

11 NAVIGATION

The **GX6000** is capable of storing up to 250 waypoints for navigation using the compass page.

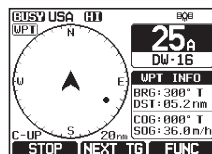
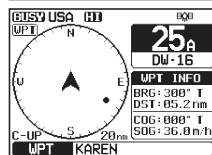
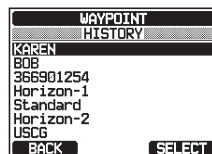
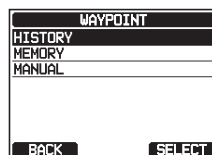
You can also navigate to DSC distress calls with position or a position received from another DSC radio using DSC polling.

11.1 WAYPOINT OPERATION

11.1.1 Starting and Stopping Navigation

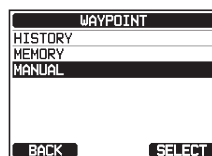
Navigation by Using the Waypoint Directory

1.  **“NAVI”**  **“WAYPOINT”**
2. Rotate the **DIAL/ENT** knob to select the desired category (**“HISTORY”** or **“MEMORY”**), then press the **[SELECT]** soft key.
3. Rotate the **DIAL/ENT** knob to select a waypoint, then press the **[SELECT]** soft key. The navigation screen will appear.
The screen includes the distance and direction to the destination, and the waypoint is indicated by a dot (●) inside the compass.
4. Press one of the soft keys to show the key selections.
Press the **[STOP]** soft key to stop the navigation.



Navigation by Manually Entering a Waypoint

1.  **“NAVI”**  **“WAYPOINT”**
2. Rotate the **DIAL/ENT** knob to select **“MANUAL”**, then press the **[SELECT]** soft key.
3. If you want to give the waypoint an easy-to-find name, rotate the **DIAL/ENT** knob to select **“NAME:”**, press the **[SELECT]** soft key, then enter the name. For details, refer to **“10.4.1 Setting up the Individual / Position Call Directory”**.



- Rotate the **DIAL/ENT** knob to select “**POSITION:**”, then press the **[SELECT]** soft key.

WAYPOINT	
NAME:	001WPT
POSITION:	---°---'---
GOTO	
SAVE & GOTO	
BACK	SELECT

- Rotate the **DIAL/ENT** knob to select the first number of latitude, then press the **[SELECT]** soft key to step to the next number.
- Repeat step 5 to set the position.
If a mistake was made, rotate the **DIAL/ENT** knob to select “←” or “→”, press the **[SELECT]** soft key until the wrong character is selected, then perform step 5.
- When finished programming the position, press the **[FINISH]** soft key. The display will return to the previous screen.

WAYPOINT	
POSITION	
Lat	---°---'---
Lon	---°---'---
1234567890 SN	
← → Delete	
BACK	FINISH SELECT

- Rotate the **DIAL/ENT** knob to select “**SAVE & GOTO**”, then press the **[SELECT]** soft key. To set the Waypoint as a temporary destination without saving and start the navigation, select “**GOTO**” and press the **[SELECT]** soft key.

WAYPOINT	
NAME:	001WPT
POSITION:	24°25.9755 S 118°59.4566 W
GOTO	
SAVE & GOTO	
BACK	SELECT

The navigation screen will appear.

The screen includes the distance and direction to the destination, and the waypoint is indicated by a dot (●) inside the compass.

BUSY USA (H)	
WPT	
25A	
DW-16	
WPT INFO	
BRG: 300° T	
DST: 05.2 nm	
COG: 000° T	
SOG: 36.0 m/h	
WPT 001WPT	

- Press one of the soft keys to show the key selections. Press the **[STOP]** soft key to stop the navigation.

BUSY USA (H)	
WPT	
25A	
DW-16	
WPT INFO	
BRG: 300° T	
DST: 05.2 nm	
COG: 000° T	
SOG: 36.0 m/h	
STOP NEXT TG FUNC	

11.1.2 Setting Up Waypoint Directory

Marking a Position

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

- [MENU]** → “**SETUP**” → “**WAYPOINT SETUP**” → “**MARK POSITION**”

- Rotate the **DIAL/ENT** knob to select “**NAME:**”, then press the **[SELECT]** soft key.
- Enter the waypoint name by rotating the **DIAL/ENT** knob and the **[SELECT]** soft key.

