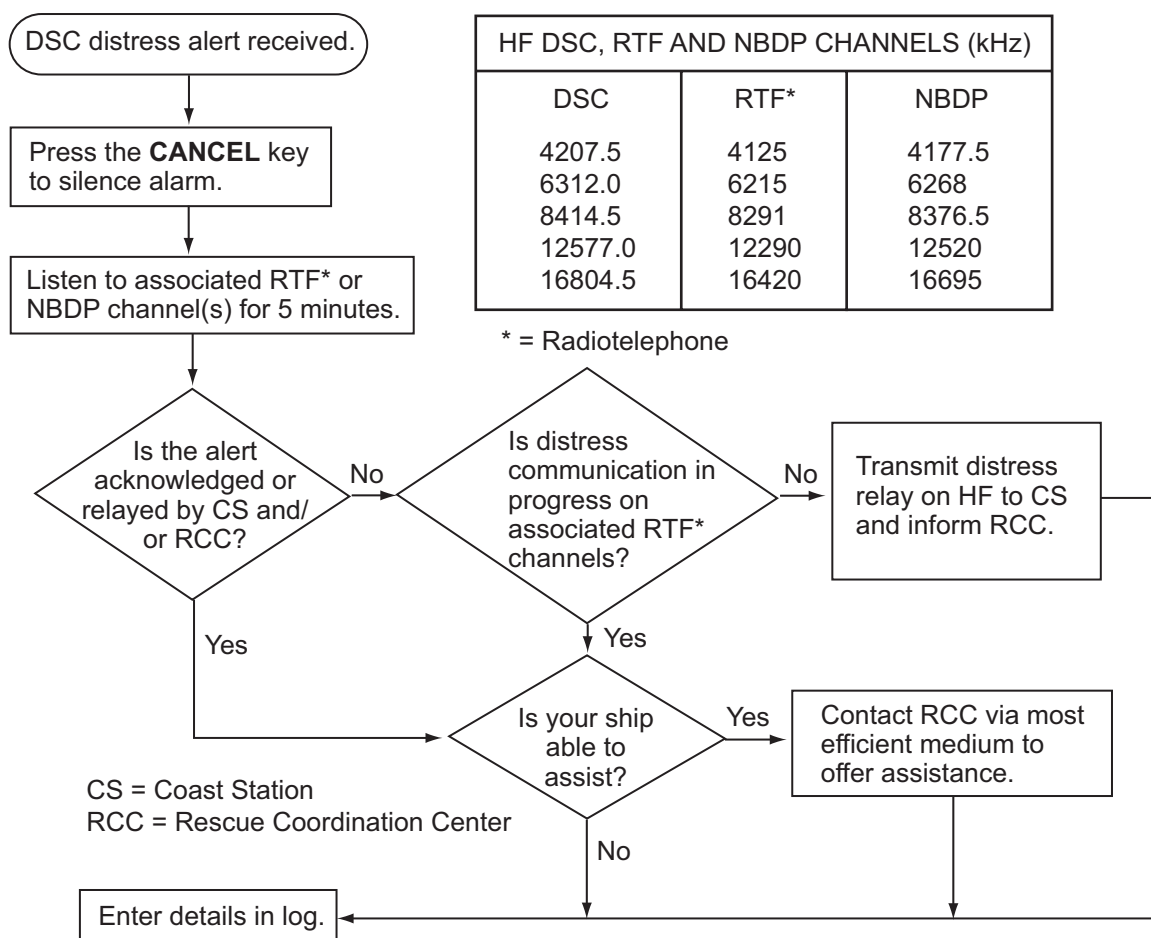


- Relay the distress alert in the following cases:
 - You have not received a distress acknowledge call from a coast station within five minutes after receiving a distress call.
 - You have not received a distress relay from other ship.
 - You cannot receive distress communications from other ship over radiotelephone.
 - The ship relaying the distress alert should establish communications with the station controlling the distress as directed and render such assistance as required and appropriate.
- If it is clear the ship or persons in distress are not near your ship and/or other vessels are better placed to assist, superfluous communications which could interfere with search and rescue activities should be avoided. Details should be recorded in the log.
- When the received distress frequency is different from the current communication frequency, do the following:
 1. Rotate the **ENTER** knob to select [CHANGE] then push the knob.
 2. Rotate the **ENTER** knob to select the frequency same as the received distress one then push the knob.

Action for ship receiving distress alert on HF band

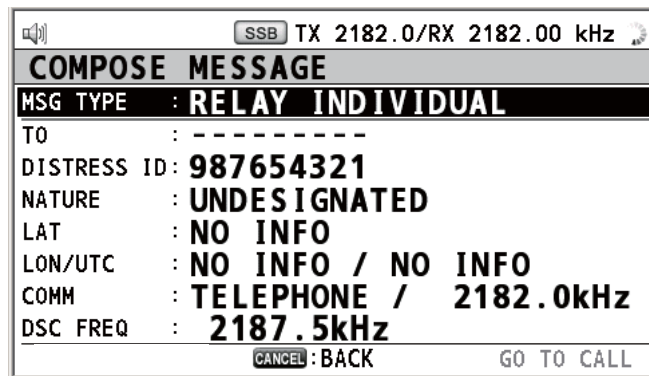


4. DSC DISTRESS OPERATIONS

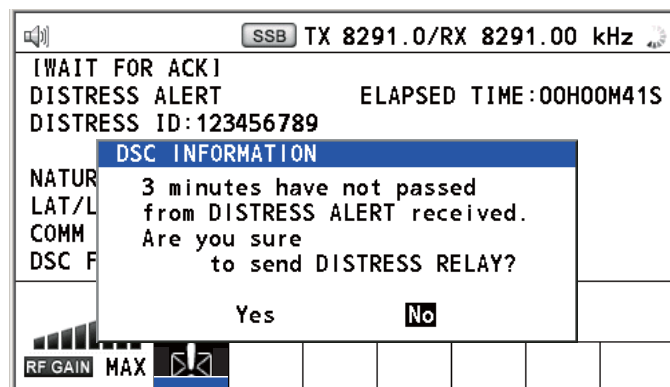
Send the distress relay to coast station (on HF band)

When you receive a distress alert from a ship in distress, the audio alarm sounds and the LED flashes in red. The icon for DISTRESS receiving (📞) appears in the tab area and the pop-up message appears on the screen.

1. Press the **CANCEL** key to silence the audio alarm and stop the flashing of the LED.
2. Rotate the **ENTER** knob to select [RELAY] in the user options area then push the knob.



If three minutes have not passed after receiving the distress alert from the ship in distress, the following message appears on the screen. If you are sure to acknowledge the distress call, rotate the **ENTER** knob to select [Yes] then push the knob to erase the pop-up message and show the above screen.



3. With [RELAY INDIVIDUAL] selected, push the **ENTER** knob.
4. With [TO] selected, push the **ENTER** knob.
5. Rotate the **ENTER** knob to select [DIRECT INPUT] or [ADDRESS BOOK DATA] then push the knob.
[ADDRESS BOOK DATA]: Select a MMSI from the [ADDRESS BOOK] (see section 6.15) then push the **ENTER** knob.
[DIRECT INPUT]: Enter the MMSI of the coast station, where to send the distress relay, with the numeric keys then push the **ENTER** knob.
6. With [DSC FREQ] selected, push the **ENTER** knob.
7. Rotate the **ENTER** knob to select a frequency then push the knob. You should first select [8414.5 kHz].
8. With [GO TO CALL] selected, push the **ENTER** knob. The screen changes to the one for transmitting. After transmitting, the WAIT FOR ACK screen appears.

When you receive the distress relay individual acknowledgement from the coast station, the audio alarm sounds and a pop-up message appears. Press the **CANCEL** key to silence the alarm and erase the pop-up message. Communicate with the coast station by telephone, over the frequency specified. If you do not receive the distress acknowledgement from a coast station, select [RELAY] then push the **ENTER** knob to transmit the distress relay again, over a different frequency.

4.3 How to Send Distress Relay on Behalf of a Ship in Distress

4.3.1 How to send distress relay to coast station

You can send the distress relay to a coast station on behalf of a ship in distress in the following cases:

- You are near the ship in distress and the ship in distress cannot transmit the distress alert.
- When the master or person responsible for your ship considers that further assistance is necessary.

Note: Do not use the **DISTRESS** key to relay distress.

1. Press the **DISTRESS MSG** key and the **OTHER DSC MSG** key simultaneously to open the composing screen for the distress relay individual.

COMPOSE MESSAGE	
MSG TYPE	: RELAY INDIVIDUAL
TO	: -----
DISTRESS ID	: NO INFO
NATURE	: UNDESIGNATED
LAT	: NO INFO
LON/UTC	: NO INFO / NO INFO
COMM	: TELEPHONE / 2182.0kHz
DSC FREQ	: 2187.5kHz
CANCEL: BACK GO TO CALL	

2. With [TO] selected, push the **ENTER** knob.
3. Rotate the **ENTER** knob to select [DIRECT INPUT] or [ADDRESS BOOK DATA] then push the knob.
 [ADDRESS BOOK DATA]: Select a MMSI from the [ADDRESS BOOK] (see section 6.15) then push the **ENTER** knob.
 [DIRECT INPUT]: Enter the MMSI of the coast station, where to send the distress relay, with the numeric keys then push the **ENTER** knob.
4. With [DISTRESS ID] selected, push the **ENTER** knob.

DIRECT INPUT
NO INFO

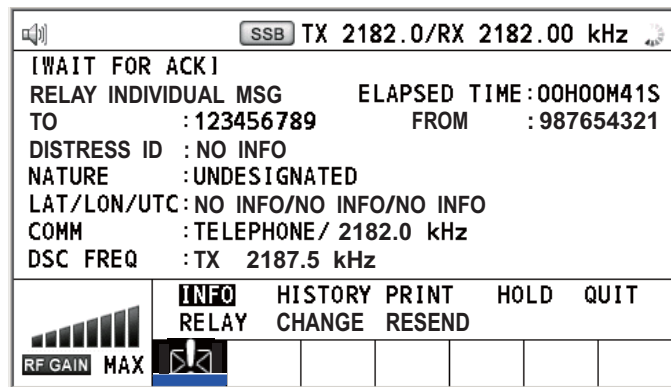
5. Rotate the **ENTER** knob to select [DIRECT INPUT] or [NO INFO] then push the knob. For [DIRECT INPUT], go to step 6. For [NO INFO], go to step 7.
6. Enter the ID (MMSI) of the ship in distress with the numeric keys then push the **ENTER** knob.
7. With [NATURE] selected, push the **ENTER** knob.

4. DSC DISTRESS OPERATIONS

8. Rotate the **ENTER** knob to select nature of distress then push the knob.
9. With [LAT] and [LON/UTC] selected, push the **ENTER** knob.



10. Rotate the **ENTER** knob to select [GNSS], [MANUAL] or [NO INFO] then push the knob. For [MANUAL], go to step 11. For others, go to step 12.
11. Use the numeric keys to enter latitude and longitude of the ship in distress. (If necessary, switch coordinates: **1** key to switch to North (East for longitude); **2** key to switch to South (West for longitude).) Push the **ENTER** knob. Also, enter the UTC time then push the **ENTER** knob.
12. With [COMM] selected, push the **ENTER** knob.
13. Rotate the **ENTER** knob to select [TELEPHONE] or [NBDP-FEC] then push the knob.
14. With [DSC FREQ] selected, push the **ENTER** knob.
15. Rotate the **ENTER** knob to select the frequency then push the knob.
16. With [GO TO CALL] selected, push the **ENTER** knob. The distress relay is transmitted to the coast station. After transmitting, the WAIT FOR ACK screen appears. The elapsed time since transmitting is displayed.

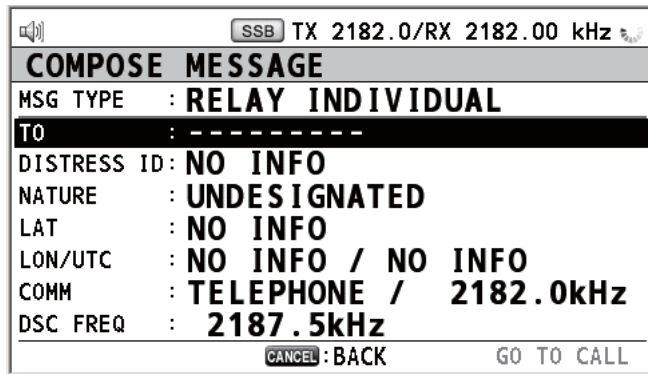


When you receive the distress relay individual acknowledgement from the coast station, the audio alarm sounds and the pop-up message "RELAY INDIVIDUAL ACK received! [CANCEL]: Stop alarm" appears. Press the **CANCEL** key to silence the alarm and erase the pop-up message. Communicate with the coast station by telephone, over the frequency specified. To close the distress receiving session, select [QUIT] in the user options area then push the **ENTER** knob.

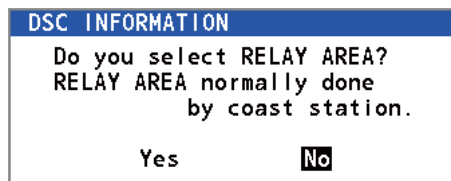
4.3.2 How to send distress relay to ships in your area

If a coast station directs you to send a distress relay to ships in your area, follow the procedure below. Do not transmit a distress relay unless directed to do so by a coast station.

1. Press the **DISTRESS MSG** key and the **OTHER DSC MSG** key simultaneously to open the screen for composing the distress relay individual.



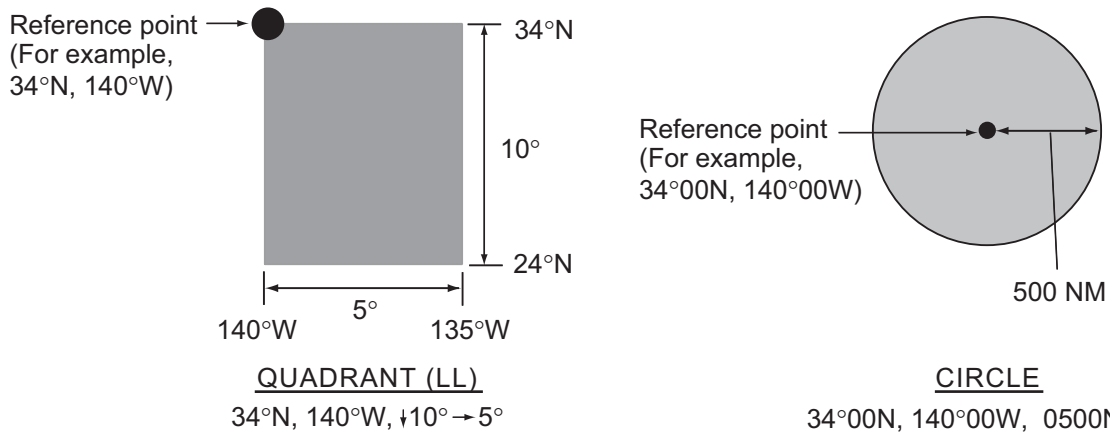
2. Rotate the **ENTER** knob to select [MSG TYPE] then push the knob.
3. Rotate the **ENTER** knob to select [RELAY AREA] then push the knob. The following message appears on the screen.



