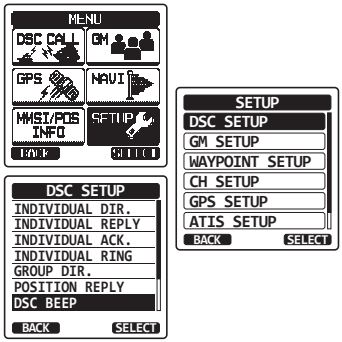
10.7.4 Setting up a Position Request Ringer

The **HX870** has the capability to turn off the position request ringer.



1. Press the **MENU** key to display "MENU".
2. Press the **CH▲/CH▼/◄/►** key to select "SETUP".
3. Select "DSC SETUP" menu with the **CH▲/CH▼** key.
4. Press the **[SELECT]** soft key, then select "DSC BEEP" with the **CH▲/CH▼** key.
5. Press the **[SELECT]** soft key, then select "POS REQUEST" with the **CH▲/CH▼** key.
6. Press the **[SELECT]** soft key, then select "OFF" with the **CH▲/CH▼** key.
7. Press the **[SELECT]** soft key to store the selected setting.
8. Press the **CLR** key to return to radio operation.

To re-enable the ringer tone, repeat the above procedure, pressing the **CH▲/CH▼** key to select "ON" in step 6 above.

10.8 POSITION REPORT

The feature is similar to position request, however instead of requesting a position of another vessel this function allows you to send your position to another vessel. Your vessel must mark the internal GPS receiver for the **HX870** to send the position.

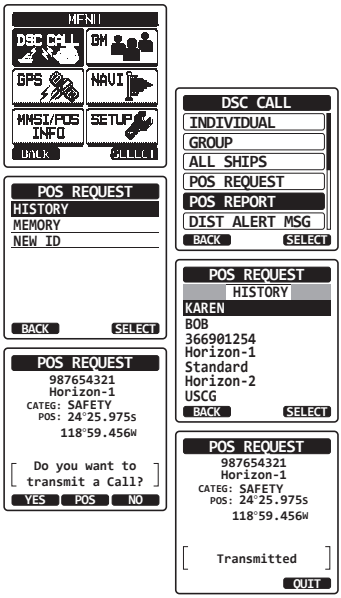
NOTE

> To transmit a position report call, the **HX870** individual directory must be programmed with stations you wish to send your position to. To setup this directory refer to section "**10.5.1 Setting up the Individual / Position Call Directory**".

10.8.1 Transmitting a DSC Position Report Call

DSC Position Report Call using the Individual/Position Directory

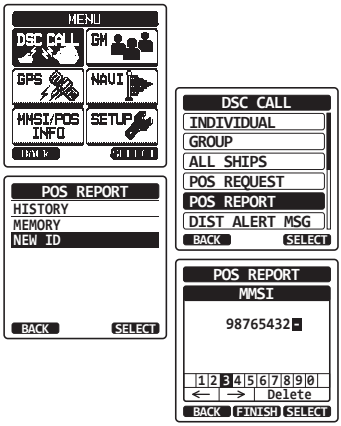
1. Press the **MENU** key to display "MENU", then select "DSC CALL" with the **CH▲/CH▼/◄/►** key.
2. Press the **CH▲/CH▼** key to select "POS REPORT". (To cancel, press the **[BACK]** soft key.)
3. Press the **[SELECT]** soft key.
4. Press the **CH▲/CH▼** key to select the category ("HISTORY", "MEMORY" or "NEW ID").
5. Press the **[SELECT]** soft key.
6. Press the **CH▲/CH▼** key to select the name in the directory, then press the **[SELECT]** soft key.
7. Press the **[YES]** soft key to send your position to the selected vessel.
8. Press the **[QUIT]** soft key to return to radio operation.



DSC Position Report Call Manually Entering an MMSI

This feature allows you to send your position to another vessel by manually entering the MMSI of the ship you want to send your position to.

