD)
  LSD (CH70): –3 dBµ emf (típico) (1 % BER)
- Sensibilidad del silenciador: Menos de –2 dBµ emf
- Intermodulación:
  FM: Más de 75 dB
  LSD (CH70): Más de 73 dBµ emf (1 % BER)
- Respuesta espúrea:
  FM: Más de 75 dB
  LSD (CH70): Más de 73 dBµ emf (1 % BER)
- Selectividad del canal adyacente:
  FM: Más de 75 dB
  LSD (CH70): Más de 80 dBµ emf (1 % BER)
- Potencia de salida de audio: Más de 15 W a una distorsión del 10 % en una carga de 4 Ω
- Radioaficionado y ruido: Más de 40 dB
- Respuesta de frecuencia de audio: +1 ~ –3 dB de –6 dB/gama de octavas desde 300 Hz a 3.000 Hz

■ Opciones

◇ Cabezal de comando y cables

• CABEZAL DE COMANDO RC-M600
El cabezal de comando con el mismo panel delantero que el transceptor. Soporte de montaje, micrófono y cable de conexión de 10 metros (32,8 pies) incluidos.

• CABLE DE CONTROL OPC-2383*
Cable de 10 metros (32,8 pies) para conectar el transceptor y el CABEZAL DE COMANDO RC-M600.
*El mismo cable que el cable suministrado con RC-M600.

• CABLE DE EXTENSIÓN OPC-2377
Cable de extensión de 10 metros (32,8 pies).

◇ Micrófono y cables

• HM-229B/HM-229W COMMANDMICV™
Controlador de tipo micrófono externo. Proporciona un funcionamiento interfono opcional. Cable de micrófono de 6 metros (20 pies) y base de montaje incluidos.

HM-229B: Negro
HM-229W: Blanco

• CABLE DE CONVERSIÓN OPC-2384
El cable conecta el transceptor y HM-229 COMMANDMICV™.

• CABLE DE EXTENSIÓN DEL MICRÓFONO OPC-1541
Cable de extensión del micrófono de 6 metros (20 pies) para el HM-229 COMMANDMICV™ opcional. Pueden conectarse hasta dos OPC-1541. La longitud usable es de un máximo de 18 metros (60 pies).

• MICRÓFONO DEL ALTAVOZ HM-205RB
Equipado con [▲]/[▼] (subir/bajar canal), [H/L], teclas [16/C] y [PTT], un altavoz y un micrófono.

◇ Otros

• ALTAVOZ DE LA BOCINA SP-37
El altavoz de la bocina externo. Se conecta usando el conector accesorio de 6 pines suministrado con el transceptor.

• TRANSPONDEDOR AIS DE CLASE B MA-510TR
Para transmitir llamadas LSD individuales a objetivos AIS seleccionados.

• KIT DE MONTAJE ENRASADO MB-75
Para montar el transceptor en un panel.

• ANTENA GNSS UX-241*
Para la recepción de la señal GPS.
*La misma antena GPS que la antena suministrada con el transceptor.

• UNIDAD DEL CODIFICADOR DE VOZ UT-112
Asegura la privacidad de las comunicaciones.
Hay disponibles 32 códigos.
No disponible en algunos países.
Solicite a su centro de servicio o distribuidor técnico los detalles de instalación.

FRANÇAIS

Merci d'avoir choisi ce produit ICOM. Cet appareil a été conçu et fabriqué avec le meilleur de la technologie et du savoir-faire Icom. Avec un bon entretien, ce produit devrait vous procurer des années de fonctionnement sans problèmes.

Le IC-M605EURO dispose des fonctions ASN pourla transmission et la réception d'alerte de détresse et desappels ASN généraux (appel Individuel, appel à tous les navires, appel de groupe, etc.).

IMPORTANT

LISEZ TOUTES LES INSTRUCTIONS attentivement et intégralement avant d'utiliser l'émetteur-récepteur.

CONSERVEZ CE MANUAL INSTRUCTIONS — Ce manuel d'instructions contient des instructions d'utilisation importantes pour le IC-M605EURO.

Icom n'est pas responsable de la destruction, de la détérioration ou des performances d'un équipement Icom ou non-Icom, si le dysfonctionnement survient à cause de :

- Force majeure, sans toutefois s'y limiter, les incendies, tremblements de terre, tempêtes, inondations, la foudre, d'autres catastrophes naturelles, perturbations, émeutes, guerre, ou contamination radioactive.
- L'utilisation de l'émetteur-récepteur Icom avec tout équipement non fabriqué ou approuvé par Icom.

Consultez le manuel d'instruction en anglais du IC-M605EURO pour des détails concernant les fonctions qui ne se trouvent pas dans ce manuel de base.

DÉFINITIONS EXPLICITES

TERME	DÉFINITION
⚠**AVERTISSEMENT!**	Risque de blessures corporelles, d'incendie ou de choc électrique.
MISE EN GARDE	Risque de dommages a l'appareil.
NOTE	Recommandé pour une utilisation optimale. Aucun risque de blessures corporelles, d'incendie ni de choc électrique.

NETTOYER SOIGNEUSEMENT LE PANNEAU FRONTAL AVEC DE L'EAU DOUCE après toute exposition à l'eau de mer et sécher l'appareil avant toute nouvelle utilisation. Dans le cas contraire, les touches, les commutateurs et les contrôleurs du panneau avant, peuvent devenir inutilisable en raison d'une cristallisation du sel.

REMARQUE : Si la protection étanche du panneau frontal semble défectueuse, la nettoyer soigneusement avec un tissu doux et humide (d'eau douce), puis la sécher avant de l'utiliser.
Le panneau frontal risque de perdre sa protection étanche si le boîtier, ou le couvercle du connecteur est fêlé ou cassé, ou en cas de chute de l'émetteur-récepteur.

EN CAS D'URGENCE

Si votre navire a besoin d'aide, contactez d'autres navires et les Garde-côtes en envoyant un Appel de détresse sur le Canal 16.

UTILISATION DU CANAL 16
PROCÉDURE D'APPEL DE DÉTRESSE
1. "MAYDAY MAYDAY MAYDAY."
2. "ICI….....” (nom du navire)
3. Indicatif d’appel ou autre indication d’identité du navire (ET Identifiant ASN á 9 chiffres, le cas échéant).
4. "SITUÉ PAR……..." (position du navire)
5. Nature de la détresse et assistance demandée.
6. Toute autre information susceptible de faciliter les secours.

Ou, transmettez votre Appel de détresse en utilisant l'appel sélectif numérique sur le Canal 70.

UTILISATION DE L'APPEL SÉLECTIF NUMÉRIQUE (Canal 70)
PROCÉDURE POUR UN APPEL DE DÉTRESSE
1. Tout en se soulevant le protège-touche, maintenez [DISTRESS] enfoncé pendant 3 secondes jusqu'à ce que vous entendiez 3 signaux sonores courts puis un signal sonore long.
2. Attendez une réponse d'une station côtière sur le Canal 70.
   • Après avoir reçu la réponse, le Canal 16 est automatiquement sélectionné.
3. Maintenez [PTT] enfoncé, puis transmettez les informations appropriées comme indiqué à gauche.

REMARQUE SUR L’INSTALLATION

Installation :
L'installation de cet appareil doit être réalisée dans le strict respect des limites maximales recommandées CE d'exposition aux champs électromagnétiques. (1999/519/CE)

La puissance RF maximale disponible sur cet appareil est de 25 watts. Pour une efficacité maximale, installer l'antenne aussi haut que possible et à au moins 1,76 mètre au dessus de tout emplacement accessible. En cas d'impossibilite d'installer l'antenne à une hauteur raisonnable, il faut veiller à ne pas utiliser l'émetteur en continu pendant de longues périodes en cas de présence humaine a moins de 1,76 mètre de distance de l'antenne et à ne pas du tout utiliser l'émetteur des lors qu'une personne touche l'antenne.

Il est recommandé d'utiliser une antenne dont le gain n'excède pas 3 dB. S'il s'avère nécessaire d'utiliser une antenne avec un gain plus élevé, consulter un distributeur Icom pour d'autres recommandations d'installation.

Utilisation :
L'exposition au champ électromagnétique RF n'intervient qu'en mode émission de l'appareil. Cette exposition est naturellement réduite en raison de l'alternance entre les modes émission et réception. Veiller à réduire au minimum la durée des phases d'émission.

PRÉCAUTIONS

⚠**AVERTISSEMENT ! NE JAMAIS** relier l'émetteur-récepteur à une prise CA. This may pose a fire hazard or result in an electric shock.

⚠**AVERTISSEMENT ! NE JAMAIS** connecter l'émetteur-récepteur à une source d'alimentation de plus de 16 V CC, tel qu'une batterie 24 V. Cela pourrait endommager l'émetteur-récepteur.

⚠**AVERTISSEMENT ! NE JAMAIS** inverser la polarité lors de la connexion du câble d'alimentation CC à une source d'alimentation. Cela pourrait endommager l'émetteur-récepteur.

⚠**AVERTISSEMENT ! NE JAMAIS** couper le câble d'alimentation CC entre la prise CC a l'arrière de l'émetteur-récepteur et le porte-fusible. Une mauvaise connexion après la coupe pourrait endommager l'émetteur-récepteur.

⚠**AVERTISSEMENT ! NE JAMAIS** utiliser l'émetteur-récepteur durant un orage. Cela risquerait de provoquer un choc électrique, un incendie ou d'endommager l'émetteur-récepteur. Toujours débrancher la source d'alimentation et l'antenne avant une tempête.

⚠**AVERTISSEMENT ! NE JAMAIS** placer jamais l'émetteur-récepteur à un endroit pouvant gêner le fonctionnement normal du navire, ou à un endroit où il pourrait causer des blessures corporelles.

MISE EN GARDE : POSITIONNEZ l'émetteur-récepteur et le microphone à au moins 1 mètre de distance du compas de navigation magnétique du navire.

MISE EN GARDE : NE PAS utiliser ou placer l'émetteur-récepteur dans des zones où la temperature est inférieure à –20° ou supérieure à +60° ou dans des zones soumises au rayonnement solaire direct, telles le tableau de bord.

MISE EN GARDE : NE PAS utiliser de dissolvants agressifs tels que du benzène ou de l'alcool pour nettoyer l'émetteur-récepteur, car ils en endommageraient les surfaces. Si l'émetteur-récepteur est poussiéreux ou sale, nettoyez-le avec un tissu doux et sec.

NE placez **JAMAIS** l'émetteur-récepteur dans un endroit non sécurisé pour éviter toute utilisation accidentelle par des personnes non autorisées.

SOYEZ PRUDENT ! La face arrière de la VHF chauffe en cas d'utilisation continue sur une longue durée.

SOYEZ PRUDENT ! Le panneau avant de l'émetteur-récepteur répond aux exigences de IPX8 et HM-229 en option COMMANDMICV™ répondent aux exigences IPX7 pour la protection imperméable à l'eau*. Cependant, une fois que l'émetteur-récepteur ou le microphone est tombé, ou que le joint d'étanchéité est fissuré ou endommagé, la protection étanche ne peut être garantie en raison des dommages possibles au boîtier ou au joint d'étanchéité.

* Sauf pour le connecteur d'alimentation CC, les fils NMEA IN/OUT et les fils de sortie AF.

MISE AU REBUT

Le pictogramme poubelle barrée sur notre produit, notre documentation ou nos emballages vous rappelle qu'au sein de l'Union européenne, tous les produits électriques et électroniques, batteries et accumulateurs (batteries rechargeables) doivent être mises au rebut dans les centres de collecte indiqués à la fin de leur période de vie. Vous ne devez pas mettre au rebut ces produits avec les déchets municipaux non triés. Ils doivent être mis au rebut dans le respect de la réglementation en vigueur dans votre secteur.

TABLE DES MATIÈRES

RÈGLES D'UTILISATION

◇ Priorités

- Lire tous les textes et réglementations concernant les priorités et conserver une copie mise à jour à portée de main. Les appels de détresse et de sécurité sont prioritaires sur tous les autres.
- Tout opérateur doit rester en veille sur le canal 16 quand il ne trafique pas sur un autre canal.
- L'émission d'appels de détresse faux ou frauduleux est sanctionnée par la loi.

◇ Vie privée

- Toute information dont l'auditeur n'est pas le destinataire n'a aucune valeur légale.
- L'emploi d'un langage grossier ou insultant est formellement prohibé.

◇ Licences Radio

(1) LICENCE DE STATION DE NAVIRE

Tout navire équipé d'un émetteur-récepteur doit posséder une licence de station radio valide avant de pouvoir l'utiliser. L'utilisation d'un émetteur-récepteur sans licence de station de navire est illégale.

Contacter un distributeur Icom ou l'administration gouvernementale en charge de l'attribution des licences de station de navire. Cette licence comprend l'indicatif d'appel qui constitue identité du navire pour le trafic radiomaritime.

(2) LICENCE DE RADIOTÉLÉPHONISTE

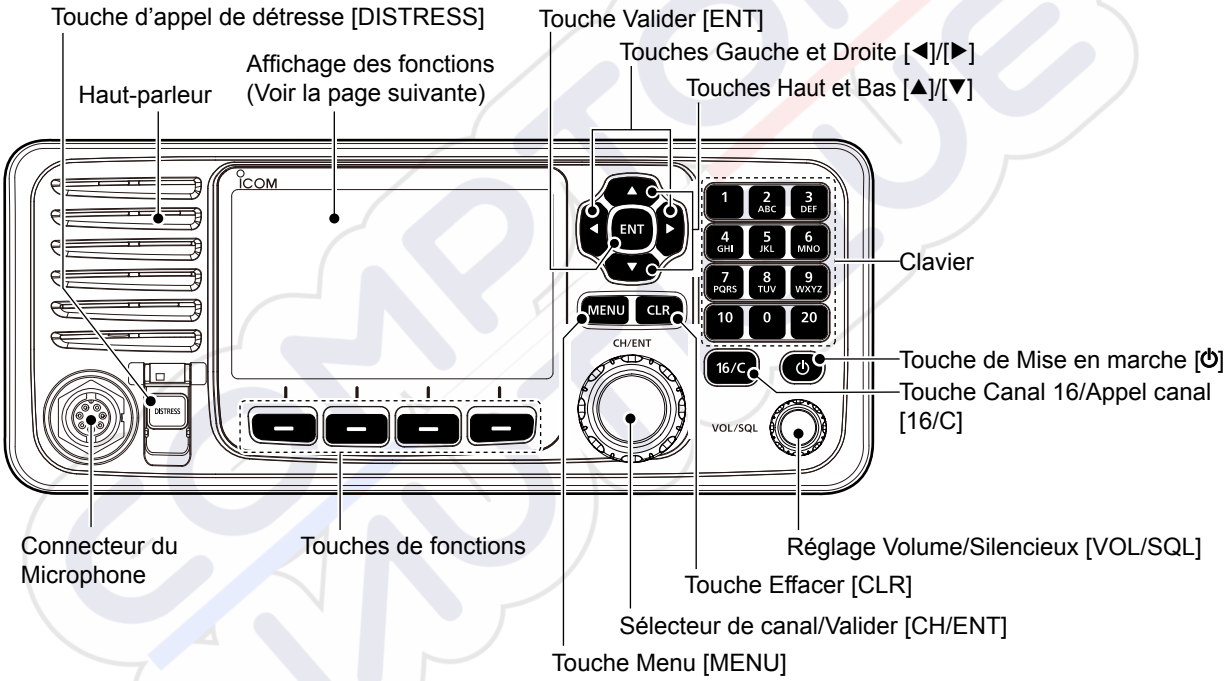
Un certificat restreint de radiotéléphoniste est la licence la plus souvent obligatoire pour les opérateurs à bord des navires de petite taille quand aucun émetteur-récepteur ne fait partie de l'armement de sécurité obligatoire.