When finished entering the name (using fifteen characters or less), press the **[FINISH]** soft key.

MARK POSITION	
NAME:	001MARK
POSITION:	---°---'---
SAVE	
BACK	SELECT

- If you want to modify the position, rotate the **DIAL/ENT** knob to select **"POSITION:"**, press the **[SELECT]** soft key, then enter the new coordinates. When finished modifying the position, press the **[FINISH]** soft key.
- Rotate the **DIAL/ENT** knob to select **"SAVE"**, then press the **[SELECT]** soft key to save the mark position into memory.
- Press the **CLEAR** key to return to radio operation.

MARK POSITION	
NAME:	001MARK
POSITION:	24°25.9757 N 118°59.4564 E
SAVE	
BACK	SELECT

Adding a Waypoint

- [MENU]** → **"SETUP"** → **"WAYPOINT SETUP"** → **"WAYPOINT DIRECTORY"**

- Rotate the **DIAL/ENT** knob to select **"ADD"**, then press the **[SELECT]** soft key.

WAYPOINT SETUP	
WAYPOINT DIRECTORY	
ADD	
EDIT	
DELETE	
BACK	SELECT

- Rotate the **DIAL/ENT** knob to select **"NAME:"**, then press the **[SELECT]** soft key.
- Enter the waypoint name by rotating the **DIAL/ENT** knob and the **[SELECT]** soft key. When finished entering the name (using fifteen characters or less), press the **[FINISH]** soft key.
- Rotate the **DIAL/ENT** knob to select **"POSITION:"**, press the **[SELECT]** soft key, then enter the coordinates. When finished entering the position, press the **[FINISH]** soft key.
- Rotate the **DIAL/ENT** knob to select **"SAVE"**, then press the **[SELECT]** soft key to save the waypoint into memory.
- Press the **CLEAR** key to return to radio operation.

WAYPOINT DIRECTORY	
NAME:	001WPT
POSITION:	
SAVE	
BACK	SELECT

WAYPOINT DIRECTORY	
NAME:	STANDARD
POSITION:	34°25.9755 S 118°59.4566 E
SAVE	
BACK	SELECT

Editing a Waypoint

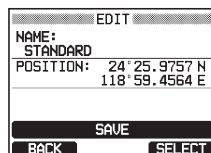
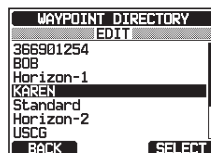
This function allows a previously entered waypoint to be edited.

- [MENU]** → **"SETUP"** → **"WAYPOINT SETUP"** → **"WAYPOINT DIRECTORY"**

- Rotate the **DIAL/ENT** knob to select **"EDIT"**, then press the **[SELECT]** soft key.

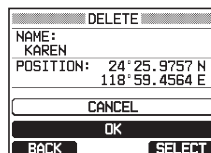
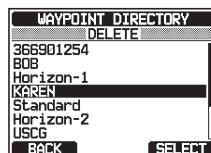
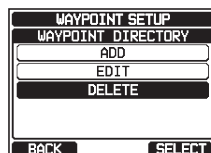
WAYPOINT SETUP	
WAYPOINT DIRECTORY	
ADD	
EDIT	
DELETE	
BACK	SELECT

3. Rotate the **DIAL/ENT** knob to select the waypoint to be edited, then press the **[SELECT]** soft key to show the waypoint input display.
4. Rotate the **DIAL/ENT** knob to select “**NAME:**” or “**POSITION:**”, then press the **[SELECT]** soft key.
5. Rotate the **DIAL/ENT** knob to select “←” or “→”, press the **[SELECT]** soft key until the character to be changed is selected, then enter a new character.
6. Repeat step 5 until the waypoint is updated.
When finished editing, press the **[FINISH]** soft key.
7. Rotate the **DIAL/ENT** knob to select “**SAVE**”, then press the **[SELECT]** soft key to store the edited waypoint into memory.
8. Press the **CLEAR** key to return to radio operation.