4. Rotate the **ENTER** knob to select [Yes] then push the knob.
5. With [AREA CR] selected, push the **ENTER** knob.



6. Rotate the **ENTER** knob to select [CIRCLE] or [QUADRANT] then push the knob.
7. Set the area with the numeric keys (see step 5 in paragraph 5.3.1). The geographical area call is for sending a call to all ships within the area you designated. In the figure below, for example, the call will be sent to all ships within 24-34°N, 135-140°W (QUADRANT (LL)) and 34°N, 140°W, range: 500 NM (CIRCLE).



8. With [DISTRESS ID] selected, push the **ENTER** knob.
9. Rotate the **ENTER** knob to select [DIRECT INPUT] or [NO INFO] then push the knob. For [DIRECT INPUT], go to step 10. For [NO INFO], go to step 11.
10. Enter the ID (MMSI) of the ship in distress with the numeric keys then push the **ENTER** knob.
11. With [NATURE] selected, push the **ENTER** knob.
12. Rotate the **ENTER** knob to select nature of distress then push the knob.
13. With [LAT] and [LON/UTC] selected, push the **ENTER** knob.

4. DSC DISTRESS OPERATIONS

14. Rotate the **ENTER** knob to select [GNSS], [MANUAL] or [NO INFO] then push the knob. For [MANUAL], go to step 15. For others, go to step 16.
15. Use the numeric keys to enter latitude and longitude of the ship in distress. (If necessary, switch coordinates: **1** key to switch to North (East for longitude); **2** key to switch to South (West for longitude).) Push the **ENTER** knob. Also, enter the UTC time then push the **ENTER** knob.
16. With [COMM] selected, push the **ENTER** knob.
17. Rotate the **ENTER** knob to select [TELEPHONE] or [NBDP-FEC] then push the knob.
18. With [DSC FREQ] selected, push the **ENTER** knob.
19. Rotate the **ENTER** knob to select the frequency then push the knob.
20. With [GO TO CALL] selected, push the **ENTER** knob. The distress relay is transmitted to the ships within the area specified at step 7.

4.4 How to Receive Distress Relay from Coast Station

Your ship receives the distress relay when:

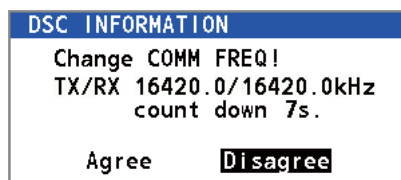
- The coast station sends the distress relay to your ship (DISTRESS RELAY INDIVIDUAL).
- The coast station sends the distress relay to the area where you are navigating (DISTRESS RELAY AREA).

When you receive a distress relay message from a coast station, continue monitoring distress and safety frequencies. The audio alarm sounds and the LED flashes in red.

The icon (🚨) appears in the tab area and the pop-up message appears on the screen.

1. Press the **CANCEL** key to silence the audio alarm, stop the flashing of the LED and erase the pop-up message.
2. Watch distress/safety frequency.

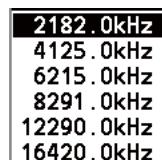
If you receive a DISTRESS RELAY INDIVIDUAL call with the different frequency from the transceiver unit, for example, the following message appears on the screen.



Rotate the **ENTER** knob to select [Agree] then push the knob. The radiotelephone automatically sets working frequency.

If you change the communication frequency, do the following:

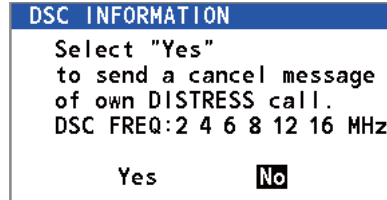
1. Rotate the **ENTER** knob to select [CHANGE] in the user options area then push the knob.
2. Rotate the **ENTER** knob to select working frequency then push the knob.



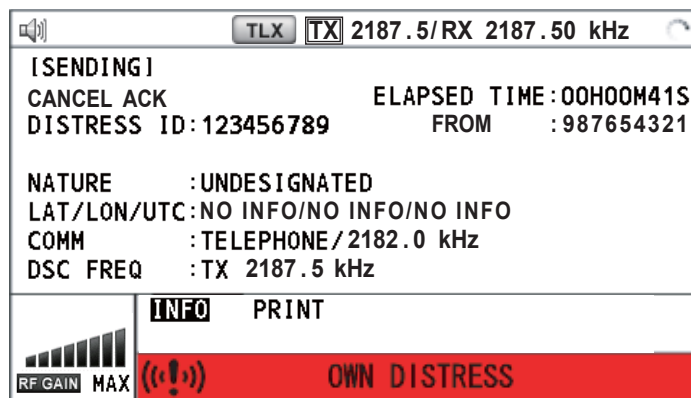
4.5 How to Cancel Distress Alert

You can cancel the distress alert while it is being sent or while waiting for its acknowledgement as follows.

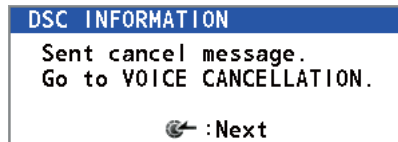
1. Rotate the **ENTER** knob to select [CANCEL] in the user options area then push the knob. The following message appears on the screen.



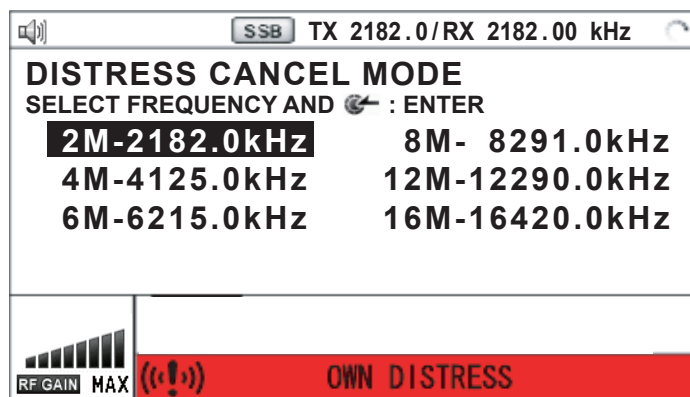
2. Rotate the **ENTER** knob to select [Yes] then push the knob to cancel the distress alert. The screen changes as below.



After transmitting the distress cancel call, the following message appears on the screen.

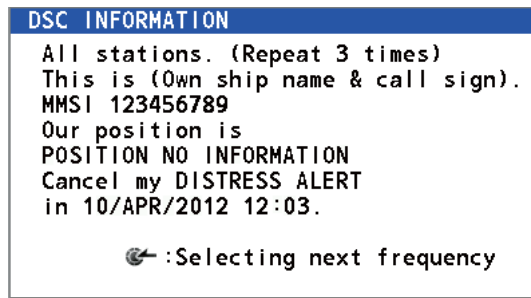


3. Push the **ENTER** knob to erase the message. The screen for the selection of frequency appears.

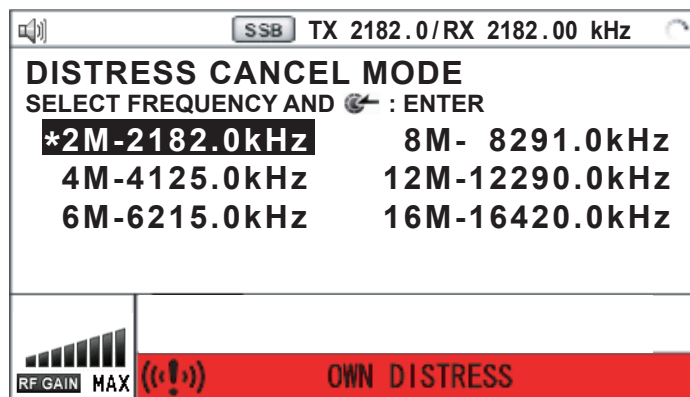


4. DSC DISTRESS OPERATIONS

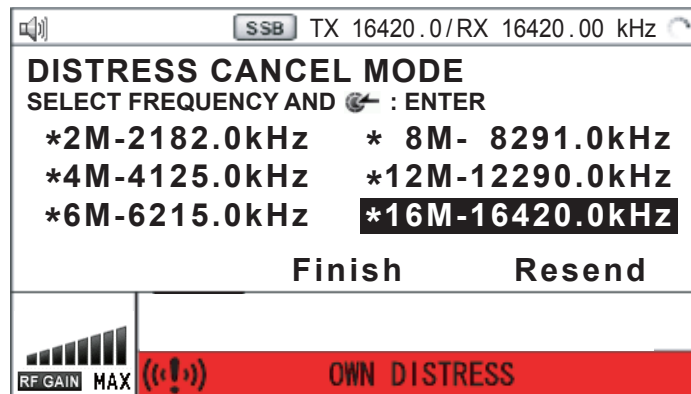
4. Rotate the **ENTER** knob to select a frequency then push the knob. The following message appears on the screen.



5. Communicate with all ships via radiotelephone referring to the message at step 4.
6. Push the **ENTER** knob. The screen for the selection of frequency appears again. The frequency marked by asterisk shows that the call cancellation by voice was completed for that frequency.



7. Repeat steps 4 through 6 to cancel for ALL frequencies. When cancellation on all frequencies is completed, the options [Finish] and [Resend] appear.



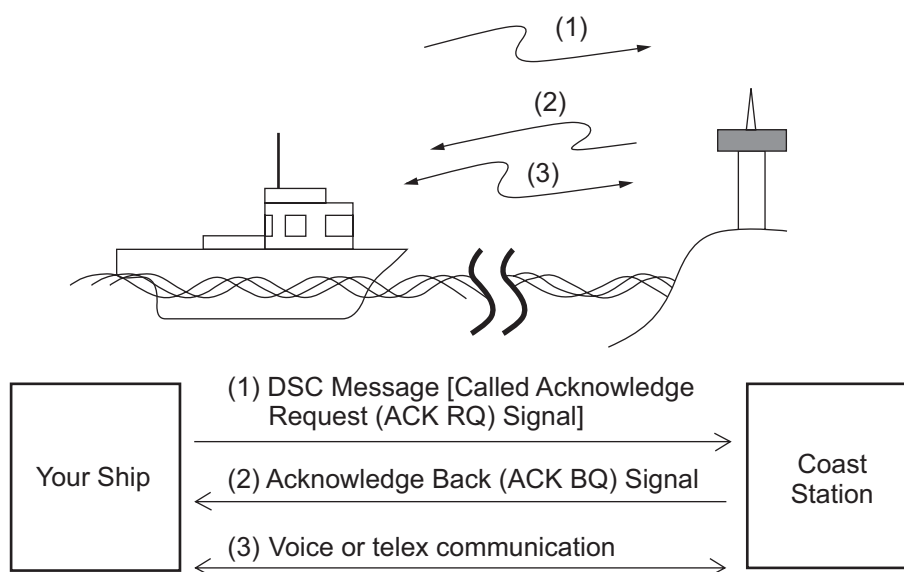
8. Rotate the **ENTER** knob to select [Finish] then push the knob.

5. DSC GENERAL MESSAGE CALLING, RECEIVING

General procedure for non-distress DSC messages

The procedure for sending and receiving non-distress DSC messages is similar among message types. The following is an example of the sequence for an individual call.

1. Send the individual message.
2. Wait for the individual message acknowledgement.
3. Start the communication.



5.1 Individual Call

The individual call is for calling a specific station. After sending an individual call, called ACK RQ transmission, wait to receive the acknowledge back (ACK BQ) signal from the receiving station.

5.1.1 How to send an individual call

1. Press the **OTHER DSC MSG** key.

SSB TX 2182.0/RX 2182.00 kHz	
COMPOSE MESSAGE	
MSG TYPE	: INDIVIDUAL MSG
TO	: -----
PRIORITY	: ROUTINE
COMM MODE	: TELEPHONE
COMM FREQ	: 2170.0kHz
DSC FREQ	: 2177.0kHz
CANCEL : BACK GO TO CALL	

5. DSC GENERAL MESSAGE CALLING, RECEIVING

2. Rotate the **ENTER** knob to select [MSG TYPE] then push the knob.

INDIVIDUAL MSG
GROUP MSG
PSTN MSG
AREA MSG
POSITION MSG
TEST MSG
SPECIAL MSG

3. Rotate the **ENTER** knob to select [INDIVIDUAL MSG] then push the knob.
4. With [TO] selected, push the **ENTER** knob.

DIRECT INPUT
ADDRESS BOOK DATA

5. Rotate the **ENTER** knob to select [DIRECT INPUT] or [ADDRESS BOOK DATA] then push the knob.
[ADDRESS BOOK DATA]: Select a MMSI from the [ADDRESS BOOK] (see section 6.15) then push the **ENTER** knob.
[DIRECT INPUT]: Enter the MMSI of the station where to send the call then push the **ENTER** knob.
6. Rotate the **ENTER** knob to select [PRIORITY] then push the knob.

ROUTINE
SAFETY
URGENCY

7. Rotate the **ENTER** knob to select [ROUTINE], [SAFETY] or [URGENCY] then push the knob.
8. With [COMM MODE] selected, push the **ENTER** knob.

TELEPHONE
NBDP-ARQ
NBDP-FEC

9. Rotate the **ENTER** knob to select communication mode then push the knob.
Note: NBDP terminal unit is required for [NBDP-ARQ] and [NBDP-FEC].
10. Follow "How to set DSC frequency" to set DSC frequency.

How to set DSC frequency

The [COMM FREQ] is automatically set to the same pair frequency as the DSC frequency. If you change the communication frequency, set the [DSC FREQ] before setting the [COMM FREQ].

Routine priority

- 1) Rotate the **ENTER** knob to select [DSC FREQ] then push the knob.

2MHz
4MHz
6MHz
8MHz
12MHz
16MHz
18MHz
22MHz
25MHz

- 2) Rotate the **ENTER** knob to select DSC band then push the knob. One of the menus shown below appears depending on the band selected.