La licence doit être conservée à proximité de la l'émetteur-récepteur ou par l'opérateur. Seul un opérateur certifié est autorisé à utiliser un émetteur-récepteur.

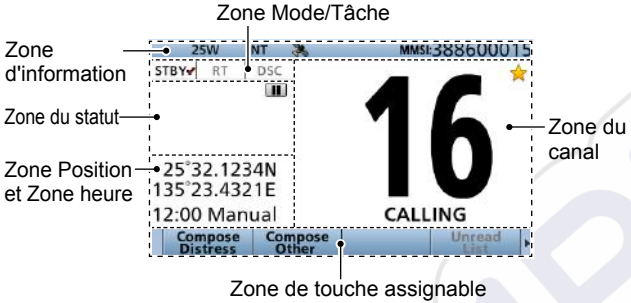
Cependant des personnes certifiées peuvent communiquer à l'aide d'un émetteur-récepteur sous réserve qu'un opérateur certifié initie, supervise et termine l'appel et effectue les enregistrements éventuellement obligatoires dans le livre de bord.

La présence d'une copie valide des lois et règlements est obligatoire uniquement à bord des navires ou une station de radiotéléphonie est obligatoire. Il y va cependant de la responsabilité de l'opérateur de n'ignorer aucune des dispositions légales et réglementaires applicables, même quand la présence d'une copie à bord n'en est pas obligatoire.

■ Face avant


Touche d'appel de détresse [DISTRESS]
Haut-parleur
Affichage des fonctions
(Voir la page suivante)
Touche Valider [ENT]
Touches Gauche et Droite [◀]/[▶]
Touches Haut et Bas [▲]/[▼]
Clavier
Touche de Mise en marche [⏻]
Touche Canal 16/Appel canal [16/C]
Connecteur du Microphone
Touches de fonctions
Réglage Volume/Silencieux [VOL/SQL]
Touche Effacer [CLR]
Sélecteur de canal/Valider [CH/ENT]
Touche Menu [MENU]
ICOM
ENT
MENU
CLR
CH/ENT
16/C
VOL/SQL
DISTRESS

■ Afficheur (Écran principal)



◇ Zone Mode/Tâche

Le mode actuel s'affiche dans la zone Mode/Tâche.

Indicateur	Description
STBY	Affiché en mode veille.
RT	S'affiche en mode Radiotéléphone (RT). ⓘ « RT » s'affiche lorsque le mode tâche RT est activé. ⓘ Retourne en mode veille si aucune opération n'a lieu pendant la durée prédéfinie.
DSC	S'affiche lorsque vous émettez ou recevez un appel ASN.

◇ Zone du canal

Le numéro de canal et le nom sélectionnés et les indicateurs suivants s'affichent dans la zone Canal.

Indicateur	Description
★	S'affiche lorsqu'un canal favori est sélectionné.
CALL	S'affiche lorsque le canal d'appel est sélectionné en gardant enfoncée [16/C] pendant 1 seconde.
DUP	S'affiche lorsqu'un canal Duplex est sélectionné.
+ −	S'affiche lorsque la tension de la batterie est faible.

◇ Zone Position et Heure

ZONE DE POSITION

La position actuelle est affichée lors de la réception de données GPS valides, ou vous entrez manuellement la position.

Indicateur	Description
NO POSITION	S'affiche lorsque l'antenne GPS n'est pas connectée ou votre position n'a pas été saisie manuellement.
??	Clignote toutes les 2 secondes à la place de l'indication de position lorsque : • La position GPS est invalide. • 4 heures se sont écoulées depuis la saisie manuelle de votre position. ⓘ Après que 23,5 heures se soient écoulées, « NO POSITION » s'affiche.

ZONE HEURE

L'heure actuelle s'affiche lors de la réception de données GPS valides, ou entrez l'heure manuellement.
Les informations de la date s'affichent lorsque les formats RMC de la phrase GPS sont inclus dans le signal GPS.

Indicateur	Description
NO TIME	S'affiche lorsque l'antenne GPS n'est pas connectée ou si l'heure n'a pas été saisie manuellement.
Local	S'affiche lorsque le temps de décalage est réglé.
Manual	S'affiche lorsque l'heure a été saisie manuellement.
UTC	S'affiche lorsque les phrases GGA, GLL ou GNS sont reçues de NMEA 0183.
??	Clignote toutes les 2 secondes à la place de l'affichage de l'heure lorsque : • L'heure du GPS n'est pas valide. • 4 heures se sont écoulées depuis la saisie manuelle. ⓘ Après que 23,5 heures se soient écoulées, « NO TIME » s'affiche.

◇ Zone du statut

L'état actuel s'affiche dans la zone d'état.

Indicateur	Description
SCAN 16	S'affiche lors d'un balayage Prioritaire.*
SCAN	S'affiche lors d'un balayage Normal.*
DUAL 16	S'affiche lors d'une Double veille.*
TRI 16	S'affiche lors d'une Triple veille.*
RX	S'affiche en mode RX Hailer.
	• S'affiche lorsque l'audio enregistré est lu ou stoppé. • S'affiche lorsque l'audio reçu est enregistré.

*Ne peut pas être utilisé dans la version néerlandaise.

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■ Afficheur (Écran principal) (suite)

◇ Zone d'information

Le code MMSI* et les indicateurs suivants s'affichent dans la zone d'information.

*Le Code ATIS s'affiche uniquement si le code ATIS est entré dans la version néerlandaise et allemande.

Indicateur	Description
BUSY	S'affiche lors de la réception d'un signal ou lorsque le squelch est ouvert.
TX	S'affiche pendant une transmission.
25W	S'affiche lorsque la haute puissance est sélectionnée.
1W	S'affiche lorsque la faible puissance est sélectionnée.
INT, USA, ATIS, DSC	Affiche le numéro du canal sélectionné.* *Les groupes de canal proposés diffèrent selon la version de l'émetteur-récepteur.
	S'affiche lorsque l'émetteur-récepteur reçoit des données de position et d'heure valides. Clignote lorsque des données de position non valides sont reçues.
	• S'affiche lorsqu'il existe des messages ASN non lus. • Clignote lorsqu'un message ASN est reçu.
	S'affiche lorsque le « CH Auto Switch » dans les paramètres ASN est réglé sur une option à l'exception de « Accept ».
	S'affiche lorsque la fonction Auto Foghorn est activée.

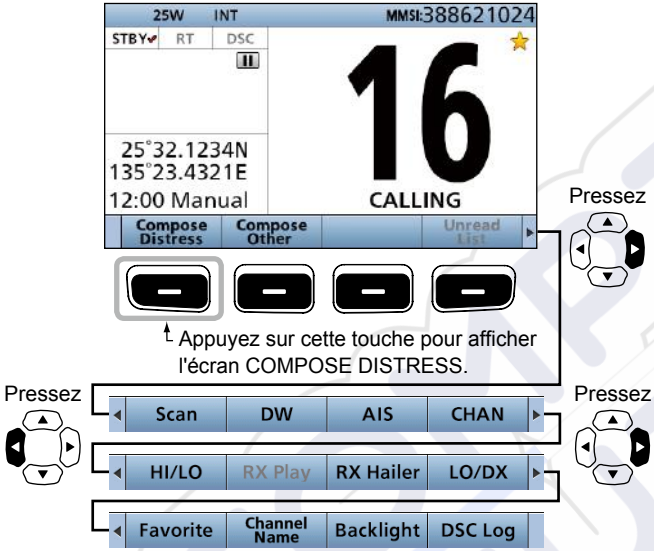
■ Touches assignables

L'émetteur-récepteur dispose de touches assignables pour différentes fonctions.
La fonction de la touche s'affiche au-dessus de la touche assignable.

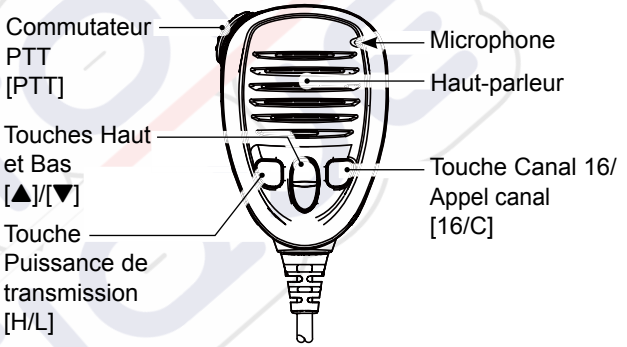
◇ Sélection de la fonction de la touche assignable*

Lorsque « ◄ » ou « ► » s'affiche à côté de l'icône de la touche, une pression sur [◄] ou sur [►] permet de faire défiler les fonctions de la touche assignable.
Une simple pression sur [◄] ou [►] permet de faire défiler 4 fonctions simultanément.

* Les fonctions de touche peuvent différer en fonction de la version de l'émetteur-récepteur.



■ Haut-parleur Microphone



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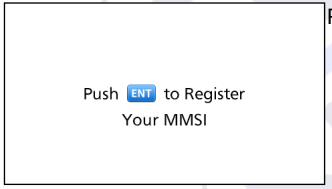
■ Saisie du code MMSI

Le code du Maritime Mobile Service Identity (Identité du service mobile maritime) (MMSI : ID ASN auto) est composé de 9 chiffres. Vous pouvez uniquement saisir le code lorsque l'émetteur-récepteur est mis sous tension pour la première fois.

Ce code initial ne peut être saisi qu'une seule fois.
Si votre code MMSI a déjà été saisi, il est inutile de procéder aux étapes mentionnées ci-dessous.

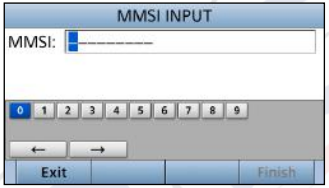
1. Maintenez [⏻] enfoncé pendant 1 seconde pour allumer l'émetteur-récepteur.
   • Trois signaux sonores courts sont émis.
   • « Push [ENT] to Register Your MMSI » s'affiche.
2. Appuyez sur [ENT] pour entrer dans le mode de saisie du code MMSI.



Pressez ENT

   • Appuyez sur [CLR] pour annuler la saisie. Dans ce cas, l'émetteur-récepteur affiche de nouveau « Push [ENT] to Register Your MMSI ».

3. Saisissez votre code MMSI à 9 chiffres.



Pressez 1 2 3 / 4 5 6 / 7 8 9 / 10 0 20 + Tournez CH/ENT

4. Après avoir saisi le 9ème chiffre, appuyez sur [Finish] [—] pour définir l'ID.

Pressez [—]

5. Saisissez de nouveau votre code MMSI pour confirmer.

Pressez 1 2 3 / 4 5 6 / 7 8 9 / 10 0 20 + Tournez CH/ENT

6. Après avoir saisi le 9ème chiffre, appuyez sur [Finish] [—] pour enregistrer le numéro d'identification.

Pressez [—]

   • L'écran suivant s'affiche lorsque vous saisissez votre code MMSI avec succès.

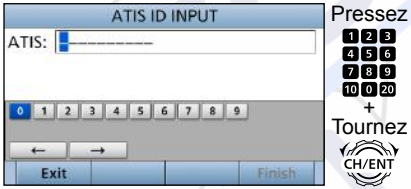
   • L'écran Principal s'affiche ensuite. Le code MMSI enregistré apparait en haut de l'écran.

■ Saisie du code ATIS

L'ID du système d'identification automatique de l'émetteur (ATIS) se compose de 10 chiffres. Vous pouvez saisir l'ID dans l'élément « ATIS ID Input » sur l'écran du menu.

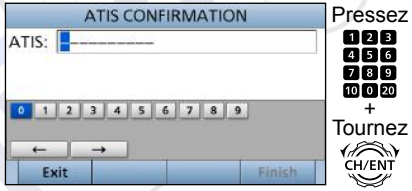
La saisie de cet ID ne peut être eff ectuée qu'une seule fois.
Si votre ID ATIS a déjà été saisi, il est inutile de procéder aux étapes mentionnées cidessous.

1. Appuyez sur [MENU].
2. Sélectionner « ATIS ID Input », puis appuyez sur [ENT].
3. Saisissez votre code ATIS à 10 chiffres.



4. Après avoir saisi le 10ème chiffre, appuyez sur [Finish] pour définir l'ID.

5. Saisissez de nouveau votre code ATSI pour confirmer.



6. Après avoir saisi le 10e chiffre, appuyez sur [Finish] pour enregistrer le numéro d'identification.

• L'écran suivant s'affiche lorsque vous saisissez votre code ATIS avec succès.

FRANÇAIS

■ Émission et réception

ATTENTION : NE PAS émettre sans antenne. Cela endommagerait l'émetteur-récepteur.

1. Maintenez [⏻] enfoncé pendant 1 seconde pour allumer l'émetteur-récepteur.
   ⓘ Si aucun code MMSI est entré, « Push [ENT] to Register Your MMSI » s'affiche.
2. Tourner [VOL/SQL] pour régler le niveau audio.
3. Appuyez sur [VOL/SQL] une fois ou deux fois pour ouvrir la fenêtre « SQL Setting », puis faites tourner [VOL/SQL] pour régler le niveau du silencieux jusqu'à ce que le bruit juste soit tout juste inaudible.
4. Sélectionnez un canal.

ⓘ **Information**
- Lors de la réception d'un signal, « BUSY » s'affiche.
- Vous pouvez utiliser le Canal 70 uniquement pour les transmissions par appel sélectif numérique (ASN).
- Lorsque l'élément « Fav ON MIC » est réglé sur « OFF », il est possible de sélectionner tous les canaux à l'aide des boutons [▲] ou [▼] sur le microphone.