Deleting a Waypoint

1. **[MENU]** → “**SETUP**” → “**WAYPOINT SETUP**” → “**WAYPOINT DIRECTORY**”
2. Rotate the **DIAL/ENT** knob to select “**DELETE**”, then press the **[SELECT]** soft key.
3. Rotate the **DIAL/ENT** knob to select the waypoint to be deleted, then press the **[SELECT]** soft key.
4. Confirm the waypoint to be deleted, rotate the **DIAL/ENT** knob to select “**OK**”, then press the **[SELECT]** soft key.
5. Press the **CLEAR** key to return to radio operation.



Saving a DSC Position Call as a Waypoint

When a position is received from another DSC radio the **GX6000** allows the position to be saved as a waypoint.

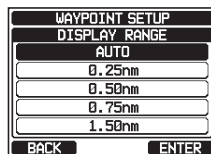
Refer to section “**10.7.4 Saving the Reported Position as a Waypoint**” for details.

11.1.3 Selecting the Display Range

This menu item allows setting of the range on the compass display.

1.  → "SETUP" → "WAYPOINT SETUP" → "DISPLAY RANGE"

2. Rotate the **DIAL/ENT** knob to select desired range. (Unit of measure depends on the settings in the GPS SETUP menu. Refer to section "18.7 UNITS OF MEASURE".)



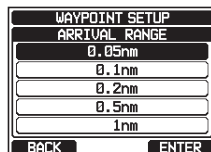
3. Press the **[ENTER]** soft key to store the selected setting.
4. Press the **CLEAR** key to return to radio operation.

11.1.4 Selecting the Arrival Range

This menu item sets the distance to alert you when you are within the specified arrival range of the waypoint.

1.  → "SETUP" → "WAYPOINT SETUP" → "ARRIVAL RANGE"

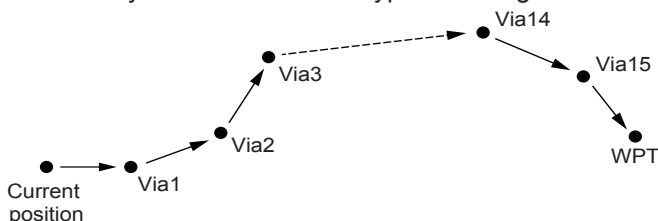
2. Rotate the **DIAL/ENT** knob to select desired range. (Unit of measure depends on the settings in the GPS SETUP menu. Refer to section "18.7 UNITS OF MEASURE".)



3. Press the **[ENTER]** soft key to store the selected setting.
4. Press the **CLEAR** key to return to radio operation.

11.2 ROUTING OPERATION

The **GX6000** allows you to set 1 to 15 waypoints along the route.



Routing to a Waypoint

11.2.1 Setting Up Routing Directory

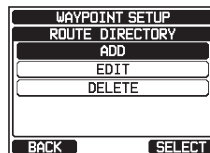
NOTE

All the destinations and via-points must be programmed as waypoints in the **GX6000** memory. Refer to section "11.1.2 Setting Up Waypoint Directory".

Adding a Route

1.  → "SETUP" → "WAYPOINT SETUP" → "ROUTE DIRECTORY"

2. Rotate the **DIAL/ENT** knob to select "**ADD**", then press the **[SELECT]** soft key.

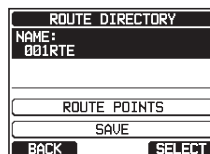


3. Rotate the **DIAL/ENT** knob to select "**NAME:**", then press the **[SELECT]** soft key.

4. Enter the route name by rotating the **DIAL/ENT** knob and the **[SELECT]** soft key.

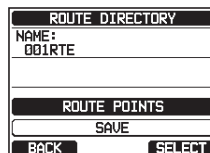
When finished entering the name (using fifteen characters or less), press the **[FINISH]** soft key.

5. Rotate the **DIAL/ENT** knob to select "**ROUTE POINTS**", press the **[SELECT]** soft key.



6. Rotate the **DIAL/ENT** knob to select "**WPT:**", then press the **[SELECT]** soft key.

7. Rotate the **DIAL/ENT** knob to select a waypoint, then press the **[SELECT]** soft key.



8. Rotate the **DIAL/ENT** knob to select "**Via1**", then press the **[SELECT]** soft key.

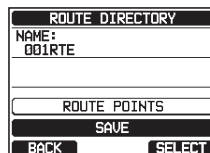
9. Rotate the **DIAL/ENT** knob to select a waypoint, then press the **[SELECT]** soft key.