2MHz: To the ship station
INTL :T 2177.0/R 2177.0

2MHz: To the coast station
INTL :T 2189.5/R 2177.0

4MHz
INTL :T 4208.0/R 4219.5
 LOCAL1 :T 4208.5/R 4220.0
 LOCAL2 :T 4209.0/R 4220.5

6MHz
INTL :T 6312.5/R 6331.0
 LOCAL1 :T 6313.0/R 6331.5
 LOCAL2 :T 6313.5/R 6332.0

8MHz
INTL :T 8415.0/R 8436.5
 LOCAL1 :T 8415.5/R 8437.0
 LOCAL2 :T 8416.0/R 8437.5

12MHz
INTL :T12577.5/R12657.0
 LOCAL1 :T12578.0/R12657.5
 LOCAL2 :T12578.5/R12658.0

16MHz
INTL :T16805.0/R16903.0
 LOCAL1 :T16805.5/R16903.5
 LOCAL2 :T16806.0/R16904.0

18MHz
INTL :T18898.5/R19703.5
 LOCAL1 :T18899.0/R19704.0
 LOCAL2 :T18899.5/R19704.5

22MHz
INTL :T22374.5/R22444.0
 LOCAL1 :T22375.0/R22444.5
 LOCAL2 :T22375.5/R22445.0

25MHz
INTL :T25208.5/R26121.0
 LOCAL1 :T25209.0/R26121.5
 LOCAL2 :T25209.5/R26122.0

- 3) Rotate the **ENTER** knob to select DSC frequency then push the knob. The screen shows the DSC frequency band selected, at [DSC FREQ].

Urgency or safety priority

- 1) Rotate the **ENTER** knob to select [DSC FREQ] then push the knob.

2187.5kHz
 4207.5kHz
 6312.0kHz
 8414.5kHz
 12577.0kHz
 16804.5kHz

- 2) Rotate the **ENTER** knob to select the frequency then push the knob.

If you change the communication frequency, go to step 11. If not, go to step 13.

11. Rotate the **ENTER** knob to select [COMM FREQ] then push the knob.

FREQUENCY
 CHANNEL

Note: When you send an individual call to a coast station, [COMM FREQ] is automatically set to [POSITION] or [NO INFO]. [NO INFO] lets the receiving station set the working frequency.

12. Follow "How to set working channel, frequency" to set working channel or frequency.

How to set working channel, frequency

To send a call, set the working frequency as below, to communicate with the receiving station. The working frequency can be entered by TX and RX frequencies or channel number.

- 1) Rotate the **ENTER** knob to select [FREQUENCY] or [CHANNEL] then push the knob.

0.0

Frequency setting window

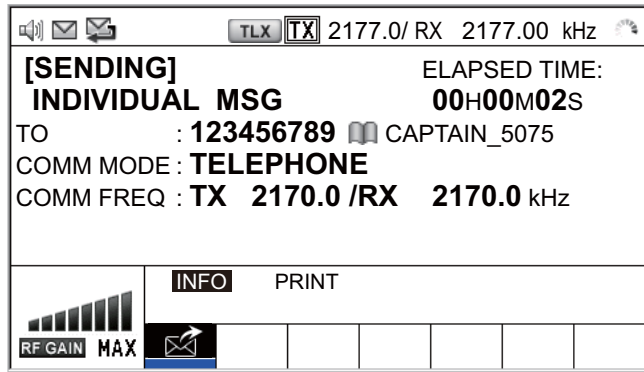
— — — —

Channel setting window

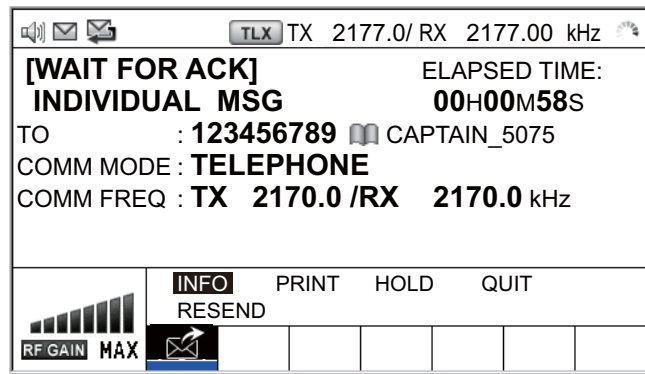
- 2) Enter TX/RX frequency or channel with the numeric keys then push the **ENTER** knob.

5. DSC GENERAL MESSAGE CALLING, RECEIVING

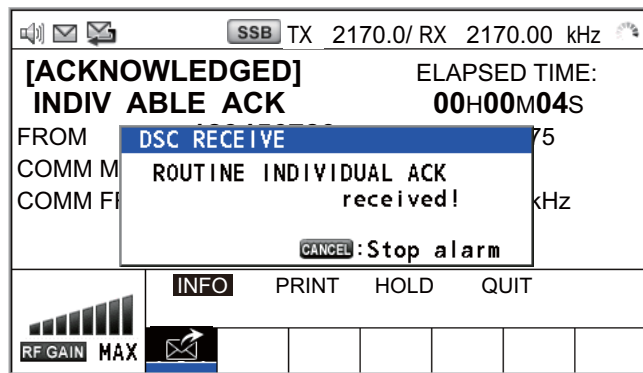
13. Rotate the **ENTER** knob to select [GO TO CALL] then push the knob to send the individual call. The screen changes as below.



The timer starts counting up the time since the call was sent. After the call is sent, the equipment waits for acknowledgement of the call, showing the WAIT FOR ACK screen as below.



When the ACK is received, the audio alarm sounds and the pop-up message "ROUTINE (or SAFETY, URGENCY) INDIVIDUAL ACK received! [CANCEL]: Stop alarm" appears on the screen as below. The timer starts counting up the time since the ACK was received.



There are three types of ACK messages; [ABLE ACK], [UNABLE ACK] and [ABLE CHANGE FREQ].

14. Do one of the following depending on the message type shown at step 13.

Able acknowledge call received

- 1) Press the **CANCEL** key to silence the audio alarm and erase the pop-up message.
- 2) The working frequency is automatically set; you can communicate by radiotelephone or NBDP (see the following "How to send message by NBDP terminal unit").
- 3) After you have completed communications, rotate the **ENTER** knob to select [QUIT] in the user options area then push the knob.

How to send message by NBDP terminal unit

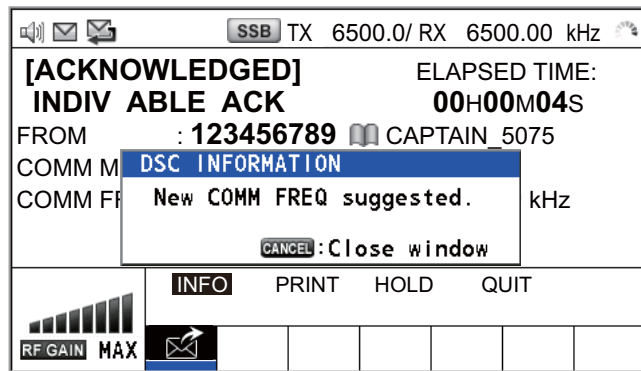
The message "STATION ENTRY COMPLETED FROM DSC. Press any key to escape." appears on the screen of the NBDP terminal unit.

- 1) Press any key on the NBDP terminal unit to erase the message.
- 2) Press the function key **F3** on the keyboard of the NBDP terminal unit to open the [Operate] menu.
- 3) Select [Call Station] then press the **Enter** key.
- 4) With [DSC] selected; press the **Enter** key. "Connect" appears in reverse video.
- 5) Type and transmit your message.
- 6) After you send the message, press the function key **F10** to disconnect the line.

Able to change frequency acknowledge call received

This call means that the station you sent the individual call to accepts your call with the frequency or communication mode that the station requires.

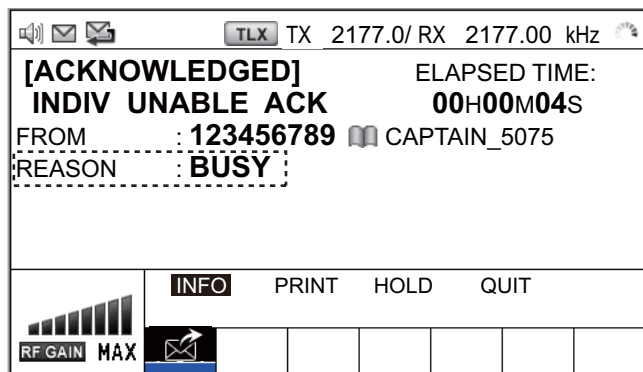
- 1) Press the **CANCEL** key to silence the audio alarm and erase the pop-up message. The following message appears on the screen.



- 2) Press the **CANCEL** key to erase the message. The working frequency is changed to one that the station requires. You can communicate by radiotelephone or NBDP, whichever the station requires.
- 3) After you have completed communications, rotate the **ENTER** knob to select [QUIT] in the user options area then push the knob.

Unable acknowledge call received

- 1) Press the **CANCEL** key to silence the audio alarm and erase the pop-up message. The reason for [UNABLE ACK] is displayed on the screen.



Reason for unable to acknowledge

• NO REASON	• CAN'T USE CH
• BUSY	• CAN'T USE MODE
• EQUIP ERROR	• CONGESTION AT CENTER*
• QUEUE INDICATION	• OPERATOR ABSENT
• STATION BARRED	• TEMP. UNAVAILABLE

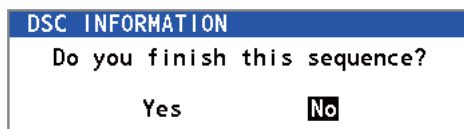
*: Coast station use

- 2) Rotate the **ENTER** knob to select [QUIT] in the user options area then push the knob.

Note: If the coast station sends the message "QUEUE INDICATION", wait until your turn comes.

If there is no response from the receiving station, do one of the following procedures:

- **Resend call:** Rotate the **ENTER** knob to select [RESEND] in the user options area then push the knob.
- **Cancel call:** Rotate the **ENTER** knob to select [QUIT] in the user options area then push the knob. The following message appears.



Rotate the **ENTER** knob to select [Yes] then push the knob.

5.1.2 How to receive an individual call

Unable acknowledge is sent automatically or manually depending on the acknowledgement method setting (see section 6.17). Able acknowledge is sent only manually.

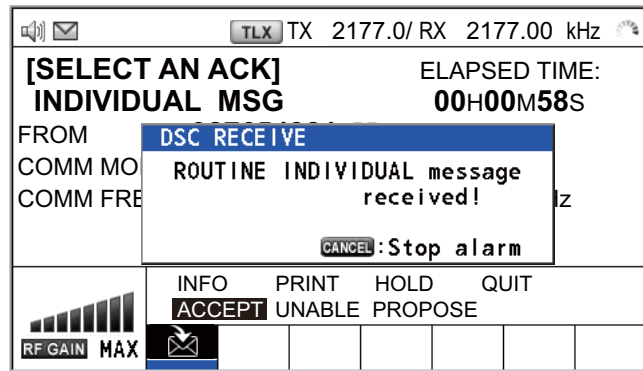
Note: The handset must be on hook and all sessions must be quit to enable automatic acknowledge.

Send unable acknowledge automatically

If the frequency or mode specified by the sending station is one that you cannot use, an unable acknowledge [CAN'T USE CH] is sent automatically. The [ACK SETTINGS] menu is set to [AUTO (UNABLE)]. It takes about seven seconds to transmit the call.

Send able/unable acknowledge manually

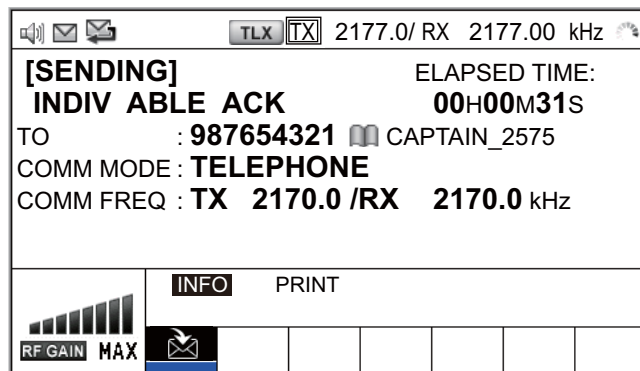
When an individual call is received with the setting [MANUAL] on the [ACK SETTINGS] menu, the audio alarm sounds and a pop-up message appears on the screen as below.



Press the **CANCEL** key to silence the audio alarm and erase the pop-up message. There are three types of ACK transmission; able acknowledge, able to change frequency and unable acknowledge. Follow the appropriate procedure on this and the next page.

- **How to send able acknowledge call**

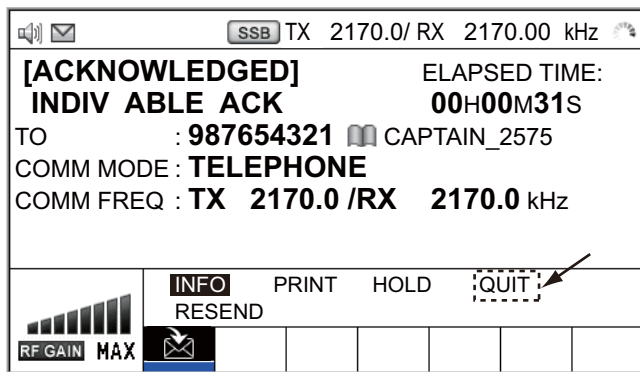
1. With [ACCEPT] selected, push the **ENTER** knob to send the able acknowledge call.



2. Communicate by radiotelephone or NBDP (see "Communication by NBDP terminal unit" on page 5-9).

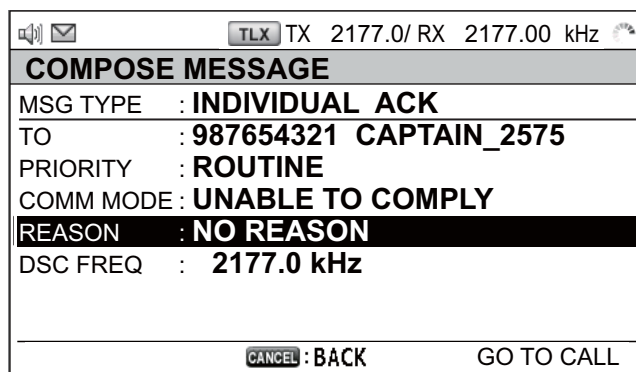
5. DSC GENERAL MESSAGE CALLING, RECEIVING

3. After you have completed communications, rotate the **ENTER** knob to select [QUIT] in the user options area then push the knob.