1. Press the **MENU** key to display "MENU", then select "DSC CALL" with the **CH▲/CH▼/◄/►** key.
2. Press the **CH▲/CH▼** key to select "POS REPORT". (To cancel, press the **[QUIT]** soft key.)
3. Press the **[SELECT]** soft key. The transceiver will beep, and the POS report call menu will appear.
4. Press the **CH▲/CH▼** key to select "NEW ID", then press the **[SELECT]** soft key.
5. Press the **CH▲/CH▼** key to select the first number of the MMSI which you want to contact, then press the **[SELECT]** soft key to step to the next number.



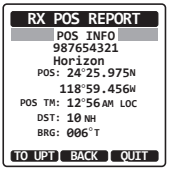
6. Repeat step 5 to set the MMSI number. If a mistake was made entering in the MMSI number, repeatedly press the **[BACK]** soft key until the wrong number is selected, then press the **CH▲/CH▼** key to correct the entry.
7. When finished entering the MMSI number, press the **[FINISH]** soft key.
8. If another position is displayed, press the **[POS]** soft key to go to the position information input screen. After inputting new position information, press the **[FINISH]** soft key to confirm.

9. Press the **[YES]** soft key to send your position to the selected vessel.
10. Press the **[QUIT]** soft key to return to radio operation.

10.8.2 Receiving a DSC Position Report Call

When another vessel transmits their vessels location to the **HX870** the following will happen:

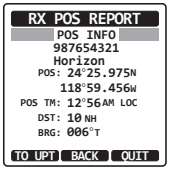
1. A ringing sound will be produced when the call is received and NMEA sentences (DSC, DSE) are outputted on the USB Data Jack.
2. Press any key to stop ringing.
3. Press the **[INFO]** soft key to see more detailed position information of the station.
4. To exit to radio mode, press the **[QUIT]** soft key.

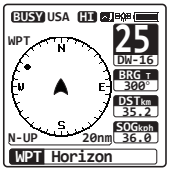


10.8.3 Navigating to a Position Report

The **HX870** has a feature that allows navigation to a received position report call by using the compass display. Navigating to the position of a position report call may be enabled by the procedure below.

1. After the position report call has been received, press the **[TO WPT]** soft key.
2. To start navigating using the compass display, press the **[START]** soft key until the compass page is shown. The display indicates the distance and direction of the received vessel, and also the compass indicates the received vessel by dot (●).





10.8.4 Stopping Navigation to a Position Report

1. Press one of the soft keys to show the key selections.
2. Press the **[STOP]** key. The radio will stop navigating to a the waypoint and the Normal VHF display will be shown.

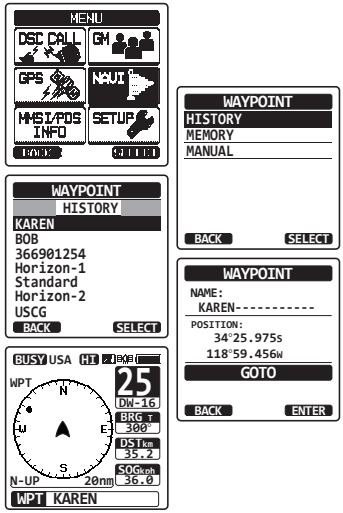
10.8.5 Saving a Position Report as a Waypoint

The **HX870** can save a position report call in the radio's memory as a waypoint.

1. After the position report call has been received, press the **[SAVE]** soft key.
2. Press the **CH▲/CH▼** key to change the first letter in the name of the waypoint and press the **[SELECT]** soft key.
3. Repeat step 2 until the WPT name is entered.
4. Press the **[FINISH]** soft key to save the waypoint into memory.

10.8.6 Navigating to a Saved Waypoint

1. Press the **MENU** key to display "MENU".
2. Select "NAVI" with the **CH▲/CH▼/◄/►** key.
3. Press the **[SELECT]** soft key.
4. Press the **CH▲/CH▼** key to select the category ("HISTORY", "MEMORY" or "MANUAL").
5. Press the **[SELECT]** soft key.
6. Press the **CH▲/CH▼** key to select the waypoint name and press the **[SELECT]** soft key.
7. Press the **[ENTER]** key so show the compass display and to navigate to the waypoint. The display indicates the distance and direction of the saved waypoint, and also the compass indicates the saved waypoint by dot (●).