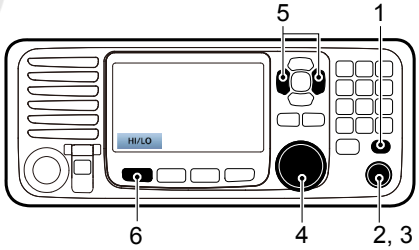
5. Appuyez sur [◀] ou [▶] jusqu'à ce que « HI/LO » s'affiche dans la zone des touches du logiciel.
6. Appuyez sur [HI/LO] [—] pour sélectionner une puissance de sortie élevée ou faible.

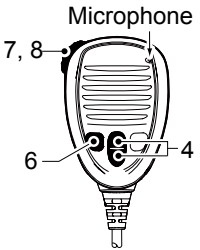
ⓘ **Information**
- « 25W » S'affiche lorsque la haute puissance est sélectionnée. Choisir une puissance élevée pour les communications sur des distances plus longues.
- « 1W » S'affiche lorsque la faible puissance est sélectionnée. Choisissez faible puissance pour les communications courte portées.
- Certains canaux sont restreints à faible puissance.

7. Maintenez la touche [PTT] enfoncée, puis parlez normalement.
   • « TX » s'affiche.
8. Relâchez [PTT] pour revenir au mode de réception.

IMPORTANT : Pour optimiser la lisibilité du signal transmis à une station de réception, marquez une pause une seconde après avoir appuyé sur [PTT], puis tenez le microphone à 5-10 cm de votre bouche et parlez normalement à voix haute.

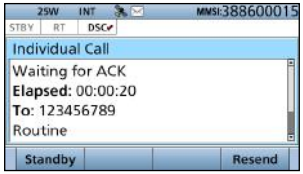
REMARQUE pour la fonction Minuteur dépassement de temps (TOT) :
La fonction TOT empêche la transmission continue au delà d'une période de temps préréglée après le début de la transmission. 10 secondes avant que la transmission ne soit coupée, un signal sonore est émis pour indiquer que la transmission va être coupée, et « TOT » clignote dans la zone d'identification du canal. Une fois qu'elle est coupée, « TIME OUT » s'affiche pendant 10 secondes. Vous ne pouvez pas transmettre jusqu'à ce que « TIME OUT » disparaisse.





■ Mode Tâches ASN

Après envoi ou réception d'un appel ASN, l'émetteur-récepteur passe en mode Tâches ASN.



(Exemple : Après l'émission d'un appel individuel)

En mode Tâches, vous pouvez renvoyer l'appel, ou envoyez une confirmation à la station appelante, etc.

REMARQUE : Le mode Tâche dispose d'une fonction TOT (Minuteur dépassement de temps). Quand vous n'appuyez sur aucune touche pendant une période de temps prédéfinie, l'émetteur-récepteur quitte automatiquement le mode Tâche.
Une alarme décompte retentit 10 secondes avant le déclenchement du TOT.
Aucune alarme de décompte ne retentit avant l'action du TOT du radiotéléphone.
Vous pouvez régler le programme dans le menu de fonction INACTIVITY TIMER.
Les réglages par défaut de la fonction TOT :
• Appel de détresse : OFF
• Appel sans détresse : 15 minutes

◇ Fonctions de la touche assignable

Lors du passage en mode Tâches, les fonctions suivantes s'affichent en premier.

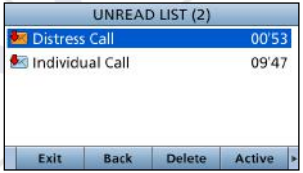
FONCTION	DESCRIPTION
Standby	Appuyez pour supprimer la tâche et retourne à l'écran principal.
Resend	Appuyez pour renvoyer un appel.

Les fonctions suivantes peuvent apparaitre, selon le type d'appel.

FONCTION	DESCRIPTION
Cancel	Poussez pour envoyer un appel d'Annulation.
Pause	Appuyez pour mettre en pause le mode de ‹répétition d'appel›, ou arrêter le compte à rebours.
Resume	Appuyez pour relancer le compte à rebours.
Finish	Appuyez pour quitter l'écran de confirmation d'annulation de détresse.
History	Poussez pour afficher l'écran de l'historique des Appels de détresse.
ACK/ ACK (able)	Poussez pour envoyer une confirmation sans changement.
ACK (Unable)	Appuyez pour envoyer un accusé de réception, mais vous ne pouvez pas établir une communication.
ACK (New CH)	Envoyer un accusé de réception. Vous pouvez spécifier le canal de communication vocale.

◇ Liste d'appels non lus

Si l'émetteur-récepteur a des appels ASN non lus, vous pouvez entrer dans le menu UNREAD LIST en appuyant sur [Unread List] [—].



ⓘ Appuyez sur [Active] [—] pour entrer dans le mode tâche.
ⓘ Appuyez sur [Info] [—] pour afficher les détails de la tâche sélectionnée.

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■ Emission d'un appel de Détresse

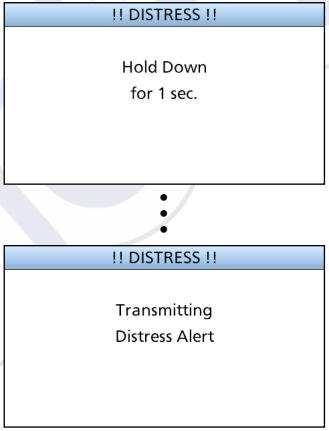
NE JAMAIS ÉMETTRE UN APPEL DE DÉTRESSE QUAND NI LE NAVIRE, NI AUCUNE PERSONNE À BORD N'EST EN RÉELLE SITUATION DE DÉTRESSE. SEULE UNE SITUATION NÉCESSITANT IMPÉRATIVEMENT UNE ASSISTANCE IMMÉDIATE JUSTIFIE L'ÉMISSION D'UN APPEL DE DÉTRESSE.

Vous devez lancer un appel de Détresse si, de l'avis du Capitaine, le navire ou une personne est en détresse et nécessite une assistance immédiate.

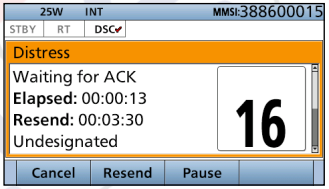
ⓘ Le canal Urgence (Canal 70) est automatiquement sélectionné pour lancer un appel de Détresse.

◇ Appel simple

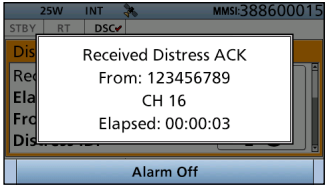
1. Vérifier qu'aucun appel de détresse n'est en cours de réception.
2. Soulevez le capot de protection, puis maintenez [DISTRESS] enfoncé jusqu'à ce que "Transmitting" soit affiché pour lancer l'appel de Détresse.
   - Tout en maintenant enfoncé le bouton [DISTRESS], un compte à rebours retentit et la touche et le rétroéclairage clignotent en même temps.



3. Après l'envoi, l'écran suivant apparait.



   - Le canal 16 est automatiquement sélectionné.
4. Lors de la réception de la réponse :
   - L'alarme émet un son.
   - La fenêtre suivante s'affiche.



5. Appuyez sur [Alarm Off] [—].
6. Appuyez sur [Close Call RCVD Window] [—].
7. Maintenez [PTT] enfoncé pour annoncer votre situation.
8. Appuyez sur [Standby] [—] pour revenir à l'écran Principal.

■ Lancement d'un appel sans Détresse

Pour assurer le bon fonctionnement de la fonction ASN, confirmer que vous avez correctement ajusté le niveau de silencieux du Canal 70.

REMARQUE :
- Le canal d'urgence (Canal 70) est automatiquement sélectionné pour l'appel.
- Si le Canal 70 est occupé, l'émetteur-récepteur se met en attente jusqu'à ce que le Canal se libère.

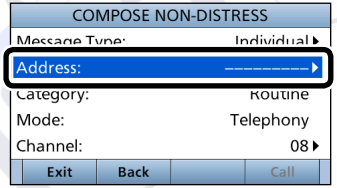
◇ Lancement d'un appel Individuel

La fonction d'appel Individuel vous permet de transmettre un signal ASN uniquement à une station côtière ou un navire spécifique.
Vous pouvez communiquer vocalement après avoir reçu la réponse 'ACK (Able).'

1. Appuyez sur [Compose Other] (–) pour afficher l'écran COMPOSE NON-DISTRESS.

Pressez

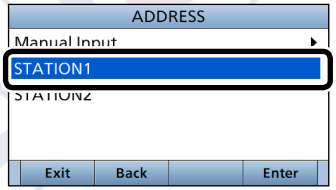
ⓘ Pour afficher l'écran depuis l'écran de menu :
([MENU] > **Compose non-Distress**)



Pressez ENT

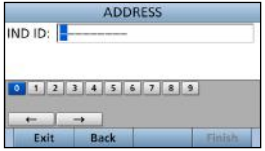
2. Appuyez sur [ENT].

3. Sélectionner l'adresse individuelle, ou sélectionnez « Manual Input, » puis appuyez sur [ENT].
(Exemple : STATION1)



Tournez CH/ENT
+
Pressez ENT

Lorsque vous sélectionnez « Manual Input » à l'étape 3, appuyez sur les touches du clavier pour saisir manuellement l'ID individuel que vous souhaitez appeler.



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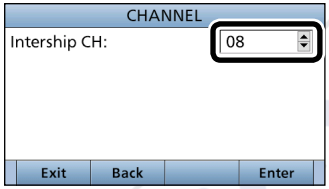
■ Lancement d'un appel sans Détresse (suite)

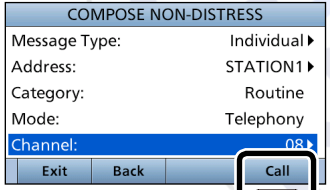
Lorsque vous sélectionnez une station côtière à l'étape 3, le canal de communication est automatiquement spécifié par la station côtière. Sautez donc les étapes 4 et 5, et passez à l'étape 6.

4. Sélectionnez « Channel, » puis appuyez sur [ENT].
5. Sélectionnez le canal vocal, puis appuyez sur [ENT].



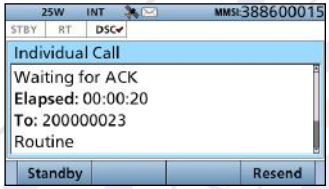
Tournez CH/ENT + Pressez ENT

6. Appuyez sur [Call] pour envoyer l'appel Individuel.

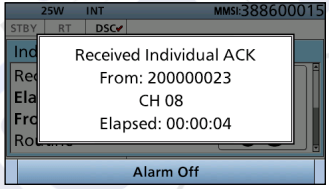


Pressez

7. Après l'envoi, l'écran suivant s'affiche.



8. Lorsque l'accusé de réception est reçu :
   • L'alarme émet un son.
   • L'écran suivant s'affiche. (Exemple : ACK (Able))



9. Appuyez sur n'importe quel [Alarm Off] .
10. Appuyez sur n'importe quel [Close Call RCVD Window] .

Lorsque vous recevez « ACK (Unable) » à l'étape 8, ignorez l'étape 11, et passez à l'étape 12.

11. Maintenez [PTT] enfoncé pour communiquer.
12. Appuyez sur [Standby] pour revenir à l'écran Principal.

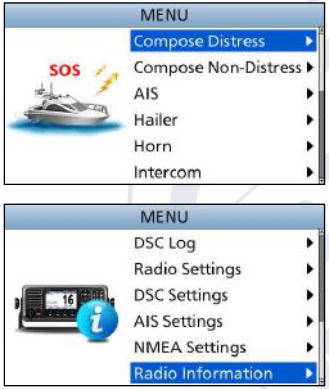
REMARQUE :
Après la réception de la confirmation :
• Le canal de communication spécifié à l'étape 5 est sélectionné.
• Un canal de communication différent est sélectionné si la station que vous appelez ne peut pas utiliser le canal.

Le menu permet de modifier les fonctions, les réglages, les options de l'émetteur-récepteur.

■ Réglage du menu

Le Menu est construit selon une structure arborescente.
Vous pouvez naviguer dans le menu avec les touches [ENT], ou [CLR].

Pour sélectionner un élément, tournez [CH/ENT].



Compose Distress
Nature of Distress
Position
• Latitude • Longitude • UTC

Compose Non-Distress
Message Type
Address*1
Position*1
• Latitude*1 • Longitude*1 • UTC*1
Category
Mode*1
Channel*1

AIS

Hailer

Horn
Manual Horn
Auto Foghorn
Frequency

Intercom*2
RADIO
SUB UNIT 1, 2, 3

GPS Information

AquaQuake

Configuration
Key Beep
Key Assignment
UTC Offset
Inactivity Timer
• Not DSC Related • DSC Related • Distress Related • RT Related
Speaker
• Internal • Int. and ext.
Noise Cancel
• RX • TX
Power SW from Sub Unit
• All Units • Own Unit

*1 Peut ne pas s'afficher, selon le type de message.
*2 S'affiche lorsqu'une commande optionnelle de microphone ou tête de commande est connectée à l'émetteur-récepteur.

■ Réglage du menu (suite)

DSC Log
Received Call Log
Transmitted Call Log

Radio Settings
Scan Type*2
Scan Timer*2
Dual/Tri-Watch*2
Channel Group
Call Channel
Voice Scrambler*3
Voice Record
FAV Settings
FAV on MIC
Channel Display

DSC Settings
Position Input*1
Individual ID
Group ID
Auto ACK
CH Auto Switch
DSC Data Output
Alarm Status
• Safety • Routine
• Warning
• Self-Terminate • Discrete
CH 70 SQL Level
Self Check Test

AIS Settings
North Up/COG Up
CPA/TCPA
ID Blocking

NMEA Settings
NMEA0183
• Port 1, Port 2
NMEA2000
• GPS, AIS

Radio Information

*1 Non affiché lorsque des données GPS valides sont reçues.
*2 Ne peut pas être utilisé dans la version néerlandaise.
*3 S'affiche uniquement si un brouilleur de voix est installé.

■ Sélection d'un élément du Menu

Suivez les procédures décrites ci-dessous pour sélectionner un élément du Menu.

Exemple : Configurez la fonction Triple veille.

1. Appuyez sur [MENU] pour afficher l'écran MENU.
2. Tournez [CH/ENT] pour sélectionner « Radio Settings », puis appuyez sur [ENT].

Tournez CH/ENT + Pressez ENT

3. Tournez la touche [CH/ENT] pour sélectionner « Dual/Tri-Watch », puis appuyez sur [ENT].

Tournez CH/ENT + Pressez ENT

4. Tournez [CH/ENT] pour sélectionner « Tri-Watch » puis appuyez sur [ENT].

Tournez CH/ENT + Pressez ENT

• Règle la fonction de triple veille, puis revient à l'écran RADIO SETTINGS, après avoir appuyé sur [ENT].