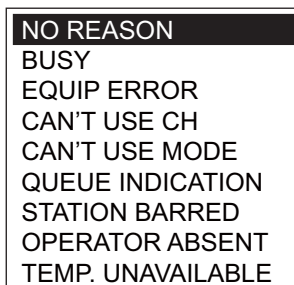


• How to send unable acknowledge call

1. Rotate the **ENTER** knob to select [UNABLE] in the user options area then push the knob.



2. Push the **ENTER** knob.



3. Rotate the **ENTER** knob to select the reason for unable then push the knob.
4. With [GO TO CALL] selected, push the **ENTER** knob to send unable acknowledge call.

- **How to send able acknowledge call and change frequency**

1. Rotate the **ENTER** knob to select [PROPOSE] in the user options area then push the knob.

TLX TX 2177.0/ RX 2177.00 kHz	
COMPOSE MESSAGE	
MSG TYPE	: INDIVIDUAL ACK
TO	: 987654321 CAPTAIN_2575
PRIORITY	: ROUTINE
COMM MODE	: TELEPHONE
COMM FREQ	: 2170.0 kHz
DSC FREQ	: 2177.0 kHz
<div style="display: flex; justify-content: space-between;"> CANCEL : BACK GO TO CALL </div>	

2. Rotate the **ENTER** knob to select [COMM MODE] then push the knob.
3. Rotate the **ENTER** knob to select [TELEPHONE], [NBDP-ARQ] or [NBDP-FEC] then push the knob.
4. With [COMM FREQ] selected, push the **ENTER** knob.
5. Rotate the **ENTER** knob to select [FREQUENCY] or [CHANNEL] then push the knob.
6. Referring to "How to set working channel, frequency" on page 5-3, set the frequency or channel.
7. With [GO TO CALL] selected, push the **ENTER** knob to send the able to change frequency acknowledge call.
8. Communicate by radiotelephone or NBDP (see the following "Communication by NBDP terminal unit").
9. After you have completed communications, rotate the **ENTER** knob to select [QUIT] in the user options area then push the knob.

Communication by NBDP terminal unit

After acknowledging an individual call, do the following to communicate by NBDP terminal unit. The message from the other party appears on your NBDP terminal unit.

1. After receiving the message from the other party, type your message and transmit it.
2. Press the function key **F10** to disconnect the line.

5.2 Group Call

A group call is for calling a specific group by specifying its group MMSI.

5.2.1 How to send a group call

1. Press the **OTHER DSC MSG** key.

SSB TX 2182.0/RX 2182.00 kHz

COMPOSE MESSAGE

MSG TYPE : **INDIVIDUAL MSG**

TO : -----

PRIORITY : **ROUTINE**

COMM MODE : **TELEPHONE**

COMM FREQ : **2170.0kHz**

DSC FREQ : **2177.0kHz**

CANCEL:BACK GO TO CALL

2. Rotate the **ENTER** knob to select [MSG TYPE] then push the knob.
3. Rotate the **ENTER** knob to select [GROUP MSG] then push the knob.

SSB TX 2182.0/RX 2182.00 kHz

COMPOSE MESSAGE

MSG TYPE : **GROUP MSG**

TO : 0-----

PRIORITY : **ROUTINE**

COMM MODE : **TELEPHONE**

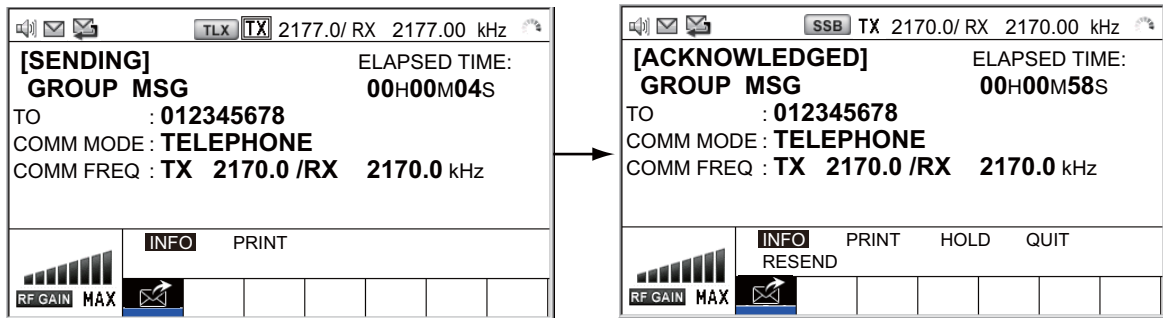
COMM FREQ : **2170.0kHz**

DSC FREQ : **2177.0kHz**

CANCEL:BACK GO TO CALL

4. With [TO] selected, push the **ENTER** knob.
5. Rotate the **ENTER** knob to select [DIRECT INPUT] or [ADDRESS BOOK DATA] then push the knob.
 [ADDRESS BOOK DATA]: Select a MMSI from the [ADDRESS BOOK] (see section 6.15) then push the **ENTER** knob.
 [DIRECT INPUT]: Enter group MMSI (eight digits) with the numeric keys then push the **ENTER** knob.
6. With [COMM MODE] selected, push the **ENTER** knob.
7. Rotate the **ENTER** knob to select [TELEPHONE] or [NBDP-FEC] then push the knob.
8. Rotate the **ENTER** knob to select [DSC FREQ] then push the knob.
9. Rotate the **ENTER** knob to select DSC frequency desired then push the knob (see "How to set DSC frequency" on page 5-2). The communication frequency changes in conjunction with DSC frequency. If you change the communication frequency, go to step 10. If not, go to step 13.
10. Rotate the **ENTER** knob to select [COMM FREQ] then push the knob.
11. Rotate the **ENTER** knob to select [FREQUENCY] or [CHANNEL] then push the knob.

12. Referring to "How to set working channel, frequency" on page 5-3, set the frequency or channel.
13. Rotate the **ENTER** knob to select [GO TO CALL] then push the knob to send the group call. The screen changes as below.



14. Communicate by radiotelephone or NBDP (see "How to send message by NBDP terminal unit" on page 5-5).
15. After you have completed communications, rotate the **ENTER** knob to select [QUIT] in the user options area then push the knob.

5.2.2 How to receive a group call

Group MMSI must be registered in order to receive a group call (see paragraph 6.15.2).

When a group call is received, the audio alarm sounds. The icon (📧) appears in the tab area, and the pop-up message "GROUP message received! [CANCEL]: Stop alarm" appears.

1. Press the **CANCEL** key to silence the audio alarm and erase the pop-up message. The frequency is automatically tuned to the received frequency.
2. Watch on the working frequency. Communicate by radiotelephone or NBDP (see the following "Group call received by NBDP terminal unit").
3. After you have completed communications, rotate the **ENTER** knob to select [QUIT] in the user options area then push the knob.

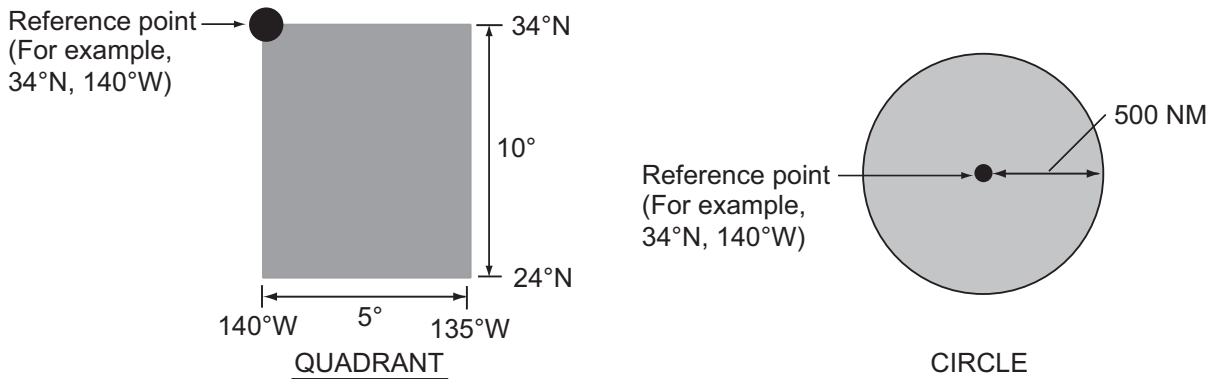
Group call received by NBDP terminal unit

After receiving a group call, confirm the following.

- The control unit's screen shows the TX and RX frequencies.
- The message from the sending station appears on your NBDP terminal unit.

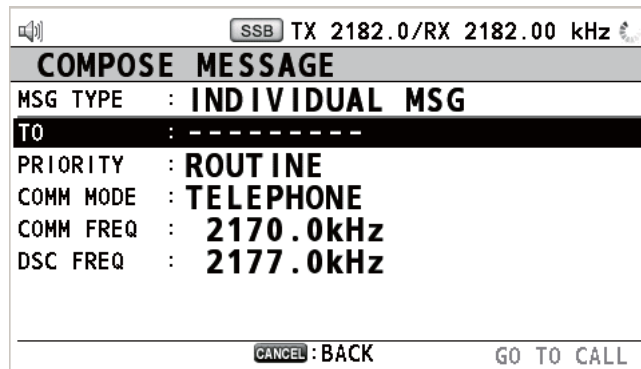
5.3 Geographical Area Call

The purpose of a geographical area call is to send a call to all ships within the area you designate. In the figure below, for example, the call is sent to all ships within 24-34°N, 135-140°W (QUADRANT) and 34°N, 140°W, range: 500 NM (CIRCLE).

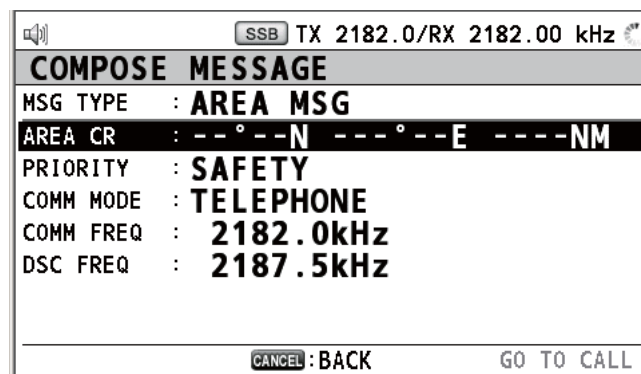


5.3.1 How to send a geographical area call

1. Press the **OTHER DSC MSG** key.



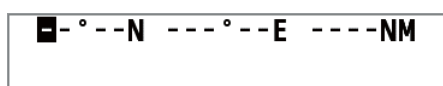
2. Rotate the **ENTER** knob to select [MSG TYPE] then push the knob.
3. Rotate the **ENTER** knob to select [AREA MSG] then push the knob.



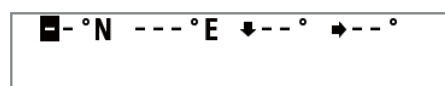
4. With [AREA CR] selected, push the **ENTER** knob.



5. Rotate the **ENTER** knob to select [CIRCLE] or [QUADRANT] then push the knob.



CIRCLE setting window



QUADRANT setting window

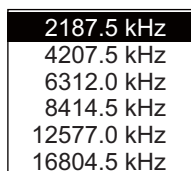
[CIRCLE]: Using the numeric keys, enter latitude and longitude of reference point and radius of area. To change coordinate, select it and press the **1** key for North or East; **2** key for South or West. After entering data, push the **ENTER** knob.

[QUADRANT]: Using the numeric keys, enter latitude and longitude of reference point and southerly degrees and easterly degrees of area. To change coordinate, select it and press the **1** key for North or East; **2** key for South or West. After entering data, push the **ENTER** knob.

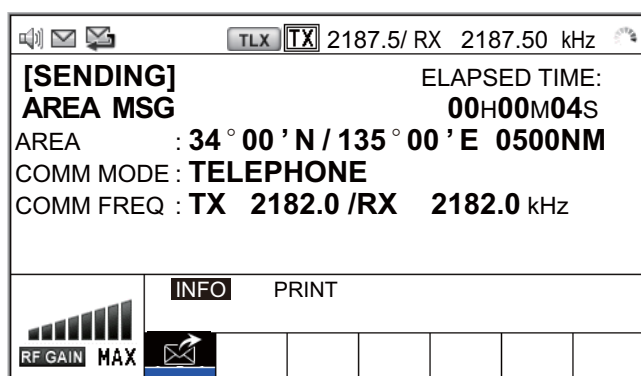
6. With [PRIORITY] selected, push the **ENTER** knob.



7. Rotate the **ENTER** knob to select [SAFETY] or [URGENCY] then push the knob.
 8. With [COMM MODE] selected, push the **ENTER** knob.
 9. Rotate the **ENTER** knob to select [TELEPHONE] or [NBDP-FEC] then push the knob.
 10. Rotate the **ENTER** knob to select [DSC FREQ] then push the knob.



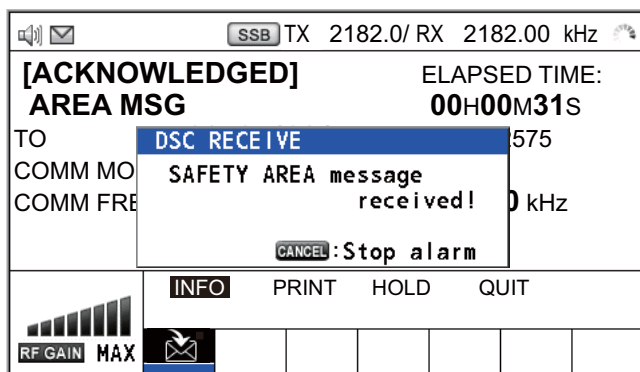
11. Rotate the **ENTER** knob to select DSC frequency desired then push the knob. The communication frequency changes in conjunction with DSC frequency. If you change the communication frequency, go to step 12. If not, go to step 15.
 12. Rotate the **ENTER** knob to select [COMM FREQ] then push the knob.
 13. Rotate the **ENTER** knob to select [FREQUENCY] or [CHANNEL] then push the knob.
 14. Referring to "How to set working channel, frequency" on page 5-3, set the frequency or channel.
 15. Rotate the **ENTER** knob to select [GO TO CALL] then push the knob to send the call.



16. Communicate by radiotelephone or NBDP (see "How to send message by NBDP terminal unit" on page 5-5).
 17. After you have completed communications, rotate the **ENTER** knob to select [QUIT] in the user options area then push the knob.