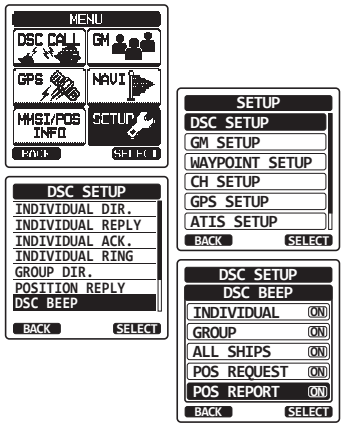


To stop the navigation to a saved waypoint, press the **[STOP]** soft key.

10.8.7 Setting up a Position Report Ringer

The **HX870** has the capability to turn off the position report ringer.

1. Press the **MENU** key to display "MENU".
2. Press the **CH▲/CH▼/◄/►** key to select "SETUP".
3. Select "DSC SETUP" menu with the **CH▲/CH▼** key.
4. Press the **[SELECT]** soft key, then select "DSC BEEP" with the **CH▲/CH▼** key.
5. Press the **[SELECT]** soft key, then select "POS REPORT" with the **CH▲/CH▼** key.
6. Press the **[SELECT]** soft key, then select "OFF" with the **CH▲/CH▼** key.
7. Press the **[SELECT]** soft key to store the selected setting.
8. Press the **CLR** key to return to radio operation.



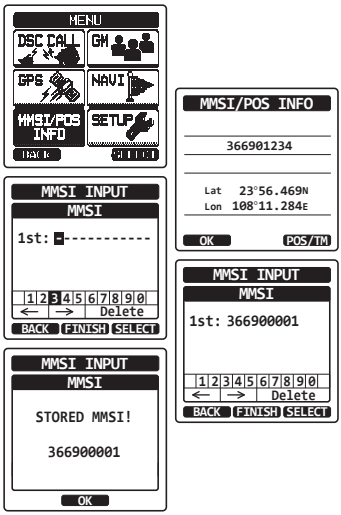
To re-enable the ringer tone, repeat the above procedure, pressing the **CH▲/CH▼** key to select "ON" in the step 6 above.

10.9 MANUAL INPUT OF A GPS LOCATION (LAT/LON)

You may send the latitude and longitude of your vessel manually even if the **HX870** is located in an area where GPS reception is limited.

After the position is entered, transmitting a DSC distress, position request reply, or position report will contain the manually entered position.

1. Press the **MENU** key to display "MENU".
2. Press the **CH▲/CH▼/◄/►** key to select "MMSI/POS INFO" menu then press the **[SELECT]** soft key.
3. Press the **[POS/TM]** soft key.
4. Enter the latitude/longitude of your vessel and your local UTC time in the 24-hour notation by the **CH▲/CH▼** key. Press the **CH▲/CH▼** key to select the number and press the **[SELECT]** soft key to move the cursor to the next character. You may backspace the cursor by pressing the **[BACK]** soft key, if you make a mistake.
5. Press the **[FINISH]** soft key to store the selected setting.
6. Press the **[OK]** soft key.
7. Press the **CLR** key to return to radio operation.

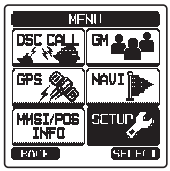


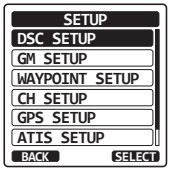
10.10 AUTO POS POLLING

The **HX870** has the capability to automatically track seven stations programmed into the individual directory.

The following procedure allows the time interval between position requests to be setup.

10.10.1 Setting up the Polling Time Interval



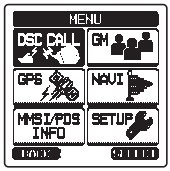


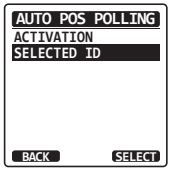
1. Press the **MENU** key to display "MENU".
2. Press the **CH▲/CH▼/◄/►** key to select "SETUP".
3. Select "DSC SETUP" menu with the **CH▲/CH▼** key.
4. Press the **[SELECT]** soft key, then select "AUTO POS INTERVAL" with the **CH▲/CH▼** key.
5. Press the **[SELECT]** soft key.
6. Press the **CH▲/CH▼** key to select the desired interval time (30 second, 1, 2, 3, 4 and 5 minutes) and press the **[ENTER]** soft key.
7. Press the **CLR** key to return to radio operation.