5. Appuyez sur [MENU] pour revenir à l'écran Principal.

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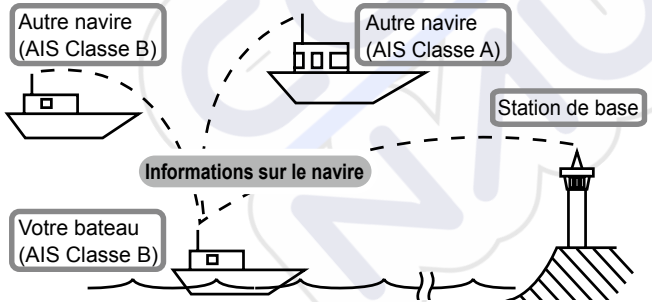
6 RÉCEPTEUR AIS

■ À propos de l' AIS

Le système d' identification automatique (AIS) est principalement utilisé pour la gestion des risques de collisions et la sécurité de la navigation. Il transmet et reçoit automatiquement les informations de navire, telles que le nom du navire, le code MMSI, le type de navire, les données de position, la vitesse, la route, la destination et bien plus encore. Les informations sont échangées entre les navires et/ou par les stations de base sur la bande radio maritime mobile VHF. Permet d'identifier les informations d'autres navires ou les stations reçues par l'affichage de données d'un traceur sur un écran ou un radar.

REMARQUE pour la fonction récepteur AIS :
Tous les navires ne sont pas équipés d'émetteurs AIS, les récepteurs AIS ne remplacent donc pas la surveillance visuelle. Pendant que la VHF marine émet sur la même bande de fréquences et sur le navire où est installé le récepteur AIS, les signaux AIS émis par d'autres navires peuvent être supprimés et ne pas être affichés à l'écran.



■ Classes AIS

Il y a 7 types de stations AIS, de navires, des stations de base, recherche et sauvetage (SAR), aides à la navigation (AtoN), Recherche et Transmetteur de sauvetage (AIS -SART), Man OverBoard (MOB), et position d'urgence Indication de Radio Beacon AIS (EPIRB- AIS).

Il y a 2 catégories d'unités AIS, qui sont installées sur les bateaux : Classes A et B.

Sous la Convention de Sécurité de Vie en Mer (SOLAS), tous les navires SOLAS, tels que décrit ci-dessous, sont requis pour installer un transpondeur AIS de Classe A :

- Au-dessus de 300 tonnes brute effectuant des voyages internationaux.
- Navires à passagers, quelle que soit la taille, enclenchés sur les itinéraires internationaux.
- Au-dessus de 500 tonnes brute n'effectuant pas des voyages internationaux.

Un transpondeur AIS Classe B a été conçu pour être interopérable avec les appareils de classe A, mais pas pour affecter le réseau de Classe A.
De nombreux navires commerciaux, et certains bateaux de plaisance, non classifiés comme nécessitant un appareil de classe A, choisissent d'installer une unité de Classe B pour éviter tout risque d'accident en mer.

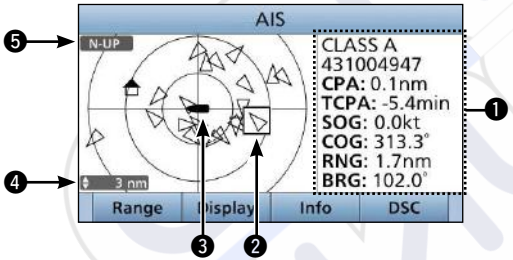
■ Afficheur

Il y a 3 types de fonction affichage, traceur, liste cible et liste danger. Sélectionnez le type d'affichage à l'aide de la touche [Display].

1. Appuyez sur [MENU].
2. Sélectionnez « AIS » puis appuyez sur [ENT].
   • L'écran du traceur s'affiche.

◇ Écran Traceur

Si le GPS est connecté et qu'il reçoit des signaux provenant d'un satellite, l'écran du traceur affiche la portée d'affichage et les icônes des cibles de l'AIS.



❶ INFORMATIONS
Affiche les informations de la cible sélectionnée.

❷ BOITE CIBLE
Affiche la cible AIS.
ⓘ Lorsqu'une boîte cible s'affiche, appuyez sur [ENT] pour afficher l'écran de détail de la cible AIS sélectionnée.

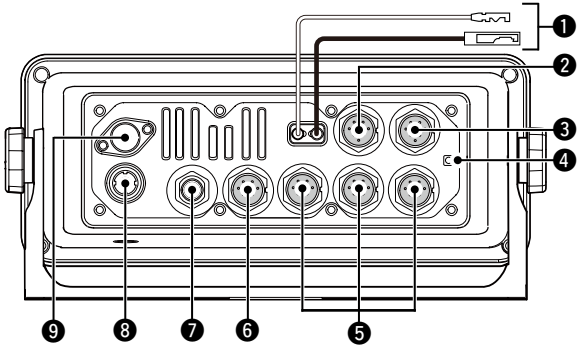
❸ ICÔNE DE VOTRE NAVIRE
S'affiche au centre de l'écran.
ⓘ Lorsque « N-UP » s'affiche, l'icone de navire pointe automatiquement dans la direction dans laquelle vous vous dirigez, par étapes de 45 degrés.
ⓘ Lorsque « COG-UP » s'affiche, l'icone du navire pointe constamment vers le haut de l'écran du traceur.
ⓘ Lorsque votre navire se déplace à moins de 2 nœuds, l'icône « ● » s'affiche.

❹ PLAGE D'AFFICHAGE
Affiche la plage d'affichage sélectionnée.
Appuyez sur la touche [Range] pour sélectionner la plage d'affichage.
ⓘ 0,125 - 0,25 - 0,5 - 0,75 - 1,5 - 3 - 6 - 12 - 24 nm (milles nautiques) peuvent être sélectionnés.

❺ TYPE D'AFFICHAGE
Affiche le type d'affichage sélectionné. Il est possible de sélectionner le type d'affichage sur l'écran du menu.
ⓘ Lorsque « N-UP » s'affiche, le haut de l'écran du traceur représente le Nord.
ⓘ Lorsque « COG-UP » s'affiche, le haut de l'écran du traceur représente la direction de votre navire.

CONNEXIONS ET ACCESSOIRES FOURNIS

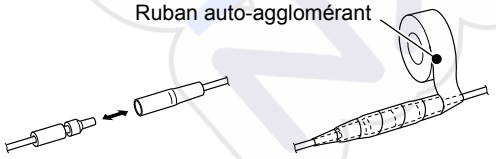
■ Connexions



❶ CONNECTEUR D'ALIMENTATION CC

Permet de se connecter à une source d'alimentation CC 13,8 V. (+: Rouge, –: Noir)

ATTENTION : Après avoir branché le câble d'alimentation CC, les câbles NMEA, les câbles des enceintes externes et les câbles Hailer, couvrir le connecteur et les câbles avec un ruban adhésif, comme indiqué ci-dessous, pour empêcher l'infiltration d'eau dans la connexion.



❷ CONNECTEUR DE MICROPHONE

Relie le microphone HM-205 fourni ou en option. *

*Ne peut pas être utilisé lorsque le microphone est connecté au connecteur situé sur le panneau avant.

❸ CONNECTEUR HAUT-PARLEUR EXTERNE

Connecte le SP-37 en option HAUT-PARLEUR EXTERNE.

Vue du panneau arrière de l'émetteur-récepteur

❹ BORNE DE TERRE

Se connecte à la masse du bateau pour éviter tout choc électrique et les interférences avec d'autres équipements. Utilisez une vis autotaraudeuses (3 × 6 mm : non fourni).

❺ MICROPHONE DE COMMANDE/ CONNECTEUR DE TÊTE DE COMMANDE

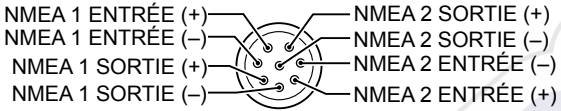
Connecte le microphone de commande en option* ou la tête de commande.

*OPC-2384 UN CÂBLE DE CONVERSION est nécessaire.

❻ CONNECTEURS NMEA 0183

- Se raccorde aux bornes sorties NMEA 0183 d'un ordinateur ou NMEA 0183 d'un équipement de navigation compatible au format de phrase ASN ou DSE, pour recevoir les données de position des autres navires.

- Se raccorde aux bornes d'entrées NMEA 0183 d'un récepteur GPS pour les données de position.
  - Un récepteur GPS compatible avec NMEA 0183 au phrases de format RMC, GGA, GNS, ou GLL et VTG est nécessaire. Demandez a votre revendeur des informations sur les récepteurs GPS appropriés.



Vue du panneau arrière de l'émetteur-récepteur

❼ CONNECTEUR NMEA 2000
Se connecte au réseau NMEA 2000.

❽ CONNECTEUR ANTENNE GPS
Brancher le câble d'antenne GPS fourni.

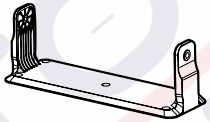
REMARQUE : Assurez-vous que l'antenne GPS est positionnée où l'antenne GPS a une vue dégagée pour recevoir des signaux satellites.

❾ CONNECTEUR D'ANTENNE
Se raccorde à une antenne VHF marine dotée d'un connecteur PL-259.

ATTENTION : Émettre sans antenne pourrait endommager l'émetteur-récepteur.

■ Accessoires fournis

Étrier de fixation



Pour le support de montage

Boulons à bouton

Rondelles plates (M5)

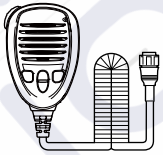
Vis (M5×20 mm)

Rondelles à ressort (M5)

Vis (5×20 mm)

Écrous (M5)

Microphone



Attache microphone et vis (3×16 mm)

Éponges

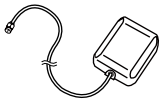
Connecteurs accessoires

6 broches 8 broches

Câble d'alimentation CC (OPC-1174A)*1

*1 À utiliser pour la vérification du fonctionnement.
(12 V CC uniquement)

Antenne GPS



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8 SPÉCIFICATIONS ET OPTIONS

■ Spécifications

(Selon EN301 025)

Caractéristiques sujettes à modifications sans préavis ni obligation d'information.

◇ Généralités

- Fréquences couvertes : TX 156,000 ~ 161,600 MHz
  RX 156,000 ~ 163,425 MHz
  156,525 MHz (CH70/ASN)
- Mode : FM (16K0G3E), ASN (16K0G2B)
- Plage de température de fonctionnement :
  –20 °C ~ +60 °C
- Consommation de courant : TX haut (25 W) 6,0 A maximum
  RX Maximum audio 8,0 A maximum*
- Alimentation : 13,8 V CC nominal
  (négatif à la masse)
- Impédance de l'antenne : 50 Ω nominal
- Dimensions
  (Protubérances non incluses) : 274 (L) × 114 (H) × 121,5 (P) mm
- Poids (approximatif) : 1,5 kg

*Lorsque des options (microphones 3 commande, haut-parleurs hailer, et haut-parleur externe) sont connectés.

◇ Émetteur

- Puissance de sortie : 25 W ou 1 W
- Système de modulation : Modulation de fréquence à inductance variable
- Variation de fréquence maximale :
  ±5 kHz
- Stabilité en fréquence : Moins de ±0,5 kHz
- Rayonnement non essentiel : Moins de 0,25 µW
- Puissance du canal adjacent : Plus de 70 dB
- Distorsion de l'harmonie audio :
  Moins de 10% (à 60% de déviation)
- Modulation résiduelle : Plus de 40 dB
- Réponse de la fréquence audio :
  +1 ~ –3 dB plage de 6 dB/octave de 300 Hz à 3 000 Hz

◇ Récepteur

- Sensibilité :
  FM : –5 dBµ emf (typique) (20 dB SINAD)
  ASN (CH70) : –3 dBµ emf (typique) (1% BER)
- Sensibilité squelch : Moins de –2 dBµ emf
- Intermodulation :
  FM : Plus de 75 dB
  ASN (CH70) : Plus de 73 dBµ emf (1% BER)
- Réponses des parasites :
  FM : Plus de 75 dB
  ASN (CH70) : Plus de 73 dBµ emf (1% BER)
- Sélectivité du canal adjacent :
  FM : Plus de 75 dB
  ASN (CH70) : Plus de 80 dBµ emf (1% BER)
- Puissance de sortie de l'audio : Plus de 15 W à 10 % de distorsion avec une charge de 4 Ω.
- Radioamateur et le bruit : Plus de 40 dB
- Réponse de la fréquence audio : +1 ~ –3 dB plage de –6 dB/octave de 300 Hz à 3 000 Hz

■ Options

◇ Tête de commande et câbles

• **RC-M600** TÊTE DE COMMANDE
La tête de commande avec le même panneau frontal que l'émetteur-récepteur. Support de montage, microphone, et 10 mètres (32,8 pieds) de câble de connexion fourni.

• **OPC-2383** CÂBLE DE COMMANDE*
10 mètres de câble (32,8 pieds) pour connecter l'émetteur-récepteur et la TÊTE DE COMMANDE RC-M600.
*Le même câble que le câble fourni avec le RC-M600.

• CÂBLE D'EXTENSION **OPC-2377**
10 mètres (32,8 pieds) de câble d'extension.

◇ Microphone et câbles

• **HM-229B/HM-229W** COMMANDMICV™
Contrôleur externe de type microphone. Fournit le fonctionnement de l'interphone en option. 6 mètres (20 pieds) de câble microphone et la base de montage inclues.
HM-229B : Noir
HM-229W : Blanc

• CÂBLE DE CONVERSION **OPC-2384**
Le câble pour connecter l'émetteur-récepteur et HM-229 COMMANDMICV™.

• CÂBLE D'EXTENSION DU MICROPHONE **OPC-1541**
6 mètres (20 pieds) de câble d'extension de microphone pour HM-229 COMMANDMICV™ en option. Jusqu'à deux OPC-1541 peuvent être connectés. La longueur utilisable est de 18 mètres (60 pieds) au maximum.

• HAUT-PARLEUR MICROPHONE **HM-205RB**
Équipé des touches [▲]/[▼] (canal haut/bas), [H/L], [16/C], et [PTT], un haut-parleur et un microphone.

◇ Autres

• **SP-37** HAUT-PARLEUR EXTERNE
L'avertisseur sonore de l'enceinte externe. Connexion d'accessoires à l'aide du connecteur à 6 broches qui est fourni avec l'émetteur-récepteur.

• **MA-510TR** TRANSPONDEUR AIS CLASSE B
Pour transmettre des appels ASN individuels aux cibles AIS sélectionnées.