5.3.2 How to receive a geographical area call

When you receive a geographical area message, the audio alarm sounds. The icon (📧) appears in the tab area, and the pop-up message "SAFETY (URGENCY) AREA message received! [CANCEL]: Stop alarm" appears.



1. Press the **CANCEL** key to silence the audio alarm and erase the pop-up message. The frequency is automatically tuned to the received frequency.
2. Watch on the working frequency. Communicate by radiotelephone or NBDP (see the following "Geographical area call received by NBDP terminal unit").
3. After you have completed communications, rotate the **ENTER** knob to select [QUIT] in the user options area then push the knob.

Geographical area call received by NBDP terminal unit

After receiving a geographic area call, confirm the following.

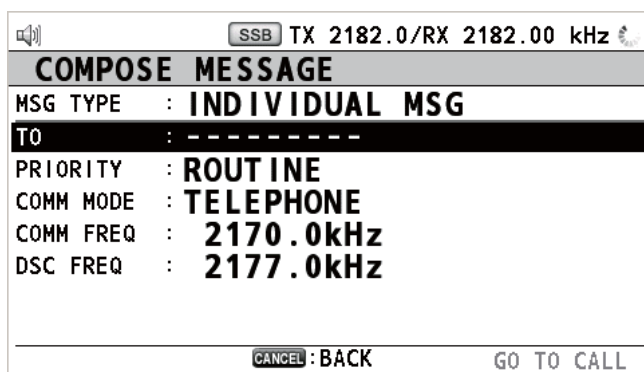
- The control unit's screen shows the TX and RX frequencies.
- The message from the sending station appears on your NBDP terminal unit.

5.4 Neutral Craft Call

The neutral craft call, which contains your ship's position and MMSI, informs all ships that your ship is not a participant in an armed conflict. The neutral craft call must be enabled on the [SPECIAL MSG] menu. See section 6.18.

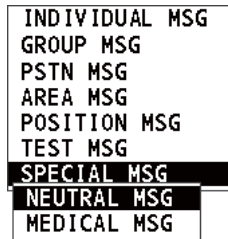
5.4.1 How to send a neutral craft call

1. Press the **OTHER DSC MSG** key.

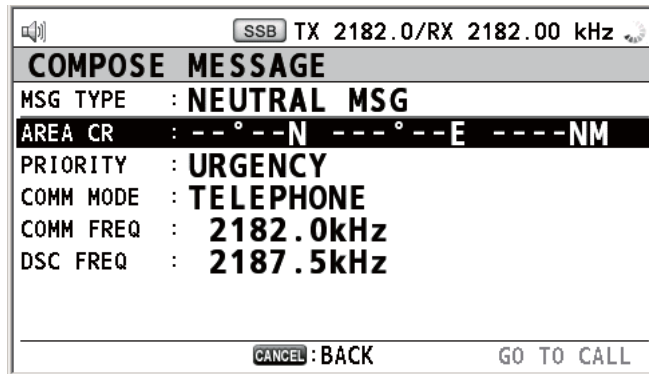


2. Rotate the **ENTER** knob to select [MSG TYPE] then push the knob.

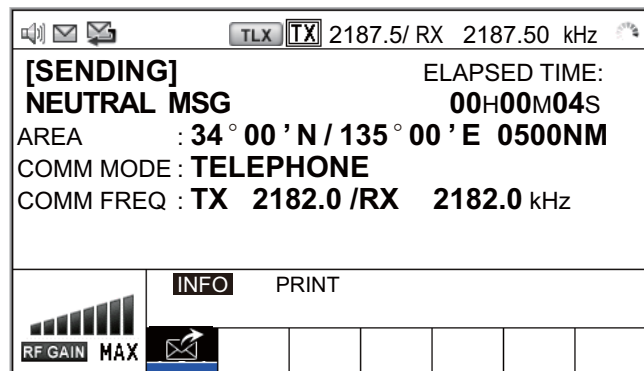
3. Rotate the **ENTER** knob to select [SPECIAL MSG] then push the knob.



4. Rotate the **ENTER** knob to select [NEUTRAL MSG] then push the knob. [PRIORITY] is automatically selected to [URGENCY].



5. With [AREA CR] selected, push the **ENTER** knob.
6. Enter the area range referring to step 5 in paragraph 5.3.1.
7. With [COMM MODE] selected, push the **ENTER** knob.
8. Rotate the **ENTER** knob to select [TELEPHONE] or [NBDP-FEC] then push the knob.
9. Rotate the **ENTER** knob to select [DSC FREQ] then push the knob.
10. Rotate the **ENTER** knob to select DSC frequency desired then push the knob. The communication frequency changes in conjunction with DSC frequency. If you change the communication frequency, go to step 11. If not, go to step 14.
11. Rotate the **ENTER** knob to select [COMM FREQ] then push the knob.
12. Rotate the **ENTER** knob to select [FREQUENCY] or [CHANNEL] then push the knob.
13. Referring to "How to set working channel, frequency" on page 5-3, set the frequency or channel.
14. Rotate the **ENTER** knob to select [GO TO CALL] then push the knob to send the neutral craft call.

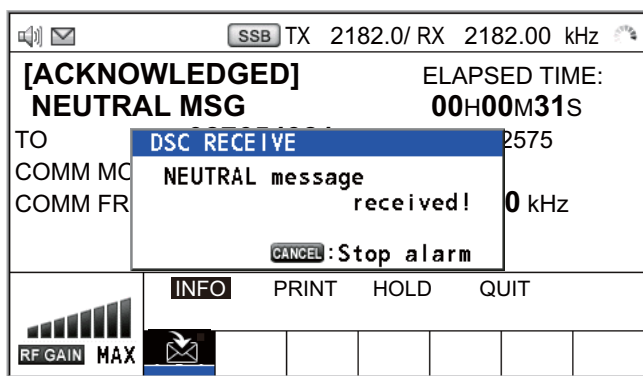


5. DSC GENERAL MESSAGE CALLING, RECEIVING

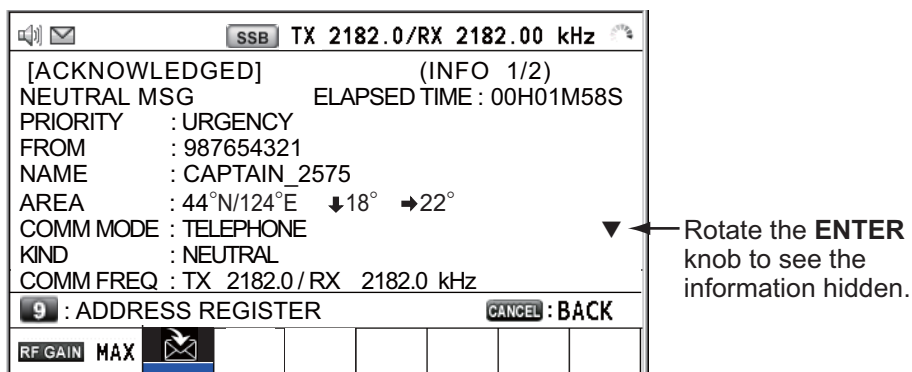
15. Inform all ships by radiotelephone that your ship is not a participant in armed conflict. For communication by NBDP, see "How to send message by NBDP terminal unit" on page 5-5.
16. After you have completed communications, rotate the **ENTER** knob to select [QUIT] in the user options area then push the knob.

5.4.2 How to receive a neutral craft call

When you receive a neutral craft call, the audio alarm sounds. The icon (✉) appears in the tab area, and the pop-up message "NEUTRAL message received! [CANCEL]: Stop alarm" appears.



1. Press the **CANCEL** key to silence the audio alarm and erase the pop-up message.
2. With [INFO] selected, push the **ENTER** knob to see the detailed information.



3. Watch on the working frequency. Communicate by radiotelephone or NBDP (see the following "Neutral craft call received by NBDP terminal unit").
4. After you have completed communications, rotate the **ENTER** knob to select [QUIT] in the user options area then push the knob.

Neutral craft call received by NBDP terminal unit

After receiving a neutral craft call, confirm the following.

- The control unit's screen shows the TX and RX frequencies.
- The message from the sending station appears on your NBDP terminal unit.

5.5 Medical Transport Call

The medical transport call informs all ships, by urgency priority, that your ship carries medical supplies. The medical transport call must be enabled on the [SPECIAL MSG] menu. See section 6.18.

5.5.1 How to send a medical transport call

1. Press the **OTHER DSC MSG** key.

SSB TX 2182.0/RX 2182.00 kHz

COMPOSE MESSAGE

MSG TYPE : **INDIVIDUAL MSG**

TO : - - - - -

PRIORITY : **ROUTINE**

COMM MODE : **TELEPHONE**

COMM FREQ : **2170.0kHz**

DSC FREQ : **2177.0kHz**

CANCEL : BACK GO TO CALL

2. Rotate the **ENTER** knob to select [MSG TYPE] then push the knob.
3. Rotate the **ENTER** knob to select [SPECIAL MSG] then push the knob.
4. Rotate the **ENTER** knob to select [MEDICAL MSG] then push the knob. [PRIORITY] is automatically selected to [URGENCY].

SSB TX 2182.0/RX 2182.00 kHz

COMPOSE MESSAGE

MSG TYPE : **MEDICAL MSG**

AREA CR : - - ° - - N - - - ° - - E - - - - NM

PRIORITY : **URGENCY**

COMM MODE : **TELEPHONE**

COMM FREQ : **2182.0kHz**

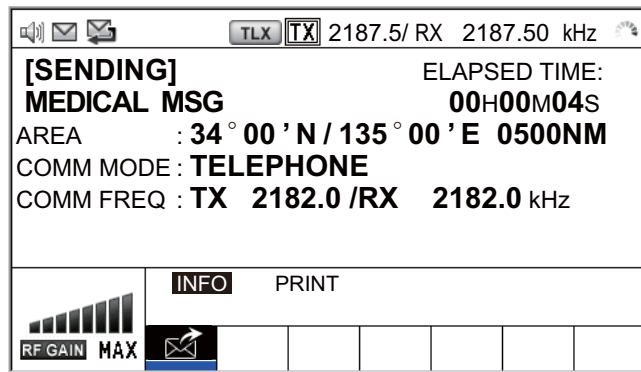
DSC FREQ : **2187.5kHz**

CANCEL : BACK GO TO CALL

5. With [AREA CR] selected, push the **ENTER** knob.
6. Enter the area range referring to step 5 in paragraph 5.3.1.
7. With [COMM MODE] selected, push the **ENTER** knob.
8. Rotate the **ENTER** knob to select [TELEPHONE] or [NBDF-FEC] then push the knob.
9. Rotate the **ENTER** knob to select [DSC FREQ] then push the knob.
10. Rotate the **ENTER** knob to select DSC frequency desired then push the knob. The communication frequency changes in conjunction with DSC frequency. If you change the communication frequency, go to step 11. If not, go to step 14.
11. Rotate the **ENTER** knob to select [COMM FREQ] then push the knob.
12. Rotate the **ENTER** knob to select [FREQUENCY] or [CHANNEL] then push the knob.
13. Referring to "How to set working channel, frequency" on page 5-3, set the frequency or channel.

5. DSC GENERAL MESSAGE CALLING, RECEIVING

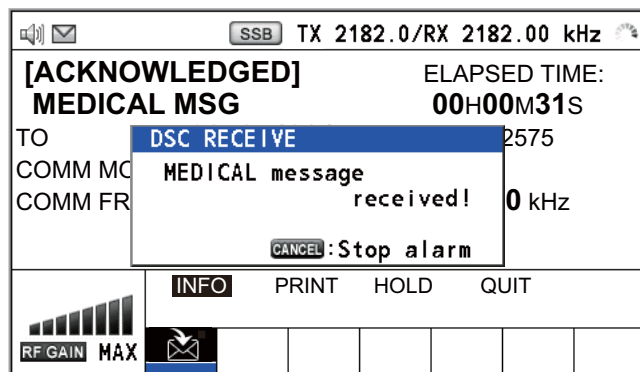
14. Rotate the **ENTER** knob to select [GO TO CALL] then push the knob to send the medical transport call.



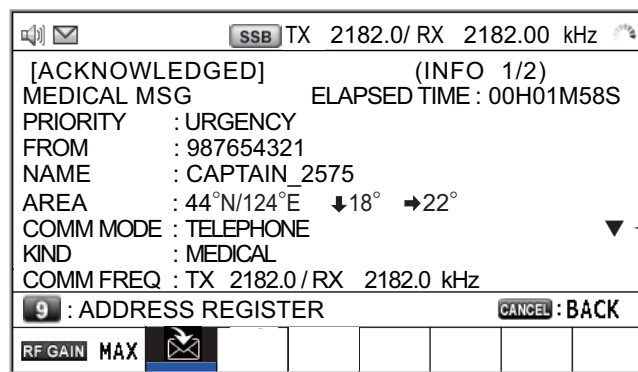
15. Inform all ships by radiotelephone that your ship is transporting medical supplies. For communication by NBDP, see "How to send message by NBDP terminal unit" on page 5-5.
16. After you have completed communications, rotate the **ENTER** knob to select [QUIT] in the user options area then push the knob.

5.5.2 How to receive a medical transport call

When you receive a medical transport call, the audio alarm sounds. The icon (✉) appears in the tab area, and the pop-up message "MEDICAL message received! [CANCEL]: Stop alarm" appears.



1. Press the **CANCEL** key to silence the audio alarm and erase the pop-up message.
2. With [INFO] selected, push the **ENTER** knob to see the detailed information.



▼ Rotate the **ENTER** knob to see the information hidden.

3. Watch on the working frequency. Communicate by radiotelephone or NBDP (see the following "Medical transport call received by NBDP terminal unit").
4. After you have completed communications, rotate the **ENTER** knob to select [QUIT] in the user options area then push the knob.

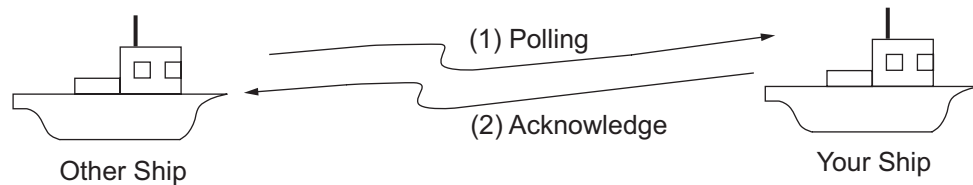
Medical transport call received by NBDP terminal unit

After receiving a medical transport call, confirm the following.

- The control unit's screen shows the TX and RX frequencies.
- The message from the sending station appears on your NBDP terminal unit.