10.10.2 Selecting Stations to be Automatically Polled (Tracked)

NOTE

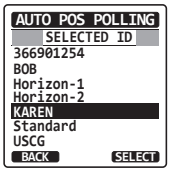
> The radio uses the individual directory to select stations. Refer to section "**10.5.1 Setting up the Individual / Position Call Directory**" and to enter MMSI of stations you want to poll before proceeding.





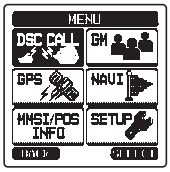
1. Press the **MENU** key to display "MENU", then select "DSC CALL" with the **CH▲/CH▼/◄/►** key.
2. Press the **CH▲/CH▼** key to select "AUTO POS POLLING", then press the **[SELECT]** soft key.
3. Press the **CH▲/CH▼** key to select the "SELECT ID", then press the **[SELECT]** soft key.

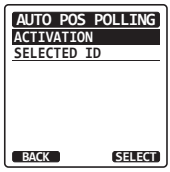
4. The radio will show 7 calling stations to be selected, select a station and press the **[SELECT]** soft key.
5. The radio will show the stations programmed in the individual directory. Press the **CH▲**/**CH▼** key to select the desired station and press the **[SELECT]** soft key.
6. Repeat steps 4 and 5 for CALL 2, CALL 3 and CALL 4 entries.
7. When finished, press the **CLR** key to exit to the radio mode.



10.10.3 Enabling/Disabling Auto POS Polling

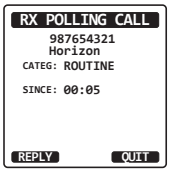
1. Press the **MENU** key to display "MENU", then select "DSC CALL" with the **CH▲**/**CH▼**/**◄**/**►** key.
2. Press the **CH▲**/**CH▼** key to select "AUTO POS POLLING", then press the **[SELECT]** soft key.
3. Press the **CH▲**/**CH▼** key to select the "ACTIVATION", then press the **[SELECT]** soft key.
4. Select "START" to enable transmissions to the stations or "STOP" to disable transmissions to stations.
5. Press the **[ENTER]** soft key.
6. Press the **CLR** key to return to radio operation.
7. Auto POS Polling starts and "Ⓐ" will light up on the screen.





NOTE

When the radio receives position reports from a called vessel the display will show the image as in the right and also output NMEA 0183 DSC and DSE sentences to a GPS chart plotter from DATA jack (USB).



10.11 DSC TEST

This function is used to contact another DSC equipped vessel to ensure the DSC functions of the radio are operating.

NOTE

> To use this feature, the radio you will be transmitting the test call to needs to have the DSC Test feature.

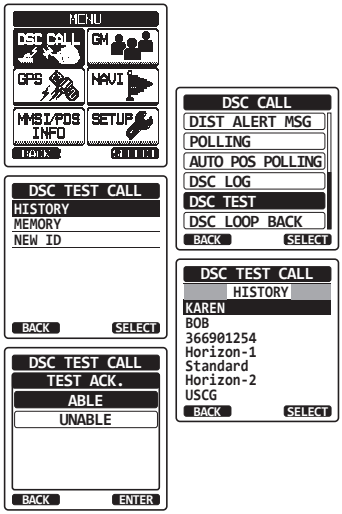
To perform the DSC test you will need to enter a MMSI of another vessel into the individual directory or manually enter in the MMSI using the procedure below.

10.11.1 Programming MMSI into Individual Directory

Refer to section "**10.5.1 Setting up the Individual / Position Call Directory**".

10.11.2 DSC Test call by using Individual/Position Directory

1. Press the **MENU** key to display "MENU", then select "DSC CALL" with the **CH▲/CH▼/◄/►** key.
2. Press the **CH▲/CH▼** key to select "DSC TEST", then press the **[SELECT]** soft key.
3. Press the **CH▲/CH▼** key to select the category ("HISTORY", "MEMORY" or "NEW ID").
4. Press the **CH▲/CH▼** key to select the ship name and press the **[SELECT]** soft key.
5. Press the **[YES]** soft key to transmit the DSC test call to the other vessel.
6. Press the **[QUIT]** soft key to return to radio operation.