• **MB-75** KIT DE MONTAGE FLUSH
Pour installer l'émetteur-récepteur sur un panneau.

• **UX-241** ANTENNE GNSS*
Pour recevoir le signal GPS.
*La même antenne GPS que l'antenne fournie avec l'émetteur-récepteur.

• **UT-112** UNITÉ DE BROUILLEUR DE VOIX
Assure des communications privées. 32 codes sont disponibles.
Non disponible dans certains pays.
Demandez à votre revendeur ou centre de service technique pour plus de détails concernant l'installation.

ITALIANO

Vi ringraziamo per aver scelto un prodotto Icom. Questo prodotto è stato progettato e realizzato avvantaggiandosi della superiore capacità tecnologica e costruttiva Icom. Usato con i dovuti accorgimenti questo prodotto darà il massimo con un funzionamento esente da anomalie per diversi anni.

Il RICETRASMETTITORE VHF NAUTICO IC-M605EURO ha le funzioni DSC per la trasmissione e la ricezione di una richiesta di soccorso, oltre alle chiamate generiche DSC (chiamata Individuale, chiamata Tutte le Navi, ecc.).

IMPORTANTE

LEGGERE TUTTE LE ISTRUZIONI con attenzione prima di iniziare ad utilizzare il ricetrasmettitore.
CONSERVARE QUESTO MANUALE DI ISTRUZIONI - Questo manuale di istruzioni contiene importanti istruzioni d'uso per il IC-M605EURO.

Icom non è responsabile per la distruzione, il danneggiamento o le prestazioni di qualsiasi attrezzatura Icom o non Icom se il malfunzionamento è causato da:
- Forza maggiore, che include, non limitandosi a, incendi, terremoti, tempeste, inondazioni, fulmini o altri disastri naturali, perturbazioni, rivolte, guerre o contaminazione radioattiva.
- L'utilizzo del ricetrasmettitore Icom con qualsiasi apparecchiatura che non sia stata prodotta o approvata da Icom.

Consultare il Manuale di Istruzioni del IC-M605EURO in inglese per maggiori informazioni sulle funzioni non riportate in questo Manuale Introduttivo.

DEFINIZIONI ESPLICITE

PAROLA	DEFINIZIONE
⚠**AVVERTENZA!**	Possono verificarsi incidenti alla persona, con pericolo di incendio o scossa elettrica.
ATTENZIONE	Possono verificarsi danni all'apparato.
NOTA	Consigliata per un utilizzo ottimale. Nessun pericolo di incendio, scossa elettrica o lesioni per l'operatore.

PULIRE BENE IL PANNELLO FRONTALE CON ACQUA DOLCE dopo averlo esposto all'acqua salata, e asciugarlo prima dell'utilizzo. Diversamente i tasti, gli interruttori e i dispositivi di controllo del pannello frontale potrebbero diventare instabili, a causa dei cristalli di sale.

NOTA: se la protezione impermeabile del pannello frontale appare difettosa, pulirla bene con un panno morbido e bagnato (con acqua dolce), quindi asciugarla prima dell'utilizzo.
Il pannello frontale potrebbe perdere la sua protezione impermeabile se la cassa o il coperchio del connettore sono incrinati o rotti o se il ricetrasmettitore viene fatto cadere.

IN CASO D'EMERGENZA

Se la vostra imbarcazione ha bisogno di assistenza, contattare altre imbarcazioni e la Guardia Costiera inviando una chiamata di Emergenza sul Canale 16.

USO DEL CANALE 16
PROCEDURA CHIAMATA DI SOCCORSO
1. “MAYDAY MAYDAY MAYDAY.”
2. “QUESTO È .....” (nome dell'imbarcazione).
3. Comunicare il proprio identificativo o altra descrizione dell'imbarcazione (e l'ID DSC da 9 cifre, se se ne possiede uno).
4. “LOCALIZZATO A .....” (la propria posizione).
5. Definire la natura dell'emergenza e l'assistenza richiesta.
6. Dare qualunque altra informazione che possa facilitare il salvataggio.

Oppure inviate una chiamata di soccorso tramite il sistema digitale selettivo sul canale 70.

USO CHIAMATA DIGITALE SELETTIVA CAN.
PROCEDURA CHIAMATA DI SOCCORSO
1. Tenendo sollevato la copertura tasto, tenere premuto per 3" [DISTRESS], fino all'emissione 3 note brevi seguite da una lunga.
2. Attendere sul canale 70 il riconoscimento da parte della stazione costiera.
   - Una volta ricevuto il riconoscimento, il Canale 16 viene selezionato automaticamente.
3. Tenere premuto il [PTT], dare le informazioni come sopra.

NOTE INSTALLAZIONE

Installazione
L'installazione di questa apparecchiatura deve essere eseguita nel rispetto dei limiti di esposizione ai campi elettromagnetici raccomandati dalla CE. (1999/519/CE)

La potenza RF massima erogata da questo apparecchio è 25 W. L'antenna deve essere posta il più in alto possibile, per massimizzare la resa e comunque almeno 1,76 m sopra il livello raggiungibile da persone. Nel caso che non si possa rispettare questa misura, il trasmettitore non può operare per periodi prolungati, se qualcuno può avvicinarsi entro 1,76 m di distanza dall'antenna. Non si deve assolutamente operare se qualcuno è a contatto con l'antenna.

Si consiglia l'utilizzo di un'antenna con un guadagno massimo di 3 dB. Se fosse necessario installare un'antenna con guadagno maggiore, rivolgetevi al vostro Rivenditore per avere indicazioni d'installazione adeguate.

Operatività
Il possibile rischio d'esposizione al campo elettromagnetico RF sussiste soltanto durante la trasmissione. Normalmente il trasmettitore non è attivo per periodi lunghi, alternandosi questa con la ricezione. Fate in modo di prolungare la durata della trasmissione solo per quanto necessario.

PRECAUZIONI

⚠**AVVERTENZA! MAI** collegare il ricetrasmettitore direttamente ad una presa di rete. Sussiste il pericolo di incendio e di scossa elettrica.

⚠**AVVERTENZA!** Non connettere **MAI** il ricetrasmettitore a una fonte di alimentazione superiore a 16 V CC, per esempio una batteria da 24 V. Ciò potrebbe danneggiare il ricetrasmettitore.

⚠**AVVERTENZA!** Non invertire **MAI** la polarità del cavo di alimentazione CC quando si connette a una fonte di alimentazione. Ciò potrebbe danneggiare il ricetrasmettitore.

⚠**AVVERTENZA! MAI** tagliare il cavo di alimentazione DC tra la spina DC sul retro del ricetrasmettitore e il portafusibili. Se dopo il taglio il collegamento non è stato eseguito correttamente, questo può danneggiare il ricetrasmettitore.

⚠**AVVERTENZA! MAI** utilizzare il ricetrasmettitore durante un temporale. Facendolo si rischierebbe di causare scosse elettriche, incendi o danni al ricetrasmettitore. Scollegare sempre a fonte di alimentazione e l'antenna prima di un temporale.

⚠**AVVERTENZA! MAI** porre il ricetrasmettitore in un luogo in cui questo possa intralciare le normali operazioni sull'imbarcazione o causare lesioni personali.

ATTENZIONE: TENERE il ricetrasmettitore e il microfono ad almeno 1 metro di distanza dalla bussola di navigazione magnetica dell'imbarcazione.

ATTENZIONE: NON utilizzare o porre il ricetrasmettitore in aree con temperature sotto i –20°C o sopra i +60°C, o in aree soggette alla luce solare diretta, come la plancia.

ATTENZIONE: NON utilizzare solventi aggressivi come la benzina o l'alcol per pulire il ricetrasmettitore, poiché le superfici potrebbero venirne danneggiate. Se il ricetrasmettitore si impolvera o si sporca, pulirlo con un panno morbido e asciutto.

MAI posizionare il ricetrasmettitore in un luogo non sicuro per evitarne l'utilizzo involontario da parte di persone non autorizzate.

PRESTARE ATTENZIONE! Utilizzando l'apparecchio in trasmissione per lunghi periodi, può provocare un riscaldamento del pannello posteriore.

PRESTARE ATTENZIONE! Il pannello frontale del ricetrasmettitore è conforme ai requisiti IPX8 e il COMMANDMICV™ HM-229 opzionale è conforme ai requisiti IPX7 di protezione per resistenza all'acqua*. Tuttavia, se il ricetrasmettitore o il microfono vengono fatti cadere, o il sigillo impermeabile è incrinato o danneggiato, la protezione impermeabile non può essere garantita a causa di possibili danni alla cassa o al sigillo impermeabile.

* Eccetto il connettore di alimentazione CC, i cavi di ingresso/uscita NMEA e i cavi di uscita AF.

SMALTIMENTO

Il simbolo del cassonetto barrato riportato sul prodotto, sulle pubblicazioni o sull'imballaggio ricorda che nell'Unione Europea tutti i prodotti elettrici ed elettronici, le batterie e gli accumulatori (batterie ricaricabili) devono essere portati in punti raccolta stabiliti alla fine della durata in servizio. Non smaltire questi prodotti come rifiuti urbani indifferenziati. Smaltirli in base alle leggi vigenti nella propria area.

INDICE

REGOLE OPERATIVE

◇ Priorità

- Leggere tutte le regole che disciplinano le chiamate prioritarie, e tenerne una copia aggiornata a portata di mano. Le chiamate di sicurezza e soccorso hanno la priorità sulle altre.
- Quando non si sta operando su un altro canale, è necessario monitorare il canale 16.
- Chiamate di soccorso false o fraudolente sono vietate dalla legge.

◇ Riservatezza

- Informazioni ascoltate, ma non dirette all'utente, non possono in alcun modo essere usate legalmente.
- Il linguaggio indecente o blasfemo è proibito.

◇ Licenze radio

(1) LICENZA IMBARCAZIONE

Prima di poter usare il ricetrasmettitore potrebbe essere obbligatorio possedere una licenza per stazione radio. È violazione di legge operare da una stazione natante per cui si richiede licenza ma non se ne dispone.

Se richiesto, contattare il rivenditore o l'agenzia governativa appropriata per una richiesta di licenza per radiotelefono marino. Questa licenza governativa identifica il natante nelle radiocomunicazioni.

(2) LICENZA OPERATORE

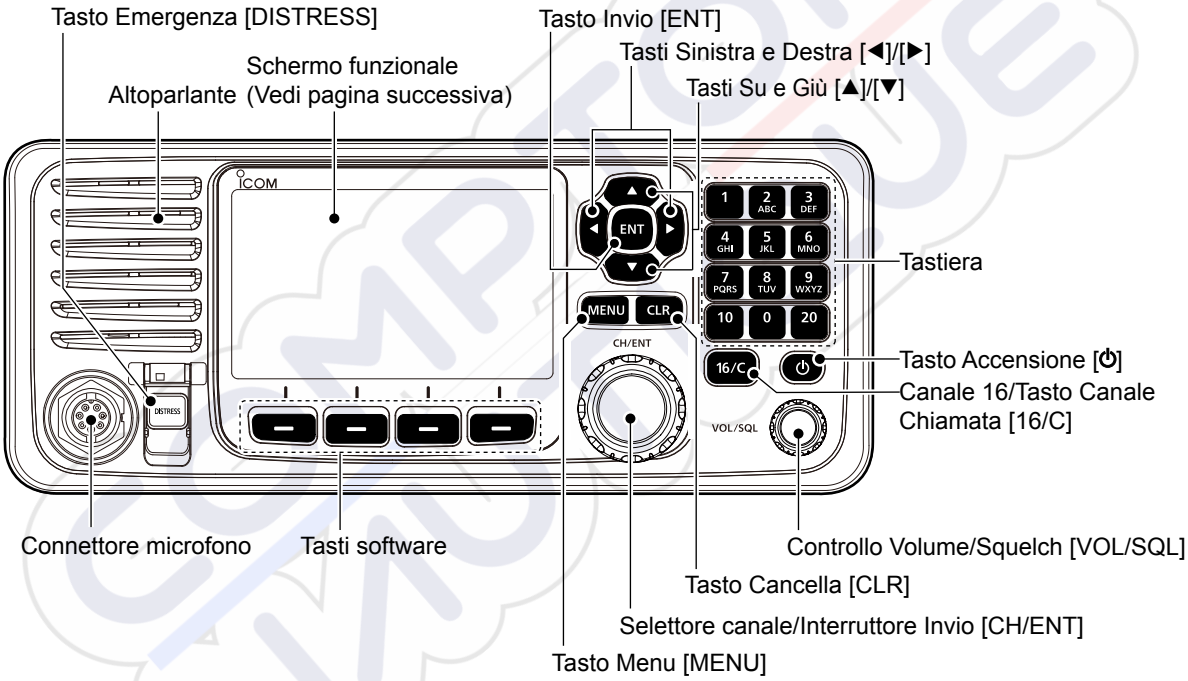
Un permesso radiotelefonico d'uso limitato è la licenza più frequentemente rilasciata agli operatori radio di piccoli natanti, in cui la radio non è obbligatoria a fini di sicurezza.

Se richiesto, tale permesso deve essere affisso o tenuto a disposizione dall'operatore. Se richiesto, solo un operatore radio autorizzato può utilizzare un ricetrasmettitore.

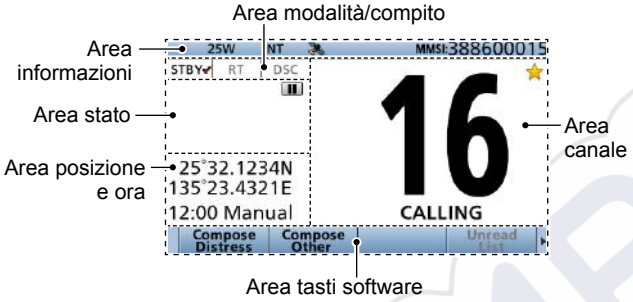
Tuttavia, le persone sprovviste di licenza possono utilizzare un ricetrasmettitore se un operatore provvisto di licenza inizia, supervisiona, termina la chiamata ed esegue i necessari inserimenti nel registro.

Per i soli natanti che devono obbligatoriamente disporre del radiotelefono marino è necessario avere a disposizione il regolamento d'uso e le normative governative applicabili. Ma anche se non si ha questo obbligo, è comunque opportuno essere bene edotti sulla regolamentazione d'uso.