5.6 How to Receive a Polling Request

Polling means another ship wants to confirm if it is within communicating range of your ship.



5.6.1 Automatic reply

When a polling request message is received with [AUTO] setting on [POLLING MSG] of the [ACK SETTINGS] menu, an acknowledge is sent automatically. For details see section 6.17 ([PRIORITY]: [ROUTINE] only).

5.6.2 Manual reply

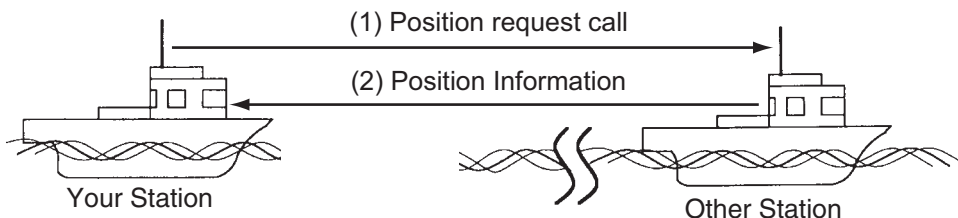
When you receive a polling request message, the audio alarm sounds. The icon (✉) appears in the tab area, and the pop-up message "POLLING message received! [CANCEL]: Stop alarm" appears. The equipment is set up for manual acknowledge: [POLLING MSG] on the [ACK SETTINGS] menu is [MANUAL].

1. Press the **CANCEL** key to silence the audio alarm and erase the pop-up message.
2. Rotate the **ENTER** knob to select [ACK] then push the knob to send the polling acknowledge message.
3. Rotate the **ENTER** knob to select [QUIT] then push the knob.

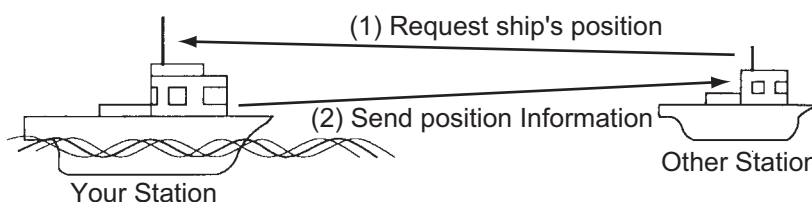
5.7 Position Call

There are two types of position calls: your ship requests position of another ship and other station requires your ship's position.

Find position of other station

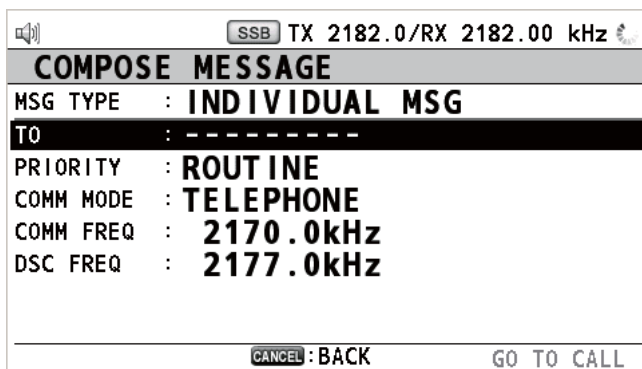


Send your ship's position to other station

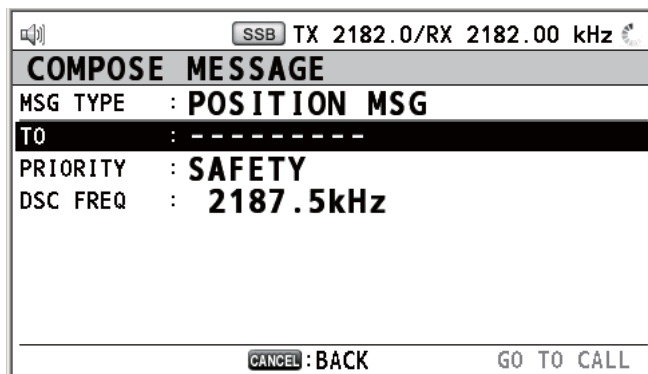


5.7.1 How to request other ship's position

1. Press the **OTHER DSC MSG** key.

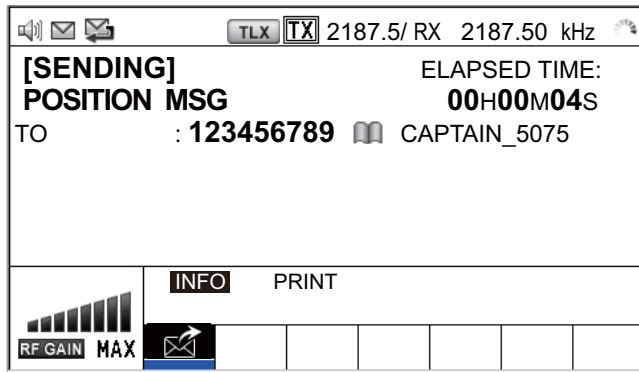


2. Rotate the **ENTER** knob to select [MSG TYPE] then push the knob.
3. Rotate the **ENTER** knob to select [POSITION MSG] then push the knob. [PRIORITY] is automatically selected to [SAFETY].

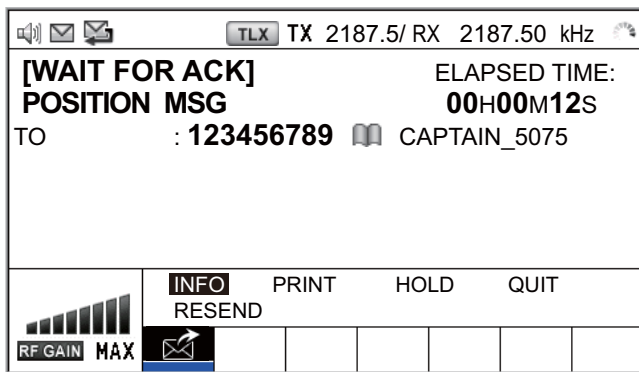


4. With [TO] selected, push the **ENTER** knob.

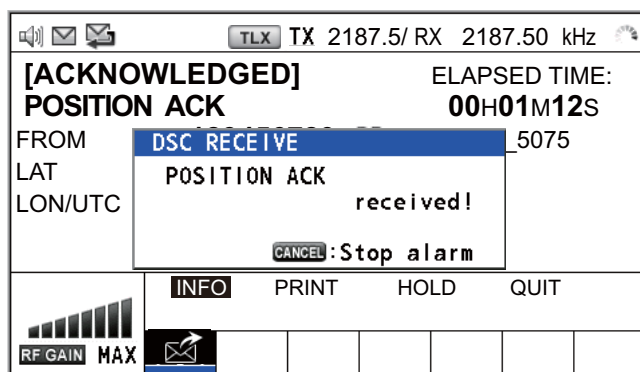
5. Rotate the **ENTER** knob to select [DIRECT INPUT] or [ADDRESS BOOK DATA] then push the knob.
 [ADDRESS BOOK DATA]: Select a MMSI from the [ADDRESS BOOK] (see section 6.15) then push the **ENTER** knob.
 [DIRECT INPUT]: Enter MMSI of station, which you want to know its position, with the numeric keys then push the **ENTER** knob.
6. With [DSC FREQ] selected, push the **ENTER** knob.
7. Rotate the **ENTER** knob to select DSC frequency desired then push the knob.
8. With [GO TO CALL] selected, push the **ENTER** knob to send the position call. The screen changes as below.



After the call has been sent, the WAIT FOR ACK screen appears as below. The elapsed time since sending the call is displayed.

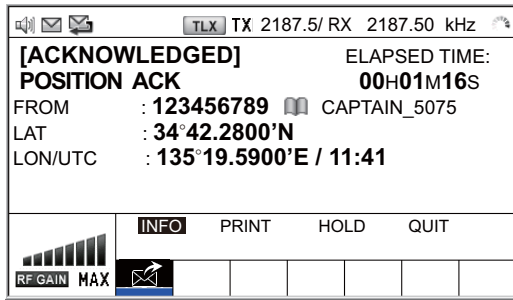


When you receive an acknowledge message, the audio alarm sounds and a pop-up message appears.

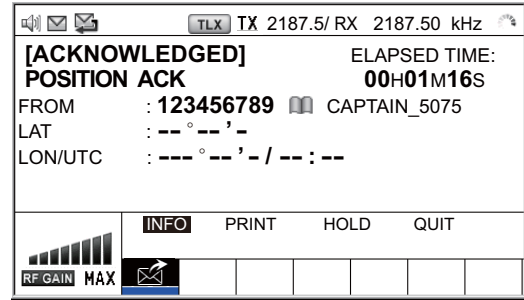


5. DSC GENERAL MESSAGE CALLING, RECEIVING

9. Press the **CANCEL** key to silence the audio alarm and erase the pop-up message. There are two types of ACK screens; one with position information and one with no position information.



Position information included



No position information

5.7.2 Other ship requests your position

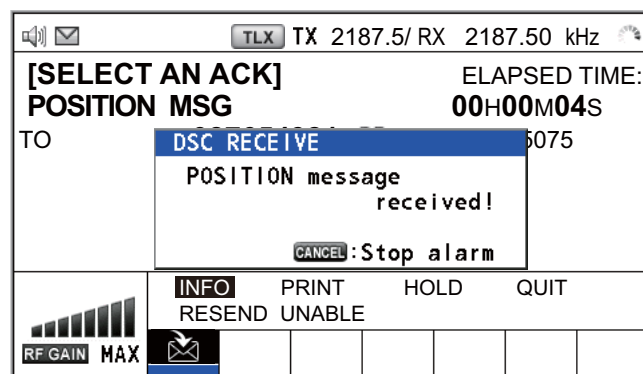
You can turn automatic acknowledge of position request on with [POSITION MSG] on the [ACK SETTINGS] menu (see section 6.17).

Automatic reply

When another ship requests your position and the setting of [POSITION MSG] on the [ACK SETTINGS] menu is [AUTO], the equipment automatically transmits a reply. There are two types of automatic replies; one with position information (the setting is [AUTO (ABLE)]) and the other with no position information (the setting is [AUTO (UNABLE)]).

Manual reply

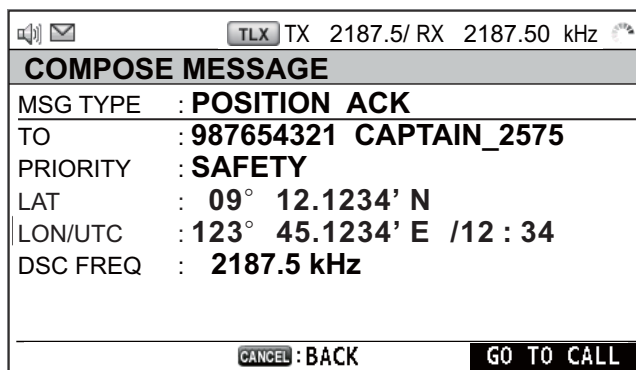
When a position request message is received and the setting of [POSITION MSG] on the [ACK SETTINGS] menu is [MANUAL], send the reply manually.



To silence the audio alarm, press the **CANCEL** key.

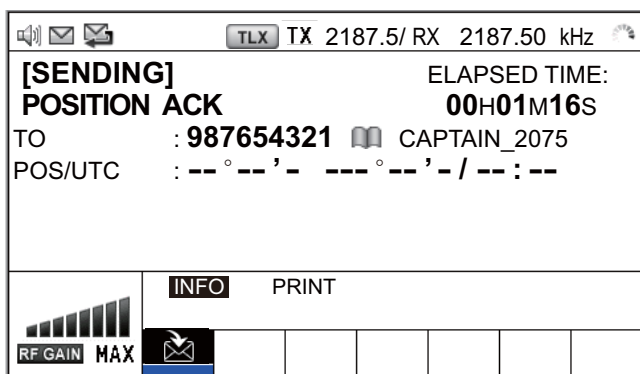
- **Send the ACK with position information:**

1) With [ACCEPT] selected, push the **ENTER** knob.



2) With [GO TO CALL] selected, push the **ENTER** knob.

- **To send the ACK with no position information**, rotate the **ENTER** knob to select [UNABLE] in the user options area then push the knob. The screen changes as below.

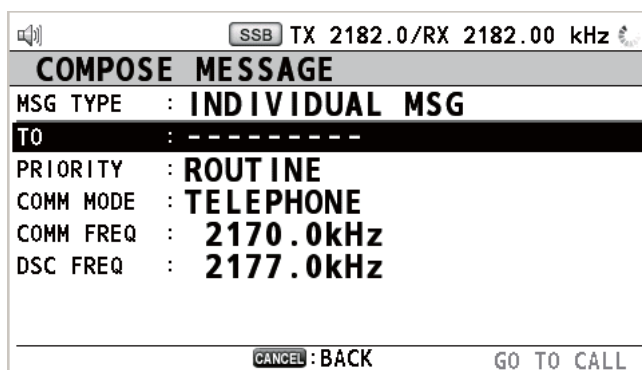


5.8 PSTN Call

The PSTN call allows the making and receiving of telephone calls over public switched telephone networks. To use the PSTN call feature, use a handset which has a HOOK ON/OFF function. The standard supply handset has this feature.

5.8.1 How to send a PSTN call

1. Press the **OTHER DSC MSG** key.



5. DSC GENERAL MESSAGE CALLING, RECEIVING

2. Rotate the **ENTER** knob to select [MSG TYPE] then push the knob.
3. Rotate the **ENTER** knob to select [PSTN MSG] then push the knob.

SSB TX 2182.0/RX 2182.00 kHz

COMPOSE MESSAGE

MSG TYPE : **PSTN MSG**

TO : **00**-----

COMM MODE : **TELEPHONE**

COMM FREQ : **NO INFO**

TEL NO. : -----

DSC FREQ : **2189.5kHz**

CANCEL: BACK GO TO CALL

4. With [TO] selected, push the **ENTER** knob.
5. Rotate the **ENTER** knob to select [DIRECT INPUT] or [ADDRESS BOOK DATA] then push the knob.
[ADDRESS BOOK DATA]: Select a MMSI from the [ADDRESS BOOK] (see section 6.13) then push the **ENTER** knob.
[DIRECT INPUT]: Enter MMSI of coast station (seven digits) with the numeric keys then push the **ENTER** knob.
6. Rotate the **ENTER** knob to select [TEL NO.] then push the knob.
7. Enter telephone no. (up to 16 digits) with the numeric keys then push the **ENTER** knob.
8. With [DSC FREQ] selected, push the **ENTER** knob.
9. Rotate the **ENTER** knob to select DSC frequency then push the knob (see "Routine priority" in "How to set DSC frequency" on page 5-2).
10. With [GO TO CALL] selected, push the **ENTER** knob to send the PSTN call. After the call has been sent, the WAIT FOR ACK screen appears. The elapsed time since sending the call is displayed. When you receive an acknowledge message, a pop-up message appears.
11. Do one of the following depending on ACK message.