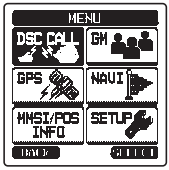


NOTE

> After the radio receives a test call reply from the vessel that was called, the radio will ring and show "RX TEST CALL" display, which confirms the radio you called received the test call.

10.11.3 DSC Test Call by Manually Entering an MMSI

1. Press the **MENU** key to display "MENU", then select "DSC CALL" with the **CH▲/CH▼/◄/►** key.
2. Press the **CH▲/CH▼** key to select "DSC TEST", then press the **[SELECT]** soft key.
3. Press the **CH▲/CH▼** key to select "NEW ID" and press the **[SELECT]** soft key.
4. Press the **CH▲/CH▼** key to select the first digit in the MMSI and press the **[SELECT]** soft key.
5. Repeat step 4 until all the numbers of the MMSI are shown on the display.
6. Press the **[FINISH]** soft key to show the test call page.
7. Press the **[YES]** soft key to transmit the DSC test call to the other vessel.
8. Press the **[QUIT]** soft key to return to radio operation.



NOTE

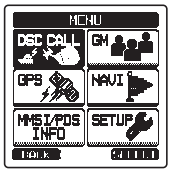
After the radio receives a test call reply from the vessel that was called, the radio will ring and show "RX TEST CALL" display, which confirms the radio you called received the test call.

10.12 POLLING CALL

The **HX870** has the capability to track another vessel.

10.12.1 Transmitting a Polling Call to Another Vessel

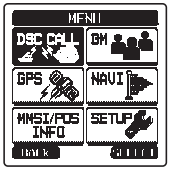
Polling Call using the Individual/Position Call Directory



1. Press the **MENU** key to display "MENU", then select "DSC CALL" with the **CH▲/CH▼/◄/►** key.
2. Press the **CH▲/CH▼** key to select "POLLING", then press the **[SELECT]** soft key.
3. Press the **CH▲/CH▼** key to select the category ("HISTORY", "MEMORY" or "NEW ID").
4. Press the **CH▲/CH▼** key to select a name that was stored in the individual/position call directory, then press the **[SELECT]** soft key.
5. Press the **[YES]** soft key to transmit the polling call.
6. After a polling call is transmitted, if the reply signal is not received, "Waiting for ACK" is shown on the display which means the **HX870** is waiting for the vessel you called to send an acknowledgement.
7. To transmit the call again, press the **[RESEND]** soft key.
8. When an acknowledgement is received from the polled vessel, the **HX870** will show the display as in the right.
9. Press the **[QUIT]** soft key to return to radio operation.

Polling Call by Manually Entering an MMSI

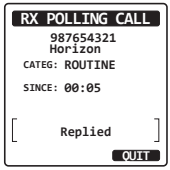
This feature allows you to contact a vessel by manually entering the MMSI of the ship you want to track.



1. Press the **MENU** key to display "MENU", then select "DSC CALL" with the **CH▲/CH▼/◄/►** key.
2. Press the **CH▲/CH▼** key to select "POLLING CALL", then press the **[SELECT]** soft key.
3. Press the **CH▲/CH▼** key to select "NEW ID" and press the **[SELECT]** soft key.
4. Press the **CH▲/CH▼** key to select the first number in the MMSI and press the **[SELECT]** soft key.
5. Repeat step 4 until all the digits of the MMSI are shown on the display.
6. If a mistake was made entering in the MMSI number, repeatedly press the **[BACK]** soft key until the wrong digit is selected, then press the **CH▲/CH▼** key to correct the entry.
7. When finished entering the MMSI number, press the **[FINISH]** soft key.
8. Press the **[YES]** soft key to transmit the polling call.
9. Press the **[QUIT]** soft key to return to radio operation.