■ Frontale


Tasto Emergenza [DISTRESS]
Schermo funzionale
Altoparlante (Vedi pagina successiva)
Tasto Invio [ENT]
Tasti Sinistra e Destra [◀]/[▶]
Tasti Su e Giù [▲]/[▼]
Tastiera
Tasto Accensione [⏻]
Canale 16/Tasto Canale Chiamata [16/C]
Controllo Volume/Squelch [VOL/SQL]
Tasto Cancella [CLR]
Selettore canale/Interruttore Invio [CH/ENT]
Tasto Menu [MENU]
Connettore microfono
Tasti software
ICOM
ENT
MENU
CLR
CH/ENT
16/C
VOL/SQL
DISTRESS

■ Display funzioni (schermo principale)



◇ Area modalità/compito

La modalità corrente viene visualizzata nell'area modalità e compito.

Indicatore	Descrizione
STBY	Visualizzato durante la modalità di attesa.
RT	Visualizzato in modalità Radio Telefono (RT). ⓘ "RT" è visualizzato quando è attivato il compito modalità RT. ⓘ Ritorna in modalità di attesa se non si verificano operazioni durante il periodo di tempo preimpostato.
DSC	Visualizzato dopo l'effettuazione o la ricezione di una chiamata DSC.

◇ Area canale

Il numero canale di funzionamento selezionato, il nome canale e i seguenti indicatori sono visualizzati nell'area Canale.

Indicatore	Descrizione
★	Visualizzato quando viene selezionato un canale Preferiti.
CALL	Visualizzato quando il canale Chiamata è selezionato tenendo premuto [16/C] per 1 secondo.
DUP	Visualizzato quando viene selezionato un canale Duplex.
+-	Visualizzato quando la tensione della batteria è bassa.

◇ Area posizione e ora

AREA POSIZIONE

La posizione corrente viene visualizzata quando vengono ricevuti dati GPS validi o viene immessa manualmente.

Indicatore	Descrizione
NO POSITION	Visualizzato quando un'antenna GPS non è connessa o la posizione non è stata inserita manualmente.
??	Lampeggia ogni 2 secondi al posto della posizione quando: • La posizione GPS non è valida. • Sono trascorse 4 ore da quando la posizione è stata immessa manualmente. ⓘ Quando sono trascorse 23,5 ore, "NO POSITION" verrà visualizzato.

AREA ORA
L'ora corrente viene visualizzata quando vengono ricevuti dati GPS validi o viene immessa manualmente.
Le informazioni sulla data sono visualizzate quando i formati della frase GPS RMC sono inclusi nel segnale GPS.

Indicatore	Descrizione
NO TIME	Visualizzato quando un'antenna GPS non è connessa o l'ora non è stata inserita manualmente.
Local	Visualizzato quando il tempo di offset è impostato.
Manual	Visualizzato quando l'ora è stata immessa manualmente.
UTC	Visualizzato quando le frasi GGA, GLL o GNS sono ricevute da NMEA 0183.
??	Lampeggia ogni 2 secondi al posto dell'ora quando: • L'ora corrente GPS non è valida. • Sono trascorse 4 ore da quando l'ora è stata immessa manualmente. ⓘ Quando sono trascorse 23,5 ore, "NO TIME" verrà visualizzato.

◇ Area stato
Lo stato corrente viene visualizzato nell'area di stato.

Indicatore	Descrizione
SCAN 16	Visualizzato durante una scansione Prioritaria.*
SCAN	Visualizzato durante una scansione Normale.*
DUAL 16	Visualizzato durante Dualwatch.*
TRI 16	Visualizzato durante Tri-watch.*
RX	Visualizzato quando si è in modalità megafono RX.
	• Visualizzato quando l'audio registrato viene riprodotto o arrestato. • Visualizzato quando l'audio ricevuto viene registrato.

*Non utilizzabile nella versione olandese.

◇ Area informazioni

Il codice MMSI* e i seguenti indicatori sono visualizzati nell'area informazioni.

*Il codice ATIS viene visualizzato se solo il codice ATIS è stato immesso nella versione olandese e tedesca.

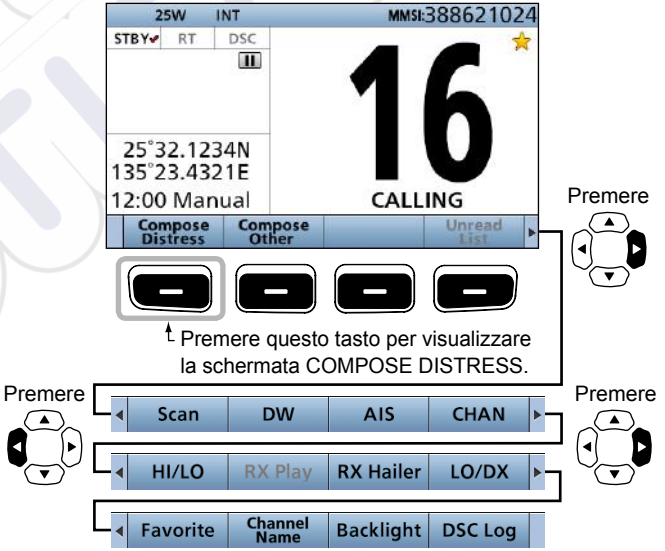
Indicatore	Descrizione
BUSY	Visualizzato quando viene ricevuto un segnale o quando lo squelch è aperto.
TX	Visualizzato durante la trasmissione.
25W	Visualizzato quando viene selezionata una potenza elevata.
1W	Visualizzato quando viene selezionata una potenza bassa.
INT, USA, ATIS, DSC	Visualizza il gruppo canali selezionato.* *I gruppi di canali selezionabili potrebbero essere diversi, a seconda della versione del ricetrasmettitore.
	Visualizzato quando il ricetrasmettitore riceve dati di posizione e dell'ora validi. Lampeggia quando vengono ricevuti dati GPS non validi.
	• Visualizzato quando sono presenti messaggi DSC non letti. • Lampeggia quando viene ricevuto un messaggio DSC.
	Visualizzato quando l'interruttore "CH Auto Switch" nelle impostazioni DSC è impostato su un'opzione diversa da "Accept".
	Visualizzato quando la funzione Sirena da nebbia auto è attivata.

■ Funzione dei tasti software

Il ricetrasmettitore dispone di tasti software utilizzabili per varie funzioni. La funzione del tasto è visualizzata sopra il tasto software.

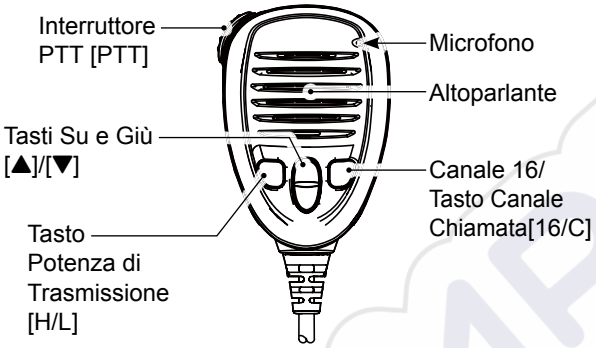
◇ Selezione della funzione del tasto software*

Quando "◀" o "▶" è visualizzato accanto all'icona tasto, premendo [◀] o [▶] si scorrono le funzioni del tasto software. Quando si preme una volta [◀] o [▶], si scorrono 4 funzioni contemporaneamente.



* Le funzioni dei tasti potrebbero essere diverse, a seconda della versione del ricetrasmettitore.

■ Microaltoparlante

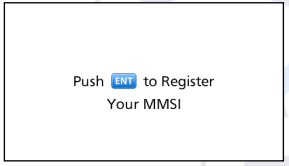


■ Inserimento del codice MMSI

Prima di tutto è necessario inserire il codice MMSI di 9 cifre (Identificativo del Servizio Mobile Marittimo o: autoidentificazione DSC) con il dispositivo su ON.

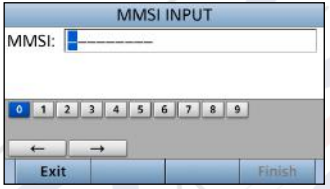
Il codice iniziale può essere inserito solo una volta.
Se il codice MMSI è già stato inserito, non è necessario eseguire i passaggi seguenti.

1. Tenere premuto [⏻] per 1 secondo per mettere il ricetrasmettitore su ON.
   - Vengono emessi tre brevi segnali acustici.
   - Viene visualizzato “Push [ENT] to Register Your MMSI”.
2. Premere [ENT] per accedere alla modalità di inserimento codice MMSI.



Premere ENT

   - Premere [CLR] per annullare il dato inserito. In questo caso, il ricetrasmettitore visualizza nuovamente “Push [ENT] to Register Your MMSI”.
3. Inserire il proprio codice MMSI a 9 cifre.



Premere 1 2 3 / 4 5 6 / 7 8 9 / 10 0 20 + Ruotare CH/ENT

4. Dopo aver inserito la 9ª cifra, premere [Finish] (—) per impostare l’ID.

Premere (—)

5. Reinserire il codice MMSI per confermare.

Premere 1 2 3 / 4 5 6 / 7 8 9 / 10 0 20 + Ruotare CH/ENT

6. Dopo aver inserito la 9ª cifra, premere [Finish] (—) per registrare l’ID.

Premere (—)

   - Dopo aver inserito con successo il codice MMSI, viene visualizzata la schermata seguente.

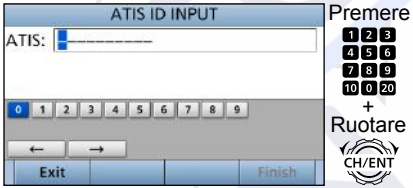
   - Di seguito, viene visualizzata la schermata principale. Il codice MMSI registrato viene visualizzato in alto nello schermo.

■ Inserimento del codice ATIS

L'ID del sistema di identificazione automatica del trasmettitore (ATIS) è composto da 10 cifre. È possibile inserire l'ID alla voce "ATIS ID Input" nella schermata Menu.

Questo inserimento dell'ID può essere fatto solo una volta.
Se l'ID ATIS è già stato inserito, eseguire i punti seguenti non è necessario.

1. Premere [MENU].
2. Selezionare "ATIS ID Input" quindi premere [ENT].
3. Inserire il codice ATIS a 10 cifre.



4. Dopo aver inserito la 10ª cifra, premere [Finish] [−] per impostare l'ID.

5. Reinserire il codice ATIS per confermare.

6. Dopo aver inserito la 10ª cifra, premere [Finish] [−] per registrare l'ID.

- Dopo aver inserito con successo il codice ATIS, viene visualizzata la schermata seguente.

■ Trasmissione e ricezione

ATTENZIONE: NON trasmettere senza un'antenna. Ciò danneggerà il ricetrasmettitore.

1. Tenere premuto [⏻] per 1 secondo per mettere il ricetrasmettitore su ON.
   ⓘ Se non viene immesso un codice MMSI, "Push [ENT] to Register your MMSI" viene visualizzato.
2. Ruotare [VOL/SQL] per regolare il livello dell'audio.
3. Premere [VOL/SQL] una o due volte per aprire la finestra "SQL Setting", quindi ruotare [VOL/SQL] per regolare il livello dello squelch fino a far appena scomparire il rumore.
4. Selezionare un canale.

ⓘ **Informazioni**
- Quando si riceve un segnale, viene visualizzato "BUSY".
- È possibile utilizzare il Canale 70 solo per le trasmissioni di Chiamata selettiva digitale (DSC).
- Quando "FAV on MIC" è impostato su "OFF", è possibile selezionare tutti i canali usando i tasti [▲] o [▼] sul microfono.

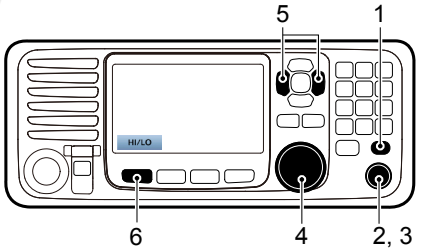
5. Premere [◀] o [▶] fino a visualizzare "HI/LO" nell'area tasti software.
6. Premere [HI/LO] [—] per selezionare una potenza di uscita alta o bassa.

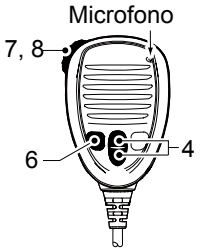
ⓘ **Informazioni**
- "25W" viene visualizzato quando viene selezionata una potenza alta. Scegliere l'alta potenza per le comunicazioni a maggiore distanza.
- "1W" viene visualizzato quando viene selezionata una potenza bassa. Scegliere la bassa potenza per le comunicazioni a breve distanza.
- Alcuni canali sono limitati alla bassa potenza.

7. Tenere premuto [PTT], quindi parlare a un normale tono di voce.
   • Viene visualizzato "TX".
8. Rilasciare [PTT] per tornare alla ricezione.

IMPORTANTE: Per ottimizzare la leggibilità del proprio segnale presso la stazione ricevente, fare un secondo di pausa dopo aver premuto [PTT], poi tenere il microfono a una distanza tra 5 e 10 cm dalla bocca e parlare a un livello di voce normale.

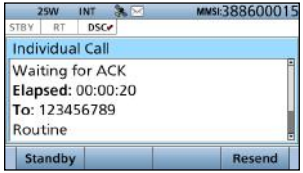
NOTA per la funzione Timer di time-out (TOT):
La funzione TOT impedisce la trasmissione continua oltre un periodo di tempo preimpostato dall'inizio della trasmissione stessa. 10 secondi prima dell'interruzione della trasmissione, viene emesso un segnale acustico per indicare che la trasmissione sarà interrotta e "TOT" lampeggia nel campo del nome canale. Dopo che viene portata su OFF, "TIME OUT" viene visualizzato per 10 secondi. E non è possibile trasmettere finché "TIME OUT" non scompare.





■ Modalità Compito DSC

Dopo che è stata inviata o ricevuta una chiamata DSC, il ricetrasmettitore entra in modalità compito DSC.



(Esempio: After transmitting an Individual call)

In modalità Compito, è possibile rinviare la chiamata o inviare un riconoscimento alla stazione del chiamante, e così via.

NOTA: la modalità compito ha una funzione Timer di time-out (TOT). Se non vengono premuti tasti per un periodo di tempo preimpostato, il ricetrasmettitore esce automaticamente dalla modalità Compito. Un allarme conto alla rovescia suona per 10 secondi prima che il TOT si attivi. Nessun allarme conto alla rovescia suona prima che il TOT del Radio Telefono si attivi. È possibile impostare la funzione TOT nel menu INACTIVITY TIMER.

Le impostazioni predefinite della funzione TOT:

- Chiamata di Emergenza: OFF
- Chiamata non di emergenza: 15 minuti

◇ Funzioni dei tasti software

Quando si entra in modalità Compito, vengono visualizzate per prime le seguenti funzioni.

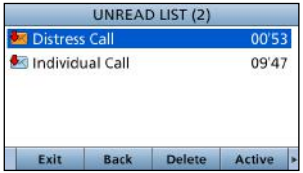
FUNZIONE	DESCRIZIONE
Standby	Premere per eliminare l'attività e ritornare alla schermata principale.
Resend	Premere per rinviare la chiamata.