Able acknowledge message received

If you received PSTN ABLE ACK from a coast station, the pop-up message "PSTN calling! Pick up HANDSET!" appears and the audio alarm sounds. The communication frequency changes to the working frequency and PSTN CONNECTION CALL is sent automatically. (PSTN CONNECTION CALL has a role to check quality of communication on the working frequency.)

Note 1: If you have already picked up the handset before the pop-up message appears, a pop-up message which suggests you to push the **ENTER** knob appears. Push the **ENTER** knob to accept.

Note 2: If you do not receive PSTN ACK message within 25 seconds, the pop-up message "PSTN disconnected because of timeout. [CANCEL]: Close window" appears.

1. To start the communications:
If you received ABLE ACK, which indicates the quality test is successful, on the working frequency within 25 seconds of starting transmission of PSTN CONNECTION CALL, the PSTN call is connected. Pick up the handset and communicate

with the party you called. The elapsed time since starting communication is displayed.


Note: When you receive this ABLE ACK on the working frequency in on hook condition, END OF CALL is sent automatically. The communication is disconnected.

2. To quit the communications, do one of the following.
 - On hook the handset or press the **CANCEL** key. END OF CALL is sent automatically. The waiting ACK for END OF CALL screen appears. When you receive the ACK, rotate the **ENTER** knob to select [QUIT] then push the knob.
 - When the PSTN line is disconnected by the coast station, you receive the END OF ACK message. Rotate the **ENTER** knob to select [QUIT] then push the knob.

Unable acknowledge message received

When you receive an unable acknowledge message, the audio alarm sounds and a pop-up message appears. Rotate the **ENTER** knob to select [QUIT] then push the knob.

5.8.2 How to receive a PSTN call

When a PSTN call is received, the  icon appears in the tab area. An able/unable acknowledge is sent automatically according to the setting of [PSTN] on the [ACK SETTINGS].

- [AUTO (ABLE)]: The automatic able acknowledge (which means you can call with party) is sent.
- [AUTO (UNABLE)]: The automatic unable acknowledge (which means you cannot call with party) is sent.

Able acknowledgement

The automatic able acknowledge is sent and the pop-up message "PSTN connected pick up HANDSET!" appears.

Note: If you have already picked up the handset before the pop-up message appears, a pop-up message which suggests you to push the **ENTER** knob appears. Push the **ENTER** knob to accept.

1. Pick up the handset. When you receive PSTN ACK of connection, the screen for telephone calling appears. Communicate with the party. The elapsed time since starting communication is displayed.
2. To quit the communication, do one of the following.
 - On hook the handset or press the **CANCEL** key. END OF CALL is sent automatically. The waiting ACK for END OF CALL screen appears. When you receive the ACK, rotate the **ENTER** knob to select [QUIT] then push the knob.
 - When the PSTN line is disconnected by the coast station, you receive the END OF ACK message. Rotate the **ENTER** knob to select [QUIT] then push the knob.

After disconnection of PSTN line, the charge information is sent.

5. DSC GENERAL MESSAGE CALLING, RECEIVING

Unable acknowledgement

The automatic unable acknowledge is sent. The audio alarm sounds and the LED flashes in green. Press the **CANCEL** key.

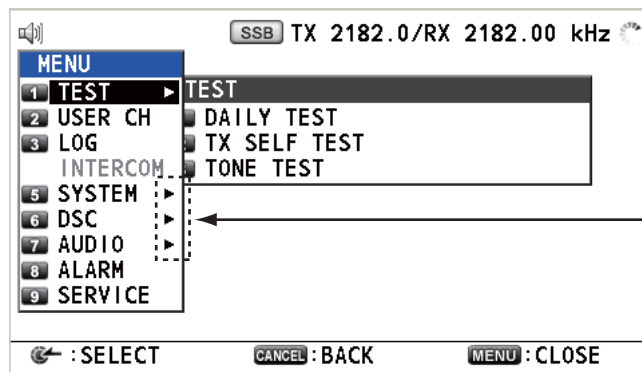
6. MENU OPERATION

The menu can be accessed from both the RT and DSC screens.

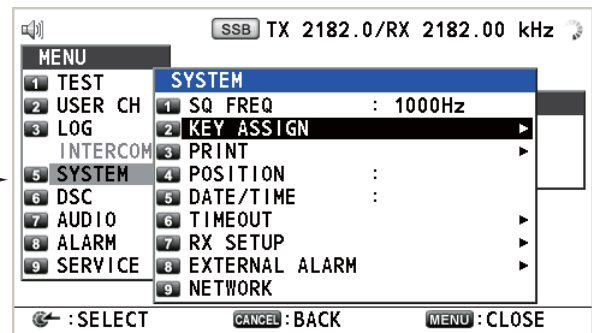
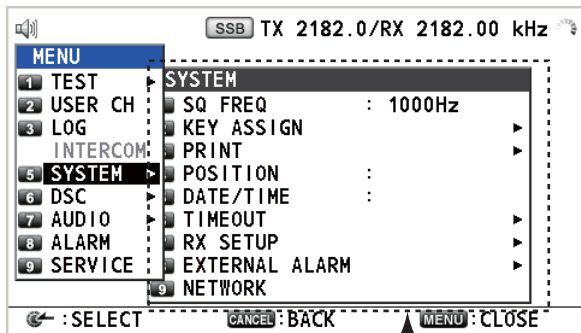
Note: The menu can not be opened when awaiting acknowledgement of a distress alert.

6.1 How to Open/Close the MENU Screen

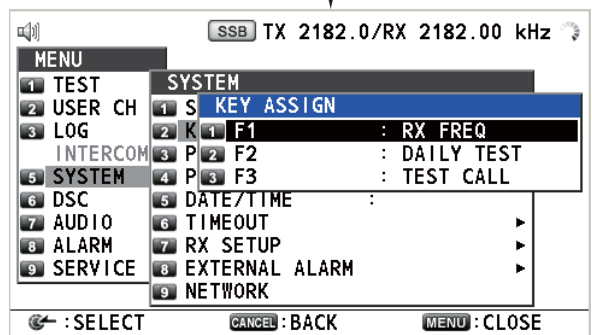
1. Press the **MENU** key to open the [MENU] screen.



2. Rotate the **ENTER** knob to select the desired menu item then push the knob. You can also select the desired menu item by pressing the 1 to 9 keys. The menu items that have a ► indicate additional menus.



Second layer



Third layer

Example screens for [SYSTEM]

3. To close the menu screen, press the **MENU** key.

6.2 User Channels

The [USER CH] menu allows registration and deleting of user TX and RX channels, which are available where permitted by the Authorities. A maximum of 256 channels can be registered. A user channel consists of four or five digits. The setting range is 01 to 029 for band, 00 to 99 for band channel.



NOTICE

FURUNO will assume no responsibility for the disturbance caused by the unlawful or improper setting of user channels.

6.2.1 List for user channels

Rotate the **ENTER** knob to select [USER CH] on the [MENU] screen then push the knob. The list for user channels appears.

CH	TX(kHz)	RX(kHz)	1/ 1
1: 0200	2000.0	2182.0	
2: 0301	3000.0	2182.0	
3: 0402	4000.0	2182.0	
4: 02903	5000.0	2182.0	
5: 02904	5000.0	2183.0	
6:			
7:			

Press the **6** key several times to select a desired mode among [SSB], [NBDP] and [DSC]. Rotate the **ENTER** knob (or press the **1** key for the previous page and the **3** key for the next page) to scroll the screen. To return to the [MENU] screen, press the **CANCEL** key.

6.2.2 How to register user channels

1. Press the **5** key on the [USER CH] list to open the [USER CH ENTRY] screen.

- With [MODE] selected, push the **ENTER** knob.

SSB
NBDP
DSC

- Rotate the **ENTER** knob to select the mode desired then push the knob.
- With [CH] selected, push the **ENTER** knob.

0
BAND : (1-29)
CH : (00-99)

- Enter band and band channel with the numeric keys.
- With [TX FREQ] selected, push the **ENTER** knob.
- Enter TX frequency with the numeric keys.
- With [RX FREQ] selected, push the **ENTER** knob.
- Enter RX frequency with the numeric keys.
- With [REGISTER] selected, push the **ENTER** knob.

6.2.3 How to edit user channels

- Rotate the **ENTER** knob to select the user channel to edit on the [USER CH] list then push the knob.

SSB TX 2182.0/RX 2182.00 kHz

USER CH (TOTAL 8/256)

CH	TX (kHz)	RX (kHz)	1/ 1
1: 0200	2000.0	2182.0	
2: 0301	3000.0	2182.0	
3: 0402	4000.0	2182.0	
4: 02903	5000.0	2182.0	
5: 02904	5000.0	2183.0	
6:			
7:			

SSB TX 2182.0/RX 2182.00 kHz

USER CH EDIT

MODE : **SSB**

CH : **0402**

TX FREQ : **4000.0 kHz**

RX FREQ : **2182.0 kHz**

<REGISTER>

CANCEL : BACK

Push the **ENTER** knob.

- Rotate the **ENTER** knob to select the item to edit then push the knob.
- Edit the settings referring to paragraph 6.2.2.
- Rotate the **ENTER** knob to select [REGISTER] then push the knob.

Overwrite this channel
Are you sure?
Yes **No**

Note: If the MODE and CH settings are also assigned to another channel, the alarm sounds and the following warning message appears when selecting [REGISTER].

Channel number overlaps.
CANCEL : Close window

- Rotate the **ENTER** knob to select [Yes] then push the knob.

6.2.4 How to delete user channels

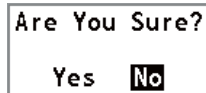
Open the [USER CH] list then follow the applicable procedure below.

Individual user channel

1. Rotate the **ENTER** knob to select the user channel to delete then press the **4** key.



2. With [DELETE SELECTION] selected, push the **ENTER** knob.



3. Rotate the **ENTER** knob to select [Yes] then push the knob.

User channels by mode

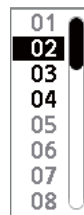
1. Press the **6** key several times to select the desired mode.
2. Press the **4** key.
3. Rotate the **ENTER** knob to select [DELETE LIST] then push the knob.
4. Rotate the **ENTER** knob to select [Yes] then push the knob.

All user channels

1. Press the **4** key.
2. Rotate the **ENTER** knob to select [DELETE ALL LISTS] then push the knob.
3. Rotate the **ENTER** knob to select [Yes] then push the knob.

6.2.5 How to sort the USER CH list by band

1. Press the **7** key on the [USER CH] list.



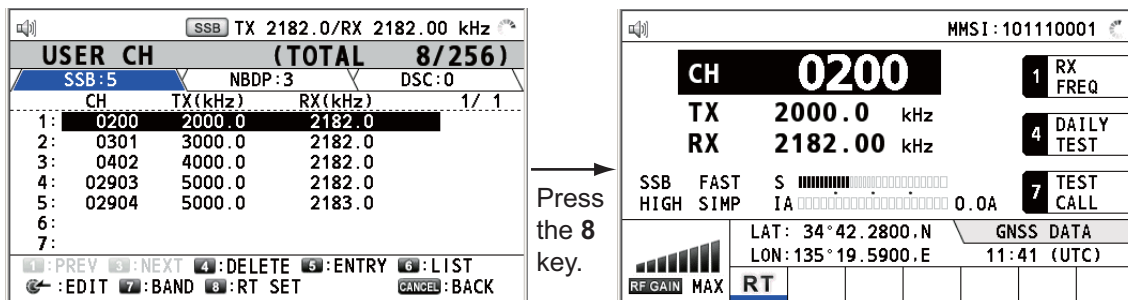
2. Rotate the **ENTER** knob to select the band desired then push the knob. For example, select [02]. Then the user channels are sorted in numerical order from the 02 band.

SSB TX 2182.0/RX 2182.00 kHz			
USER CH			(TOTAL 10/256)
SSB: 7		NBDP: 3	DSC: 0
CH	TX(kHz)	RX(kHz)	1/ 1
1: 0200	2000.0	2182.0	
2: 0201	2111.0	2182.0	
3: 0202	2222.0	2182.0	
4: 0301	3000.0	2182.0	
5: 0402	4000.0	2182.0	
6: 02903	5000.0	2182.0	
7: 02904	5000.0	2183.0	

1:PREV 3:NEXT 4:DELETE 5:ENTRY 6:LIST
 ←:EDIT 7:BAND 8:RT SET CANCEL:BACK

6.2.6 How to select user channels for SSB mode

Rotate the **ENTER** knob to select the user channel desired on the [USER CH] list then press the **8** key. The RT screen for the selected user channel appears.



6.3 Log File

Three log file modes are provided for storage of calls:

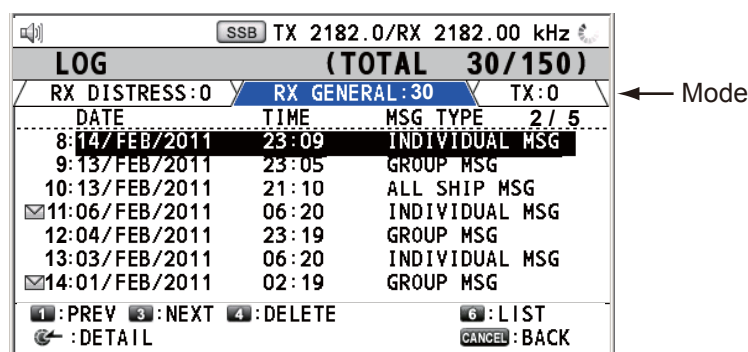
- [RX GENERAL] (received ordinary log)
- [RX DISTRESS] (received distress log)
- [TX] (transmitted log)

Each mode stores 50 calls. The latest call is saved as log no.1 and the log no. of all previous calls in that log increments by one. When the storage capacity is exceeded, the oldest call is deleted to make a room for the latest. The icon () indicates unread calls. Received distress calls are automatically deleted after 48 hours.

6.3.1 How to open a log file

The procedure to open a log is common to all logs.