10. Repeat steps 8 and 9 to add more via-points.

11. Press the **[BACK]** soft key.

12. Rotate the **DIAL/ENT** knob to select "**SAVE**", then press the **[SELECT]** soft key to store the route into memory.

13. Press the **CLEAR** key to return to radio operation.

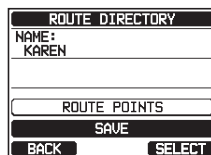
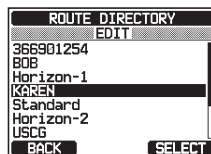
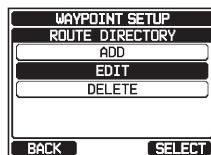


Editing a Route

This function allows a previously entered route to be edited.

1.  → "SETUP" → "WAYPOINT SETUP" → "ROUTE DIRECTORY"

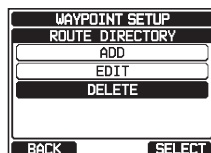
2. Rotate the **DIAL/ENT** knob to select “**EDIT**”, then press the **[SELECT]** soft key.
3. Rotate the **DIAL/ENT** knob to select the route to be edited, then press the **[SELECT]** soft key to show the route input display.
4. Perform steps 3 to 11 of the previous page until the route is updated.
5. Rotate the **DIAL/ENT** knob to select “**SAVE**”, then press the **[SELECT]** soft key to store the edited route into memory.
6. Press the **CLEAR** key to return to radio operation.



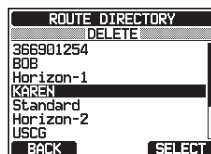
Deleting a Route

1. **[MENU]** ➡ “**SETUP**” ➡ “**WAYPOINT SETUP**” ➡ “**ROUTE DIRECTORY**”

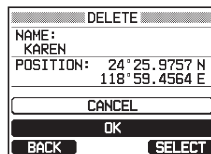
2. Rotate the **DIAL/ENT** knob to select “**DELETE**”, then press the **[SELECT]** soft key.



3. Rotate the **DIAL/ENT** knob to select the route to be deleted, then press the **[SELECT]** soft key.



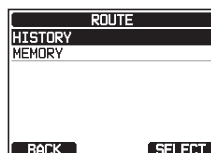
4. Confirm the route to be deleted, rotate the **DIAL/ENT** knob to select “**OK**”, then press the **[SELECT]** soft key.
5. Press the **CLEAR** key to return to radio operation.



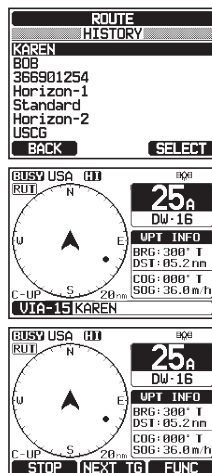
11.2.2 Starting and Stopping Route Navigation

1. **[MENU]** ➡ “**NAVI**” ➡ “**ROUTE**”

2. Rotate the **DIAL/ENT** knob to select the desired category (“**HISTORY**” or “**MEMORY**”), then press the **[SELECT]** soft key.

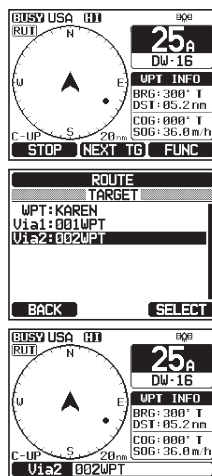


3. Rotate the **DIAL/ENT** knob to select a route, then press the **[SELECT]** soft key. The navigation screen with “RUT” indicator appears.
4. A message “ARRIVED” will appear when you have reached to the first target point.
To start navigation to the next target, press the **[YES]** soft key.
5. Press one of the soft keys to show the key selections. Press the **[STOP]** soft key to stop the navigation.



11.2.3 Changing the Destination

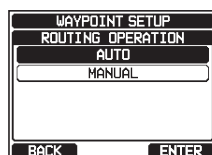
1. On the navigation screen, press one of the soft keys to show the key selections.
2. Press the **[NEXT TG]** soft key.
3. Rotate the **DIAL/ENT** knob to select desired destination, then press the **[SELECT]** soft key.
4. The navigation screen with a new destination appears.