A seconda del tipo di chiamata, potrebbero essere visualizzate le seguenti funzioni.

FUNZIONE	DESCRIZIONE
Cancel	Premere per inviare una chiamata Annulla.
Pause	Premere per mettere in pausa la modalità 'Call repeat' o mettere in pausa il conto alla rovescia.
Resume	Premere per riprendere il conto alla rovescia.
Finish	Premere per uscire dalla schermata di dichiarazione annullamento emergenza.
History	Premere per visualizzare la schermata della cronologia delle chiamate di emergenza.
ACK/ ACK (able)	Premere per inviare un riconoscimento senza alcun cambiamento.
ACK (unable)	Premere per inviare un riconoscimento, ma non è possibile effettuare una comunicazione.
ACK (New CH)	Inviare un riconoscimento. È possibile specificare il canale della comunicazione vocale.

◇ Elenco non lette

Se il ricetrasmettitore non ha letto le chiamate DSC, è possibile accedere al menu UNREAD LIST premendo [Unread List] [—].



ⓘ Premere [Active] [—] per accedere alla modalità compito.

ⓘ Premere [Info] [—] per visualizzare i dettagli del compito selezionato.

ITALIANO

■ Invio di una chiamata di Emergenza

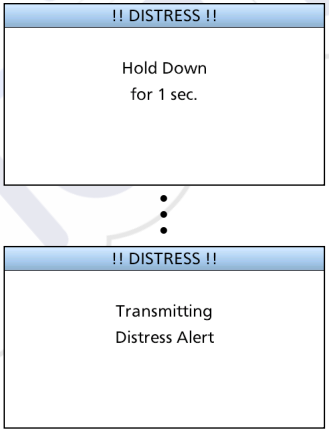
MAI INVIARE UNA CHIAMATA D'EMERGENZA SE L'IMBARCAZIONE O UNA PERSONA NON È IN PERICOLO. LA CHIAMATA D'EMERGENZA DEVE ESSERE FATTA SOLO QUANDO È INDISPENSABILE L'IMMEDIATO SOCCORSO.

Effettuare una chiamata di Emergenza solo se, secondo il Comandante, l'imbarcazione o una persona si trovano in stato di emergenza e richiedono soccorso immediato.

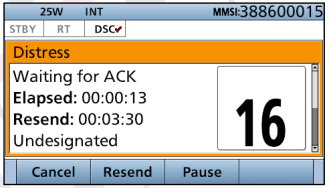
ⓘ Il canale di Emergenza (Canale 70) viene selezionato automaticamente per l'invio della chiamata di Emergenza.

◇ Chiamata semplice

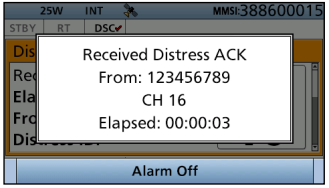
1. Verificare che nessuna chiamata di Emergenza sia in fase di ricezione.
2. Sollevare il coperchio, poi tenere premuto [DISTRESS] finché non appare la scritta“Transmitting” per effettuare una chiamata di Emergenza.
   - Mentre si tiene premuto [DISTRESS], viene emesso un segnale acustico di conto alla rovescia e sia il tasto sia la retroilluminazione del display lampeggiano.



3. Dopo l’invio apparirà la seguente schermata.



   - Il Canale 16 viene selezionato automaticamente.
4. Quando si riceve il riconoscimento:
   - L'allarme suona.
   - Viene visualizzata la seguente finestra.



5. Premere un tasto [Alarm Off] [—].
6. Premere un tasto [Close Call RCVD Window] [—].
7. Tenere premuto [PTT] per comunicare la propria situazione.
8. Premere [Standby] [—] per ritornare alla schermata Principale.

■ Invio di una chiamata non di Emergenza

Per garantire il corretto funzionamento della funzione DSC, confermare di aver impostato correttamente il livello di squelch del Canale 70.

NOTA:
- Il canale di emergenza (Canale 70) viene selezionato automaticamente per la chiamata.
- Se il Canale 70 è occupato, il ricetrasmettitore rimane in attesa fino a quando il canale non si libera.

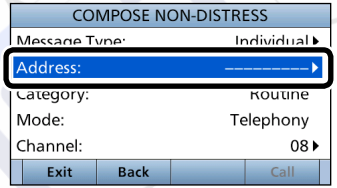
◇ Invio di una chiamata individuale

La funzione di chiamata individuale permette di trasmettere un segnale DSC solo a una specifica stazione costiera o imbarcazione. Dopo la trasmissione, è necessario attendere il riconoscimento da parte della stazione ricevente. Potrete comunicare a voce dopo aver ricevuto il riconoscimento "Prontl a procedere".

1. Premere [Compose Other] per visualizzare la schermata COMPOSE NON-DISTRESS.

Premere

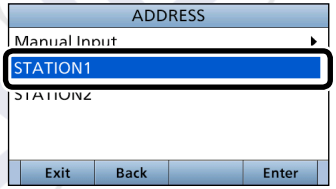
ⓘ Per visualizzare la schermata dalla schermata Menu:
([MENU] > **Compose Non-Distress**)



Premere ENT

2. Premere [ENT].

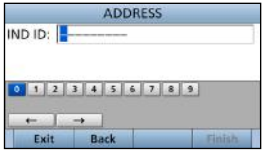
3. Selezionare il singolo indirizzo o “Manual Input”, quindi premere [ENT].



Ruotare CH/ENT + Premere ENT

(Esempio: STATION1)

Quando si seleziona “Manual Input” al passaggio 3, premere il tastierino numerico per inserire manualmente l’ID individuale che si desidera chiamare.

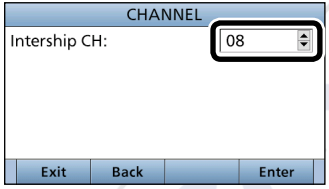


ITALIANO

■ Invio di una chiamata non di Emergenza (segue)

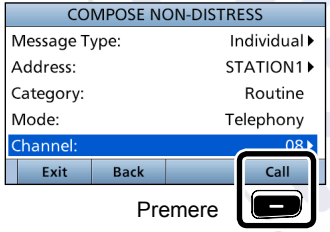
Quando si seleziona una stazione costiera nel passaggio 3, il canale vocale viene specificato automaticamente dalla stazione costiera. Saltare quindi i passaggi 4 e 5 e andare al passaggio 6.

4. Selezionare “Channel”, quindi premere [ENT].
5. Selezionare il canale vocale, quindi premere [ENT].



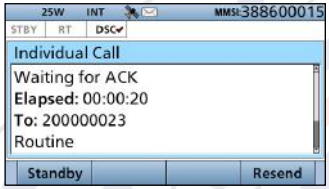
Ruotare CH/ENT + Premere ENT

6 Premere [Call] (—) per inviare la chiamata individuale.

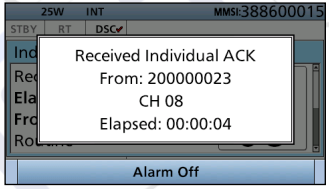


Premere (—)

7. Dopo l’invio, viene visualizzata la seguente schermata.



8. Quando si riceve il riconoscimento:
   • L’allarme suona.
   • Viene visualizzata la seguente schermata.
   (Esempio: ACK (Able))



9. Premere un tasto [Alarm Off] (—).
10. Premere un tasto [Close Call RCVD Window] (—).

Se si riceve il messaggio “ACK (Unable)” nel passaggio 8, saltare il passaggio 11 e andare al passaggio 12.

11. Tenere premuto [PTT] per comunicare.
12. Premere [Standby] (—) per tornare alla schermata principale.

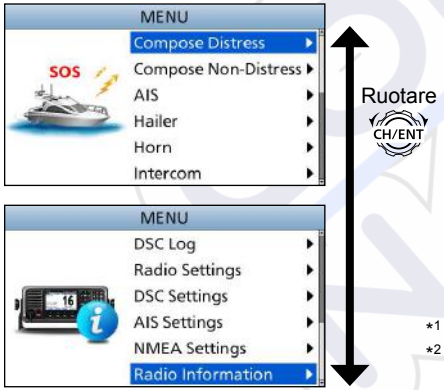
NOTA:
Dopo la ricezione del riconoscimento:
• Il canale vocale specificato nel passaggio 5 viene selezionato.
• Se la stazione chiamata non può utilizzare il canale, viene selezionato un canale vocale diverso.

È possibile utilizzare la schermata MENU per impostare valori o funzioni raramente modificati.

■ Struttura

La schermata MENU è costituita da una stuttura ad albero.
È possibile passare al livello sucessivo con [ENT], o tornare indietro di un livello con [CLR].
Vedi pagina successiva per maggiori informazioni.

Per selezionare una voce, ruotare [CH/ENT].



Compose Distress
Nature of Distress
Position
• Latitude • Longitude • UTC

Compose Non-Distress
Message Type
Address*1
Position*1
• Latitude*1 • Longitude*1 • UTC*1
Category
Mode*1
Channel*1

AIS

Hailer

Horn
Manual Horn
Auto Foghorn
Frequency

Intercom*2
RADIO
SUB UNIT 1, 2, 3

GPS Information

AquaQuake

Configuration
Key Beep
Key Assignment
UTC Offset
Inactivity Timer
• Not DSC Related • DSC Related • Distress Related • RT Related
Speaker
• Internal • Int. and ext.
Noise Cancel
• RX • TX
Power SW from Sub Unit
• All Units • Own Unit

*1 Questa voce potrebbe non essere visualizzata, a seconda del tipo di messaggio.
*2 Visualizzato quando il microfono comando o la stazione di comando remoto opzionali sono connessi al ricetrasmettitore.

■ Struttura (Continua)

DSC Log
Received Call Log
Transmitted Call Log

Radio Settings
Scan Type*2
Scan Timer*2
Dual/Tri-Watch*2
Channel Group
Call Channel
Voice Scrambler*3
Voice Record
FAV Settings
FAV on MIC
Channel Display

DSC Settings
Position Input*1
Individual ID
Group ID
Auto ACK
CH Auto Switch
DSC Data Output
Alarm Status
• Safety • Routine
• Warning
• Self-Terminate • Discrete
CH 70 SQL Level
Self Check Test

AIS Settings
North Up/COG Up
CPA/TCPA
ID Blocking

NMEA Settings
NMEA0183
• Port 1, Port 2
NMEA2000
• GPS, AIS

Radio Information

*1 Non visualizzato quando vengono ricevuti dati GPS validi.
*2 Non utilizzabile nella versione olandese.
*3 Visualizzato solo se l'unità scrambler della voce è installata.

■ Selezione di una voce del Menu

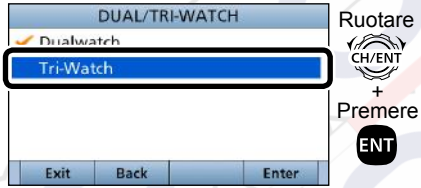
Seguire le procedure descritte di seguito per selezionare una voce di menu.

Esempio: impostare la funzione Tri-watch.

1. Premere [MENU] per visualizzare la schermata MENU.
2. Ruotare [CH/ENT] per selezionare “Radio Settings”, quindi premere [ENT].

3. Ruotare [CH/ENT] per selezionare “Dual/Tri-Watch”, quindi premere [ENT].

4. Ruotare [CH/ENT] per selezionare “Tri-Watch”, quindi premere [ENT].



- Imposta la funzione Tri-watch, quindi torna alla schermata RADIO SETTINGS, dopo aver premuto [ENT].

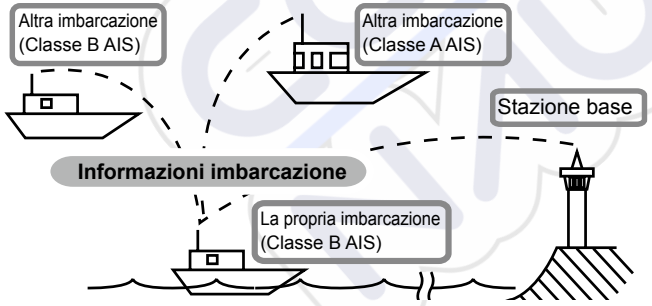
5. Premere [MENU] per ritornare alla schermata principale.

6 RICEVITORE AIS

■ Info su AIS

Il sistema di identificazione automatica (AIS) è utilizzato principalmente per la gestione del rischio collisione e per la sicurezza nella navigazione. Trasmette e riceve automaticamente le informazioni dell'imbarcazione, quali il nome dell'imbarcazione, il codice MMSI, il tipo di imbarcazione, i dati di posizione, la velocità, la rotta, la destinazione e altro ancora. Le informazioni sono scambiate tra le imbarcazioni e/o le stazioni base sulla banda mobile VHF marittima. Le informazioni aiutano a identificare altre imbarcazioni o stazioni nelle vicinanze, visualizzando i dati ricevuti su un plotter o una schermata radar.

NOTA per la funzione ricevitore AIS:
Non tutte le imbarcazioni sono dotate di trasmettitori AIS, pertanto i ricevitori AIS non sostituiscono il monitoraggio visivo. Soprattutto mentre il ricetrasmettitore marino VHF trasmette sulla stessa banda di frequenza sulla stessa imbarcazione, i segnali AIS trasmessi da altre imbarcazioni potrebbero essere soppressi e non visualizzati sullo schermo.



■ Classi AIS

Ci sono 7 tipi di stazioni AIS: imbarcazioni, stazioni base, ricerca e soccorso (SAR), assistenza alla navigazione (AtoN), trasmettitore ricerca e soccorso (AIS-SART), uomo in mare (MOB) e Radio Beacon-AIS che indica una posizione di emergenza (EPIRB-AIS).

Ci sono 2 classi di unità AIS, che sono installate sulle imbarcazioni, Classe A e Classe B.

In base alla Convenzione internazionale sulla salvaguardia della vita umana in mare (SOLAS), a tutte le imbarcazioni SOLAS, come descritto di seguito, viene richiesto di installare un transponder AIS di Classe A:

- Oltre 300 tonnellate lorde impegnate nella navigazione internazionale.
- Imbarcazioni passeggeri, a prescindere dalle dimensioni, impegnate nella navigazione internazionale.
- Oltre 500 tonnellate lorde non impegnate nella navigazione internazionale.

Un transponder AIS di classe B è progettato per l'interoperabilità con le unità di Classe A, ma senza interferire con la rete di Classe A.
Molte imbarcazioni commerciali, e alcune da diporto, non classificate come richiedenti un'unità di Classe A, hanno scelto di installare un'unità di Classe B per evitare incidenti in mare.