10.12.2 Receiving a Polling Call

When another vessel transmits a polling call to the **HX870** the following will happen:



1. When a polling call is received, the radio will automatically respond to the calling vessel.
2. To exit from the polling call display, press the **[QUIT]** soft key.

10.13 DSC LOG OPERATION

The **HX870** logs transmitted calls, received DSC distress calls, and other calls (individual, group, all ships, etc.). The DSC log feature is similar to an answer machine where calls are recorded for review and a " " icon will appear on the radios display. The **HX870** can store up to 24 transmitted calls, up to the latest 27 distress calls, and up to the latest 64 other calls (individual, group, all ships, position report, position request ack, test call ack, and polling calls).

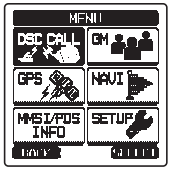
NOTE

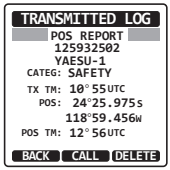
When the "DSC LOG" menu is selected, the **HX870** may display high-priority logged call automatically.

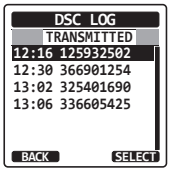
10.13.1 Reviewing and Resending a Transmitted Logged Call

The **HX870** allows transmitted logged calls to be reviewed and to resend the call.

1. Press the **MENU** key to display "MENU", then select "DSC CALL" with the **CH▲/CH▼/◄/►** key.
2. Press the **CH▲/CH▼** key to select "DSC LOG" menu.
3. Press the **[SELECT]** soft key, then confirm "TRANSMITTED" is selected.
4. Press the **[SELECT]** soft key, then press the **CH▲/CH▼** key to select the station (name or MMSI number) you want to review and/or resend the call.
5. Press the **[SELECT]** soft key to review details for the selected station.
6. Press the **[CALL]** soft key to resend the call or press the **[BACK]** soft key repeatedly to go back to the DSC transmitted call list.



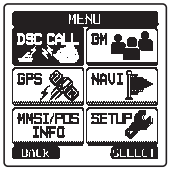


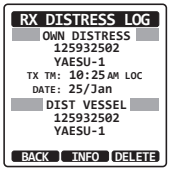


10.13.2 Reviewing a Logged DSC Distress Call

The **HX870** allows logged DSC distress call to be reviewed.

1. Press the **MENU** key to display "MENU", then select "DSC CALL" with the **CH▲/CH▼/◄/►** key.
2. Press the **CH▲/CH▼** key to select "DSC LOG" menu.
3. Press the **[SELECT]** soft key, then press the **CH▲/CH▼** key to select "RX DISTRESS".
4. Press the **[SELECT]** soft key, then press the **CH▲/CH▼** key to select the station (name or MMSI number) you want to review and/or relay the distress call to other vessels.
   Note: When there is an unread received call, "✉" icon will appear behind the station name (or MMSI number).
5. Press the **[SELECT]** soft key to review details for the selected station.
6. Press the **CLR** key to return to radio operation.



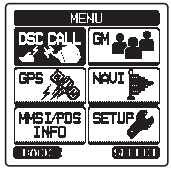


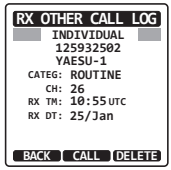
NOTE

Not all DSC radios can receive a DSC distress relay call.

10.13.3 Reviewing Other Logged Calls

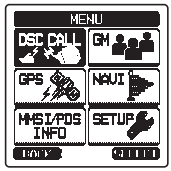
1. Press the **MENU** key to display "MENU", then select "DSC CALL" with the **CH▲/CH▼/◄/►** key.
2. Press the **CH▲/CH▼** key to select "DSC LOG" menu.
3. Press the **[SELECT]** soft key, then press the **CH▲/CH▼** key to select "RX OTHER CALL".
4. Press the **[SELECT]** soft key, then press the **CH▲/CH▼** key to select the station (name or MMSI number) you want to review and/or call back. When there is an unread received call, " " icon will appear behind the station name (or MMSI number).
5. Press the **[SELECT]** soft key to review details for the selected station.
6. Press the **CLR** key to return to radio operation.