11.2.4 Selecting Automatic or Manual Routing

This selection allows you to start navigation to the next target automatically or manually when your vessel has arrived at a waypoint.

1. **[MENU]** → “SETUP” → “WAYPOINT SETUP” → “ROUTING OPERATION”
2. Rotate the **DIAL/ENT** knob to select “**AUTO**” or “**MANUAL**”, then press the **[ENTER]** soft key.
3. Press the **CLEAR** key to return to radio operation.



12 GM OPERATION

The GM (Group Monitor) feature of the **GX6000** utilizes the same system as the DSC Group call and Auto Position Polling, to display the group members' locations.

12.1 SETTING UP GM OPERATION

The **GX6000** is capable of storing up to 10 groups with 1 to 9 members each.

12.1.1 Setting Up GM Group Directory

NOTE

- For this function to operate, the same group MMSI must be programmed into each transceiver of group members to be monitored. Refer to section “**10.5.1 Setting up a Group Call**” for details.
- Group members for GM operation can only be selected from the Individual/Position Call directory, there for all members that you want to monitor have to be stored in the directory. Refer to section “**10.4.1 Setting up the Individual / Position Call Directory**” for details.

1. **[MENU]** ➡ “**SETUP**” ➡ “**GM SETUP**” ➡ “**GM GROUP DIRECTORY**”

2. Rotate the **DIAL/ENT** knob to select “**ADD**”, then press the **[SELECT]** soft key.

GM SETUP	
GM GROUP DIRECTORY	
ADD	
EDIT	
DELETE	
BACK	SELECT

3. Rotate the **DIAL/ENT** knob to select “**NAME:**”, then press the **[SELECT]** soft key.

4. Enter the route name by rotating the **DIAL/ENT** knob and the **[SELECT]** soft key.

GM GROUP DIRECTORY	
NAME:	

GM ID:	
0-----	
MEMBERS	
SAVE	
BACK	SELECT

When finished entering the name (using eleven characters or less), press the **[FINISH]** soft key.

5. Rotate the **DIAL/ENT** knob to select “**GM ID:**”, press the **[SELECT]** soft key, then enter the group MMSI number.

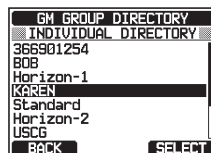
When finished entering the MMSI, press the **[FINISH]** soft key.

GM GROUP DIRECTORY	
NAME:	
Standard	
GM ID:	
0-----	
MEMBERS	
SAVE	
BACK	SELECT

6. Rotate the **DIAL/ENT** knob to select “**MEMBER**”, then press the **[SELECT]** soft key.

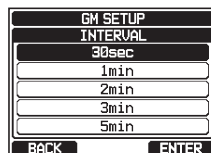
GM GROUP DIRECTORY	
NAME:	
Standard	
GM ID:	
087654323	
MEMBERS	
SAVE	
BACK	SELECT

7. Rotate the **DIAL/ENT** knob to select a list number, then press the **[SELECT]** soft key.
8. Rotate the **DIAL/ENT** knob to select a member from the Individual directory, then press the **[SELECT]** soft key.
9. Repeat steps 8 to add members to the group, then press the **[BACK]** soft key.
10. Press the **[BACK]** soft key to return to the “NAME:” and “GM ID:” screen.
11. Rotate the **DIAL/ENT** knob to select “SAVE” to store the data, then press the **[ENTER]** soft key.
12. To enter another group directory, repeat steps 2 through 11.
13. Press the **CLEAR** key to return to radio operation.



12.1.2 Setting Up the Polling Time Interval

1. **[MENU]** → “SETUP” → “GM SETUP” → “INTERVAL”
2. Rotate the **DIAL/ENT** knob to select the desired interval time, then press the **[ENTER]** soft key.
3. Press the **CLEAR** key to return to radio operation.



12.1.3 Enabling/Disabling Transmission during GM Operation

1. **[MENU]** → “SETUP” → “GM SETUP” → “GM TX”
2. Rotate the **DIAL/ENT** knob to select the desired transmission type, then press the **[ENTER]** soft key.
 - OFF: Disables the transmission during GM operation.
 - ON GM: Enables the transmission during the GM target display.
 - ON ALL: Enables the transmission during the GM operation.
3. Press the **CLEAR** key to return to radio operation.