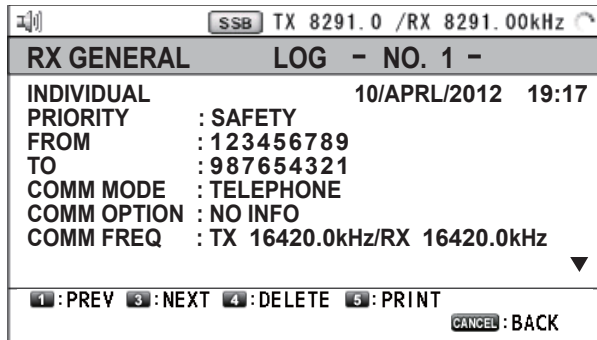
1. Rotate the **ENTER** knob to select [LOG] on the [MENU] screen then push the knob.



2. Press the **6** key to switch the log file mode in the sequence of [RX DISTRESS] → [RX GENERAL] → [TX] → [RX DISTRESS] → ...

6. MENU OPERATION

- When there are multiple pages, press the **1** key for the previous page and the **3** key for the next page. Rotate the **ENTER** knob to select a desired log then push the knob. The contents of the selected log file are displayed as below. To return to the [MENU] screen, press the **CANCEL** key.



← Rotate the **ENTER** knob to see the information not shown on this screen.

- Rotate the **ENTER** knob to scroll the log. Press the **1** key for the previous log file and the **3** key for the next log file.
- To print the selected log, press the **5** key.
- To return to the log list, press the **CANCEL** key.

6.3.2 How to delete log files

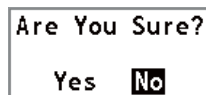
You can delete the log files except RX DISTRESS. Open the log file list then follow the applicable procedure below.

Individual log file

- Rotate the **ENTER** knob to select the log file to delete then press the **4** key.



- With [DELETE SELECTION] selected, push the **ENTER** knob.



- Rotate the **ENTER** knob to select [Yes] then push the knob.

You can delete a log file by pressing the **4** key on the screen shown at step 3 in paragraph 6.3.1.

Specify log files by mode

- Press the **6** key several times to select [RX GENERAL] or [TX].
- Press the **4** key.
- Rotate the **ENTER** knob to select [DELETE LIST] then push the knob.
- Rotate the **ENTER** knob to select [Yes] then push the knob.

All log files

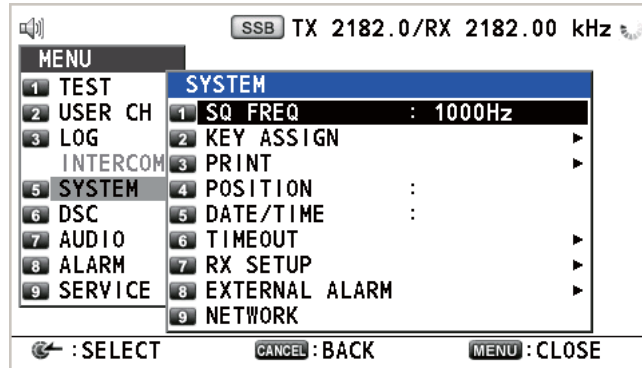
- Press the **4** key.
- Rotate the **ENTER** knob to select [DELETE ALL LISTS] then push the knob.
- Rotate the **ENTER** knob to select [Yes] then push the knob.

The log files are renumbered to reflect the deletion.

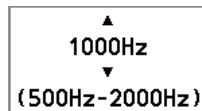
6.4 Squelch Frequency

The squelch frequency (ex. for high voice) can be changed as follows (default setting: 1000 Hz):

1. Rotate the **ENTER** knob to select [SYSTEM] on the [MENU] screen then push the knob.



2. With [SQ FREQ] selected, push the **ENTER** knob.



3. Rotate the **ENTER** knob to adjust frequency (setting range: 500-2000 Hz) then push the knob.

6.5 Key Assignment

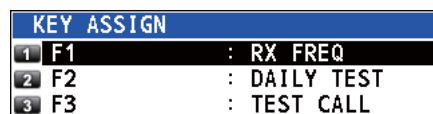
You can program the **1**, **4** and **7** keys to provide one-touch access to a required function. The **1** key is assigned with F1, the **4** key with F2 and the **7** key with F3. The default programs are [RX FREQ] for F1, [DAILY TEST] for F2, and [TEST CALL] for F3. You can program the keys with the functions listed below.

- TX/RX FREQ
- AGC
- TEST CALL
- LOG
- ----- (NONE)*
- RX FREQ
- TX PWR
- MSG FILE
- INTERCOM
- MODE
- TX MONITOR
- DAILY TEST
- CLARIFIER

*: NONE: Not assigned any function

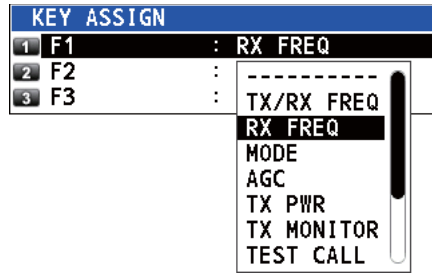
Note: You cannot assign the same function to two function keys.

1. Rotate the **ENTER** knob to select [SYSTEM] on the [MENU] screen then push the knob.
2. Rotate the **ENTER** knob to select [KEY ASSIGN] then push the knob.



6. MENU OPERATION

3. Rotate the **ENTER** knob to select [F1], [F2] or [F3] then push the knob.

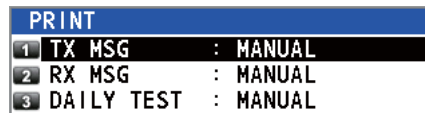


4. Rotate the **ENTER** knob to select the function desired then push the knob.

6.6 How to Print Messages

The [PRINT] menu enables/disables automatic printing of all transmitted and received calls and the results of the daily test.

1. Rotate the **ENTER** knob to select [SYSTEM] on the [MENU] screen then push the knob.
2. Rotate the **ENTER** knob to select [PRINT] then push the knob.

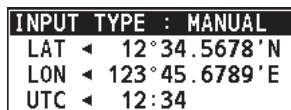


3. With [TX MSG] selected, push the **ENTER** knob.
4. Rotate the **ENTER** knob to select [AUTO] or [MANUAL] then push the knob.
5. Set [RX MSG] and [DAILY TEST] similarly.

6.7 Position Setting

Do the following to set your position:

1. Rotate the **ENTER** knob to select [SYSTEM] on the [MENU] screen then push the knob.
2. Rotate the **ENTER** knob to select [POSITION] then push the knob.



3. With [INPUT TYPE] selected, push the **ENTER** knob.
4. Rotate the **ENTER** knob to select [GNSS], [MANUAL] or [NO INFO] then push the knob.

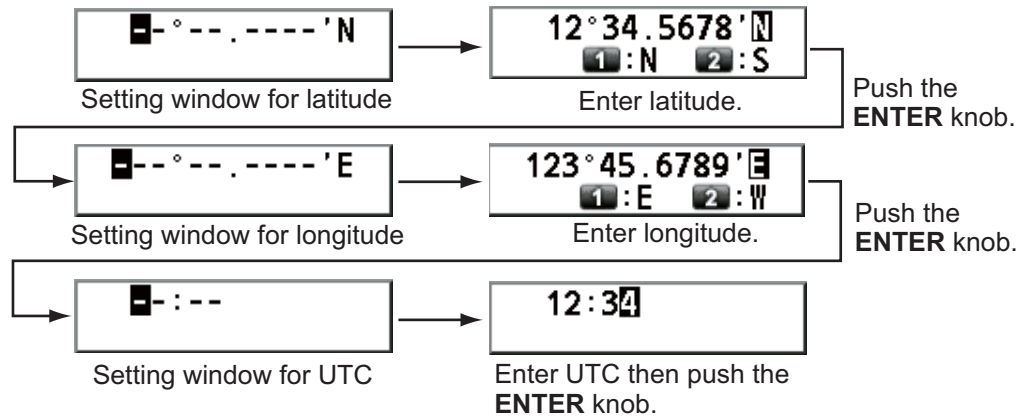
[GNSS]: The position data from GPS

[MANUAL]: Set the position data manually

[NO INFO]: No position data

For [MANUAL], go to next step.

5. For manual input, use the numeric keys to enter latitude/longitude of your position, and UTC. To change coordinate, select it and press the **1** key for North or East; the **2** key for South or West. After entering each data, push the **ENTER** knob.



Note: When the setting of [INPUT TYPE] is [MANUAL], the message "WARNING: Position data is not updated! Position data was older than 4.0H. Update it. [CANCEL]: Stop alarm" appears to ask you to update position.

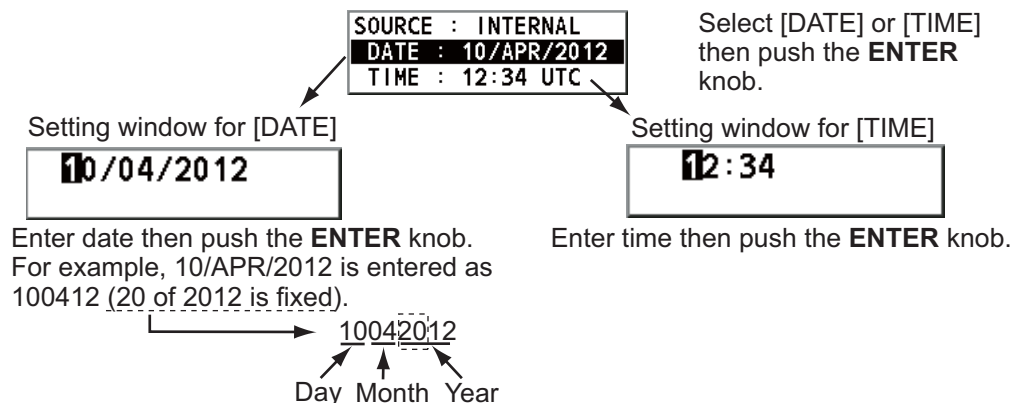
6.8 Date and Time Setting

Set the date and time for the system.

1. Rotate the **ENTER** knob to select [SYSTEM] on the [MENU] screen then push the knob.
2. Rotate the **ENTER** knob to select [DATE/TIME] then push the knob.
 - Date or time cannot be adjusted when they are input from GPS navigator.

SOURCE : GNSS
DATE : 10/APR/2012
TIME : 12:34 UTC

- If date or time is not input from GPS navigator, enter date and time with the numeric keys.



Note: When manually entering date and time, use UTC (Universal Time Coordinated). Do not use local time.

6.9 Timeout Setting

The menu screen and/or the inactive sessions (icons) can be closed automatically when there is no menu operation for a specific time. You can set the time interval for auto closing of the menu and inactive session.

1. Rotate the **ENTER** knob to select [SYSTEM] on the [MENU] screen then push the knob.
2. Rotate the **ENTER** knob to select [TIMEOUT] then push the knob.

TIMEOUT	
1	MENU END : 10MIN
2	DSC GENERAL : 15MIN
3	RX DISTRESS : NO TIMEOUT
4	SSB : 30SEC
5	TELEX : NO TIMEOUT
	FAX : NO TIMEOUT
7	AM : NO TIMEOUT

*: [FAX] is unavailable.

3. Rotate the **ENTER** knob to select the item desired then push the knob.
4. Rotate the **ENTER** knob to select time interval then push the knob. [NO TIMEOUT] leaves the menu screen and/or the inactive sessions open until you close them manually.

Item	Description	Option
[MENU END]	Close the menu screen automatically.	10MIN, NO TIMEOUT
[DSC GENERAL]	Close the inactive sessions except the distress alert.	15MIN, NO TIMEOUT
[RX DISTRESS]	Close the inactive sessions for the receiving distress alert.	
[SSB]	Close the inactive sessions for RT of SSB and LSB.	10SEC, 30SEC, 10MIN
[TELEX]	Close the inactive sessions for RT of TELEX.	10SEC, 30SEC, 10MIN, NO TIMEOUT
[FAX]*	Close the inactive sessions for RT of FAX.	
[AM]	Close the inactive sessions for RT of AM.	

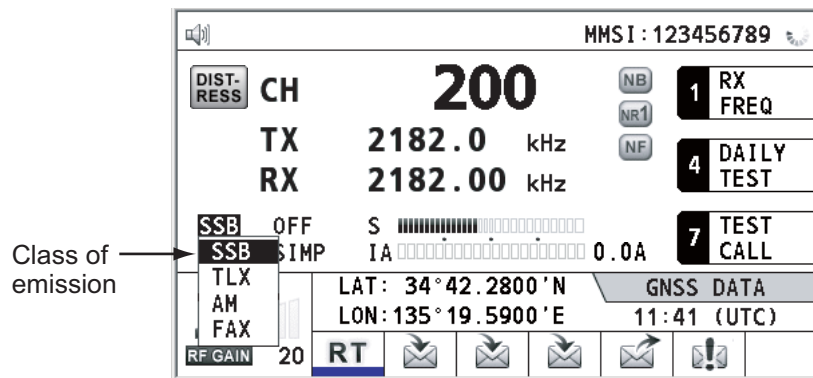
*: Refer to section 6.10.

6.10 FAX Enable/Disable

You can enable or disable FAX use as follows.

1. Rotate the **ENTER** knob to select [SYSTEM] on the [MENU] screen then push the knob.
2. Rotate the **ENTER** knob to select [RX SETUP] then push the knob.
3. Rotate the **ENTER** knob to select [FAX RX] then push the knob.

- Rotate the **ENTER** knob to select [ENABLE] or [DISABLE] then push the knob. For [ENABLE], "FAX" is added to the class of emission selection menu.



6.11 How to Select the Antenna

Select the antenna to use for TX and RX, common or separate.

- Rotate the **ENTER** knob to select [SYSTEM] on the [MENU] screen then push the knob.
- Rotate the **ENTER** knob to select [RX SETUP] then push the knob.
- Rotate the **ENTER** knob to select [ANT SELECT] then push the knob.
- Rotate the **ENTER** knob to select [TRX ANT] or [RX ANT] then push the knob.

Note 1: You can not select [RX ANT] without R_ANT. Contact your dealer.

Note 2: When sharing the WR antenna with R_ANT, select [RX ANT] so that you can always watch the frequency during transmission.

6.12 Clarifier Setting

You can fine-tune the receiving frequency with the clarifier.

- Rotate the **ENTER** knob to select [SYSTEM] on the [MENU] screen then push the knob.
- Rotate the **ENTER** knob to select [RX SETUP] then push the knob.
- Rotate the **ENTER** knob to select [CLARIFIER] then push the knob.
- Rotate the **ENTER** knob to select [ON] or [OFF] then push the knob. For [ON], the indication for clarifier setting appears on the RT screen as shown below.