10.13.4 Deleting a Call from the DSC Log Directory

1. Press the **MENU** key to display "MENU", then select "DSC CALL" with the **CH▲/CH▼/◄/►** key.
2. Press the **CH▲/CH▼** key to select "DSC LOG" menu.
3. Press the **[SELECT]** soft key, then press the **CH▲/CH▼** key to select "LOG DELETE" menu.
4. Press the **[SELECT]** soft key, then press the **CH▲/CH▼** key to select the category ("TRANSMITTED LOG", "RX DISTRESS" or "RX OTHER CALL") to be deleted.
5. Press the **[SELECT]** soft key, then press the **CH▲/CH▼** key to select "ALL LOG DELETE" or "VIEW LOG LIST".
   1) If you want to delete all stations at a time, select the "ALL LOG DELETE" with the **CH▲/CH▼** key, press the **[SELECT]** soft key.



2) If you want to delete one of the logged stations, select the "VIEW LOG LIST" with the **CH▲/CH▼** key, then press the **[SELECT]** soft key. Press the **CH▲/CH▼** key to select the station (name or MMSI number) to be deleted, then press the **[DELETE]** soft key.
3) The display will show "Do you want to delete a Log?". Press the **[OK]** soft key.

6. Press the **CLR** key to return to radio operation.

"ALL LOG DELETE" "VIEW LOG LIST"

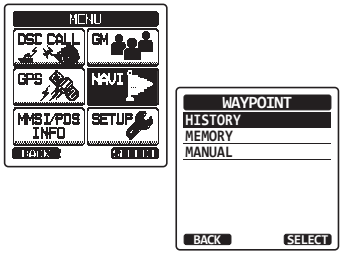
11 NAVIGATION

The **HX870** is capable of storing up to 200 waypoints and navigating to them using the compass page.

In addition DSC distress calls with position or a position received from another DSC radio using DSC polling can be navigated to.

11.1 OPERATION

11.1.1 Operation



1. Press the **MENU** key to display "MENU", then select "NAVI" with the **CH▲/CH▼/◄/►** key.
2. Press the **[SELECT]** soft key, then select "WAYPOINT".
3. Press the **[SELECT]** soft key, then select the desired category ("HISTORY" or "MEMORY"), then press the **[SELECT]** soft key.
4. Press the **CH▲/CH▼** key to select a way point, then press the **[SELECT]** soft key. The navigation screen appears.
5. Press the **CLR** key to return to radio operation.

11.1.2 Navigating to a Saved Waypoint

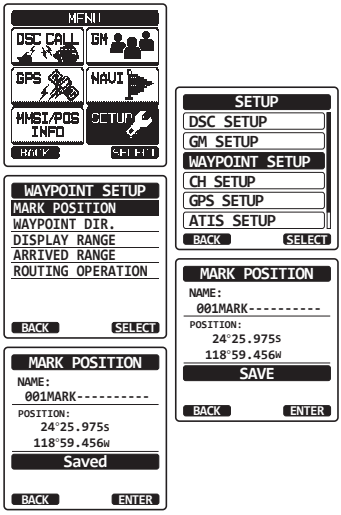
The **HX870** can navigate to a saved waypoint using the compass display. Refer to section "**10.8.6 Navigating to a Saved Waypoint**" for details.

11.2 SETTING UP WAYPOINT DIRECTORY

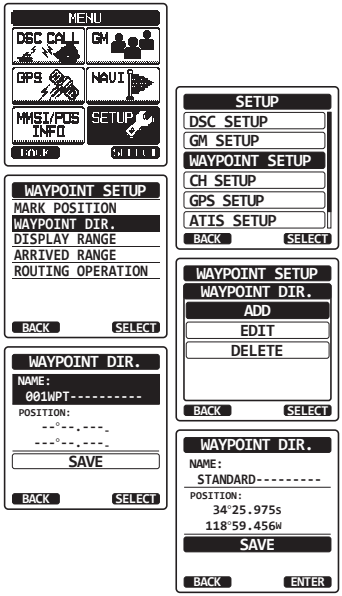
11.2.1 Marking a Position

This feature allows the radio to mark the current position of the vessel.