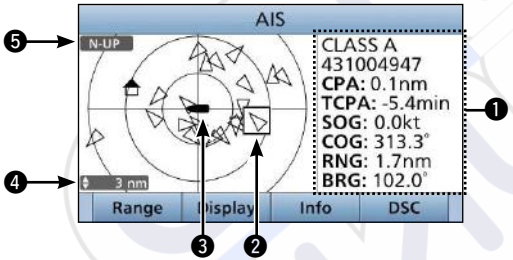
■ Display delle funzioni

Ci sono 3 tipi di display delle funzioni: plotter, elenco destinazioni ed elenco pericoli. Selezionare il tipo di display utilizzando il tasto [Display].

1. Premere [MENU].
2. Selezionare “AIS”, quindi premere [ENT].
   • Viene visualizzata la schermata Plotter.

◇ Schermata Plotter

Se il GPS è connesso e riceve segnali da un satellite, la schermata Plotter mostra il range di visualizzazione e le icone delle destinazioni AIS.



❶ INFORMATION
Visualizza le informazioni della destinazione selezionata.

❷ TARGET BOX
Visualizza la destinazione AIS selezionata.
ⓘ Quando una casella di destinazione è visualizzata, premere [ENT] per visualizzare la schermata dettagli della destinazione AIS selezionata.

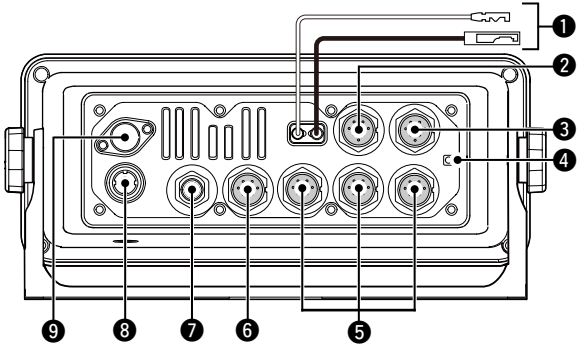
❸ YOUR VESSEL ICON
Visualizzato al centro dello schermo.
ⓘ Quando “N-UP” è visualizzato, l’icona imbarcazione indica automaticamente la direzione che si sta seguendo, in passi di 45 gradi.
ⓘ Quando “COG-UP” è visualizzato, l’icona imbarcazione indica costantemente la parte superiore della schermata del plotter.
ⓘ Quando l’imbarcazione si muove a meno di 2 nodi, l’icona “ ● ” viene visualizzata.

❹ DISPLAY RANGE
Visualizza il range del display selezionato.
Premere [Range] per selezionare il range del display.
ⓘ 0,125, 0,25, 0,5, 0,75, 1,5, 3, 6, 12, 24 nm (miglia nautiche) sono selezionabili.

❺ DISPLAY TYPE
Visualizza il tipo di display selezionato. È possibile selezionare il tipo di display dalla schermata menu.
ⓘ Quando “N-UP” è visualizzato, la parte superiore della schermata del plotter rappresenta il nord.
ⓘ Quando “COG-UP” è visualizzato, la parte superiore della schermata del plotter rappresenta la direzione verso cui è indirizzata la rotta.

CONNESSIONI E ACCESSORI IN DOTAZIONE

■ Connessioni



❶ CONNETTORE ALIMENTAZIONE CC
Connette a una fonte di alimentazione 13,8 V CC.
(+: Rosso, –: Nero)

ATTENZIONE: dopo aver connesso il cavo di alimentazione CC, i cavi NMEA, i cavi dell'altoparlante esterno e i cavi del megafono, coprire il connettore e i cavi con nastro adesivo, come mostrato di seguito, per evitare che l'acqua penetri nella connessione.

❷ CONNETTORE MICROFONO
Connette il microfono in dotazione o opzionale HM-205.*
*Non utilizzabile quando il microfono è connesso al connettore sul pannello frontale.

❸ CONNETTORE ALTOPARLANTE ESTERNO
Connette L'ALTOPARLANTE AVVISATORE ACUSTICO opzionale SP-37.

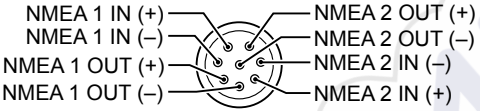
Vista pannello posteriore del ricetrasmettitore

❹ GROUND TERMINAL
Connette alla messa a terra dell'imbarcazione per evitare scosse elettriche e interferenze provenienti da altre apparecchiature.
Utilizzare una vite autofilettante: (3 × 6 mm: non in dotazione).

❺ CONNETTORE MICROFONO COMANDO/ STAZIONE DI COMANDO REMOTO
Connette il microfono comando* o la stazione di comando remoto opzionali.
*Il CAVO DI CONVERSIONE OPC-2384 è richiesto.

❻ NMEA 0183 CONNECTORS

- Connette alle linee di uscita NMEA 0183 di un PC o a un dispositivo di navigazione compatibile con DSC o DSE per il formato frase NMEA 0183, per ricevere i dati posizione da altre imbarcazioni.
- Connette alle linee di ingresso NMEA 0183 di un ricevitore GPS per i dati posizione.
  - Un ricevitore GPS compatibile con il formato RMC, GGA, GLL o GNS e le frasi VTG NMEA 0183 è richiesto. Chiedere al proprio rivenditore riguardo ai ricevitori GPS compatibili.



Vista pannello posteriore del ricetrasmettitore

❼ NMEA 2000 CONNECTOR

Connette alla rete NMEA 2000.

❽ GPS ANTENNA CONNECTOR

Connette l'antenna GPS in dotazione.

NOTA: assicurarsi che l'antenna GPS sia posizionata dove abbia una visuale libera per ricevere segnali dai satelliti.

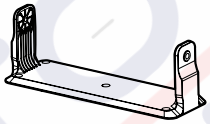
❾ ANTENNA CONNECTOR

Connette a un'antenna VHF marino tramite un connettore PL-259.

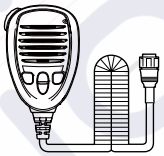
ATTENZIONE: la trasmissione senza un'antenna potrebbe danneggiare il ricetrasmettitore.

■ Accessori in dotazione

Staffa di support

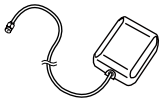


Microfono



Portamicrofono e viti (3×16 mm)

Antenna GPS



Per la staffa di montaggio

Bulloni delle manopole

Rondelle piane (M5)

Viti (M5×20 mm)

Rondelle elastiche (M5)

Viti (5×20 mm)

Dadi (M5)

Spugne

Connettori accessori

6 pin 8 pin

Cavo di alimentazione DC (OPC-1174A)*1

*1 Utilizzare per la verifica di funzionamento. (Solo DC 12 V)

ITALIANO

8 SPECIFICHE ED OPZIONI

■ Specifiche
(In base a EN301 025)

Tutte le specifiche possono variare senza alcun avviso o obbligo.

◇ Generali
- Copertura frequenze: TX 156,000 ~ 161,600 MHz
  RX 156,000 ~ 163,425 MHz
  156,525 MHz (CH70/DSC)
- Modalità: FM (16K0G3E), DSC (16K0G2B)
- Intervallo temperature di funzionamento: –20 °C ~ +60 °C
- Assorbimento di corrente: TX elevata (25 W) 6,0 A massimo
  RX Audio massimo 8,0 A massimo*
- Requisiti di alimentazione: 13,8 V CC nominale (massa negativa)
- Impedenza antenna: 50 Ω nominale
- Dimensioni (sporgenze non incluse): 274 (L) × 114 (A) × 121,5 (P) mm
- Peso (approssimativo): 1,5 kg

*Quando le opzioni (3 microfoni di comando, altoparlante megafono e altoparlante esterno) sono connesse.

◇ Trasmettitore
- Potenza di uscita: 25 W o 1 W
- Sistema di modulazione: modulazione di frequenza a reattanza variabile
- Deviazione massima della frequenza: ±5 kHz
- Errore di frequenza: meno di ±0,5 kHz
- Emissioni spurie: meno di 0,25 µW
- Potenza canale adiacente: Superiore a 70 dB
- Distorsione armonica audio: meno del 10% (a 60% di deviazione)
- Modulazione residua: superiore a 40 dB
- Risposta frequenza audio: +1 ~ –3 dB di 6 dB/range ottava da 300 Hz a 3000 Hz

◇ Ricevitore
- Sensibilità:
  FM: –5 dBµ emf (tipica) (20 dB SINAD)
  DSC (CH70): –3 dBµ emf (tipica) (1% BER)
- Sensibilità squelch: meno di –2 dBµ emf
- Intermodulazione:
  FM: superiore a 75 dB
  DSC (CH70): superiore a 73 dBµ emf (1% BER)
- Risposta spuria:
  FM: superiore a 75 dB
  DSC (CH70): superiore a 73 dBµ emf (1% BER)
- Selettività canale adiacente:
  FM: superiore a 75 dB
  DSC (CH70): superiore a 80 dBµ emf (1% BER)
- Potenza di uscita audio: superiore a 15 W a una distorsione del 10% con un carico di 4 Ω
- Ronzio e rumore: Superiore a 40 dB
- Risposta frequenza audio: +1 ~ –3 dB di –6 dB/range ottava da 300 Hz a 3000 Hz

■ Opzioni

◇ Stazione di comando remoto e cavi di comando

• **STAZIONE DI COMANDO REMOTO RC-M600**
La stazione di comando remoto con lo stesso pannello frontale del ricetrasmettitore. Staffa di montaggio, microfono e cavo di connessione di 10 metri incluso.

• **CAVO DI CONTROLLO OPC-2383***
Cavo di 10 metri per connettere il ricetrasmettitore e la STAZIONE DI COMANDO REMOTO RC-M600.
*Lo stesso cavo di quello in dotazione con RC-M600.

• **CAVO DI PROLUNGA OPC-2377**
Cavo di prolunga di 10 metri.

◇ Microfono e cavi

• **HM-229B/HM-229W COMMANDMICV™**
Dispositivo di controllo esterno di tipo microfono. Fornisce il funzionamento del citofono opzionale. Cavo del microfono di 6 metri e base di montaggio inclusi.
HM-229B: Nero
HM-229W: Bianco

• **CAVO DI CONVERSIONE OPC-2384**
Il cavo per connettere il ricetrasmettitore e HM-229 COMMANDMICV™.

• **CAVO DI PROLUNGA DEL MICROFONO OPC-1541**
Cavo di prolunga del microfono di 6 metri per HM-229 COMMANDMICV™ opzionale. Fino a due OPC-1541 possono essere connessi. La lunghezza utile è di 18 metri al massimo.

• **Microfono altoparlante** HM-205RB
Dotato di tasti [▲]/[▼] (canale su/giù), [H/L], [16/C] e [PTT], un altoparlante e un microfono.

◇ Altri

• **ALTOPARLANTE AVVISATORE ACUSTICO SP-37**
L'altoparlante avvisatore acustico esterno. Connettere utilizzando il connettore a 6 pin accessorio in dotazione fornito con il ricetrasmettitore.

• **TRANSPONDER CLASSE B AIS MA-510TR**
Per trasmettere chiamate individuali DSC a una destinazione AIS selezionata.

• **KIT DI MONTAGGIO A INCASSO MB-75**
Per montare il ricetrasmettitore in un pannello.

• **ANTENNA GNSS UX-241***
Per ricevere il segnale GPS.
*La stessa antenna GPS di quella in dotazione con il ricetrasmettitore.

• **UNITÀ SCRAMBLER VOCE UT-112**
Garantisce comunicazioni private. 32 codici sono disponibili. Non disponibile in alcuni Paesi.
Chiedere al proprio centro di assistenza o al rivenditore tecnico per ulteriori informazioni sull'installazione.

■ ÜBER CE UNDKONFORMITÄTSERKLÄRUNG

Hiermit erklärt Icom Inc., dass die Versionen des IC-M605EURO, die das „CE“- Symbol auf dem Produkt haben, den grundlegenden Anforderungen der Funkgeräterichtlinie 2014/53/EU und der Richtlinie zur Beschränkung der Verwendung bestimmter gefährlicher Stoffe in Elektro- und Elektronikgeräten, 2011/65/EU, entsprechen.
Der vollständige Wortlaut der EU-Konformitätserklärung ist unter der folgenden Internetadresse verfügbar:
https://www.icomjapan.com/support/

■ ACERCA DE CE Y LA DDC

Por el presente documento, Icom Inc. declara que las versiones del IC-M605EURO que tienen el símbolo “CE” en el producto cumplen con los requisitos esenciales de la Directiva de Equipos de Radio 2014/53/UE y con la restricción del uso de ciertas sustancias peligrosas en los equipos eléctricos y electrónicos de la Directiva 2011/65/UE. El texto completo de la declaración de conformidad de la UE se encuentra disponible en la siguiente dirección de Internet:
https://www.icomjapan.com/support/

■ INFORMATIONS CE ET DOC

Par la présente, Icom Inc. déclare que les versions de l'IC-M605EURO qui ont le symbole « CE » sur le produit sont conformes aux exigences essentielles de la directive sur les équipements radio 2014/53/ UE et à la limitation de l'utilisation de certaines substances dangereuses selon la directive sur les équipements électriques et électroniques 2011/65/UE. Le texte intégral de la déclaration de conformité UE est disponible à l'adresse internet suivante:
https://www.icomjapan.com/support/

■ INFORMAZIONI SU CE E SULLA DDC

Il fabbricante, Icom Inc., dichiara che le versioni dell'IC-M605EURO che hanno il simbolo "CE" sul prodotto sono conformi ai requisiti essenziali della Direttiva sulle apparecchiature radio, 2014/53/UE e alla limitazione dell'uso di determinate sostanze pericolose nella Direttiva sulle apparecchiature elettriche ed elettroniche, 2011/65/UE. Il testo completo della Dichiarazione di conformità UE è disponibile al seguente indirizzo Internet:
https://www.icomjapan.com/support/

Si comunica che il presente apparato può essere utilizzato in accordo a quanto previsto dal Piano Nazionale Ripartizione delle Frequenze di cui al decreto 27 maggio 2015 come ricetrasmettitore VHF, per il servizio mobile marittimo.
Come stabilito dal decreto legislativo 1° agosto 2003, n. 259 (Codice delle Comunicazioni Elettroniche), modificato con dL.gs 28 maggio 2012 n. 70, l'esercizio della stazione radio comprendente l'apparato in questione è subordinato al possesso dellla relativa licenza d'esercizio.
Si fa presente inoltre che tale apparato non può essere utilizzato sui canali VHF diversi da quelli stabiliti dal sistema di canalizzazione internazionale (appendice 18 del regolamento delle radiocomunicazioni).
Tale apparato può essere utilizzato a bordo di imbarcazioni per la navigazione interna.

How the World Communicates

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