1. Press the **MENU** key to display "MENU", then select "SETUP" with the **CH▲/CH▼/◄/►** key.
2. Press the **CH▲/CH▼** key to select "WAYPOINT SETUP".
3. Press the **[SELECT]** soft key, then select "MARK POSITION" with the **CH▲/CH▼** key.
4. Press the **[SELECT]** soft key, then enter the waypoint name by pressing the **CH▲/CH▼** key to select the first letter.
5. Press the **[SELECT]** soft key to store the first letter and to move to the second letter in the name.
6. Repeat steps 4 and 5 until the name is shown. Select "→" to skip a letter if needed.
7. With "SAVE" highlighted, press the **[SELECT]** soft key to save the waypoint into memory.
8. Press the **CLR** key to return to radio operation.



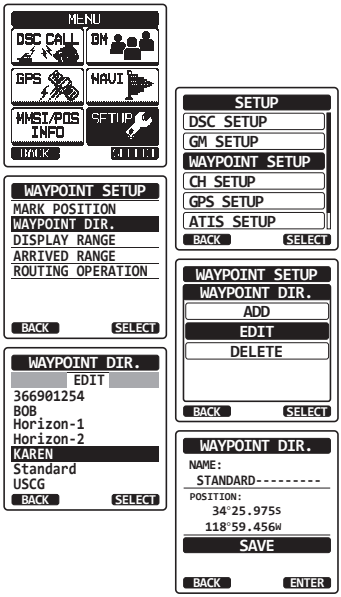
11.2.2 Adding a Waypoint



1. Press the **MENU** key to display "MENU", then select "SETUP" with the **CH▲/CH▼/◄/►** key.
2. Press the **CH▲/CH▼** key to select "WAYPOINT SETUP".
3. Press the **[SELECT]** soft key, then select "WAYPOINT DIR." with the **CH▲/CH▼** key.
4. Press the **[SELECT]** soft key, then select "ADD" with the **CH▲/CH▼** key.
5. Press the **[SELECT]** soft key.
6. Enter the waypoint name by rotating the **CH▲/CH▼** key to select the first letter.
7. Press the **[SELECT]** soft key to store the first letter and to move to the second letter in the name.
8. Repeat steps 6 and 7 until the name is shown. Select "→" to skip a letter if needed.
9. With "SAVE" highlighted, press the **[SELECT]** soft key, then enter the coordinates of the waypoint position by pressing the **CH▲/CH▼** key to select the first digit in the latitude.
10. Press the **[SELECT]** soft key to store the first number and to move to the second number in the position.
11. Repeat steps 9 and 10 until the latitude is shown including N or S in the last digit.
12. Press the **[SELECT]** soft key to select the first digit of the longitude is blinking.
13. Press the **CH▲/CH▼** key to select the first digit in the longitude.
14. Press the **[SELECT]** soft key to store the first number and to move to the second number in the position.
15. Repeat steps 13 and 14 until the longitude is shown including E or W in the last digit.
16. After all information is entered, with "SAVE" highlighted, press the **[ENTER]** soft key to store the waypoint into memory.
17. Press the **CLR** key to return to radio operation.

11.2.3 Editing a Waypoint

This function allows a previously entered waypoint to be edited.



1. Press the **MENU** key to display "MENU", then select "SETUP" with the **CH▲/CH▼/◄/►** key.
2. Press the **CH▲/CH▼** key to select "WAYPOINT SETUP".
3. Press the **[SELECT]** soft key, then select "WAYPOINT DIR." with the **CH▲/CH▼** key.
4. Press the **[SELECT]** soft key, then select "EDIT" with the **CH▲/CH▼** key.
5. Press the **[SELECT]** soft key, then press the **CH▲/CH▼** key to select the waypoint to be edited.
6. Press the **[SELECT]** soft key to show the waypoint input display.
7. Press the **[SELECT]** soft key repeatedly until the number or letter is selected that is to be changed.
8. Press the **CH▲/CH▼** key to change the letter or number.
9. Repeat steps 7 and 8 until the waypoint is updated.
10. With "SAVE" highlighted, press the **[ENTER]** soft key to store the edited waypoint into memory.
11. Press the **CLR** key to return to radio operation.