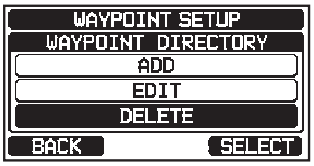
Deleting a Waypoint

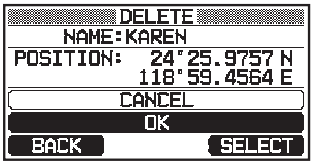
1. Press & hold [MENU/SET] ➠ "**WAYPOINT SETUP**" ➠ "**WAYPOINT DIRECTORY**"

2. Press the [▲] or [▼] key to select "**DELETE**", then press the [**SELECT**] soft key.



3. Press the [▲] or [▼] key to select the waypoint to be deleted, then press the [**SELECT**] soft key.

4. Confirm the waypoint to be deleted, press the [▲] or [▼] key 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

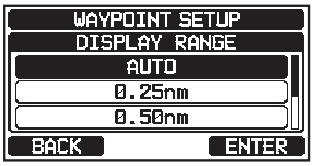
When a position is received from another DSC radio the **GX1850/GX1800** series allows the position to be saved as a waypoint.
Refer to section "**11.7.4 Saving the Reported Position as a Waypoint**" for details.

12.1.3 Selecting the Display Range

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

1. Press & hold [MENU/SET] ➠ "**WAYPOINT SETUP**" ➠ "**DISPLAY RANGE**"

2. Press the [▲] or [▼] key 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.

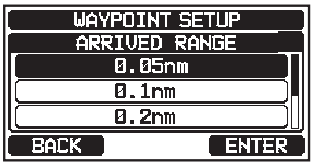


12.1.4 Selecting the Arrival Range

This menu setting determines the arrival range distance. An alert will sound when your vessel navigates to within the arrival range of the designated waypoint.

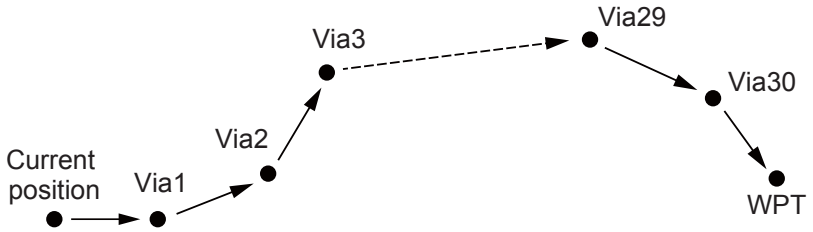
1. Press & hold [MENU/SET] ➠ "**WAYPOINT SETUP**" ➠ "**ARRIVAL RANGE**"

2. Press the [▲] or [▼] key 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.



12.2 ROUTING OPERATION

The **GX1850/GX1800** series permits setting 1 to 30 waypoints along the route to a destination.



Routing to a Waypoint

12.2.1 Setting Up Routing Directory

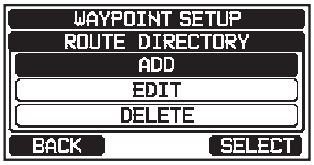
NOTE

All the destinations and via-points must be programmed as waypoints in the memory. Refer to section "12.1.2 Setting Up Waypoint Directory".

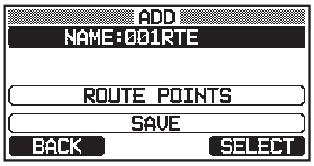
Adding a Route

1. Press & hold [MENU/SET] ➠ "**WAYPOINT SETUP**" ➠ "**ROUTE DIRECTORY**"

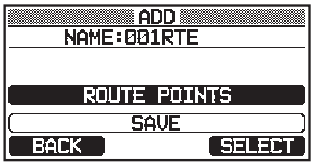
2. Press the [▲] or [▼] key to select "**ADD**", then press the [**SELECT**] soft key.



3. Press the [▲] or [▼] key to select "**NAME:**", then press the [**SELECT**] soft key.
4. Enter the route name by pressing the [▲] or [▼] key and the [**SELECT**] soft key.
   When finished entering the name (using fifteen characters or less), press the [**FINISH**] soft key.



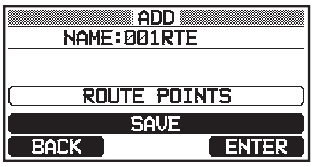
5. Press the [▲] or [▼] key to select "**ROUTE POINTS**", press the [**SELECT**] soft key.



6. Press the [▲] or [▼] key to select "**WPT:**", then press the [**SELECT**] soft key.
7. Press the [▲] or [▼] key to select a waypoint, then press the [**SELECT**] soft key.

8. Press the [▲] or [▼] key to select "**Via 1:**", then press the [**SELECT**] soft key.

9. Press the [▲] or [▼] key 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. Press the [▲] or [▼] key to select "**SAVE**", then press the [**ENTER**] soft key to store the route into memory.
13. Press the [**CLEAR**] key to return to radio operation.

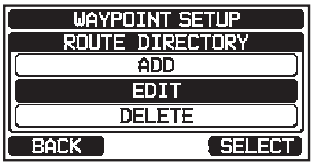


Editing a Route

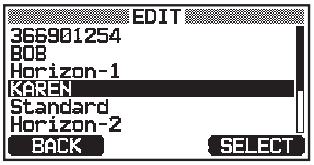
This function allows a previously entered route to be edited.

1. Press & hold [MENU /SET] ➠ "**WAYPOINT SETUP**" ➠ "**ROUTE DIRECTORY**"

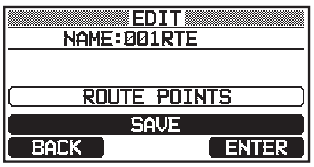
2. Press the [▲] or [▼] key to select "**EDIT**", then press the [**SELECT**] soft key.



3. Press the [▲] or [▼] key 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.



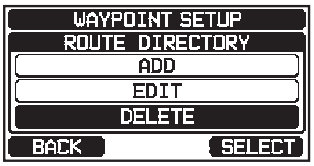
5. Press the [▲] or [▼] key to select "**SAVE**", then press the [**SELECT**] soft key to store the edited route into memory.
6. Press the [**CLEAR**] key to return to radio operation.



Deleting a Route

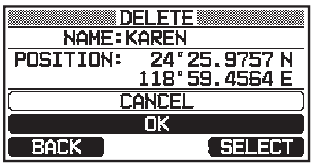
1. Press & hold [MENU /SET] ➠ "**WAYPOINT SETUP**" ➠ "**ROUTE DIRECTORY**"

2. Press the [▲] or [▼] key to select "**DELETE**", then press the [**SELECT**] soft key.



3. Press the [▲] or [▼] key to select the route to be deleted, then press the [**SELECT**] soft key.

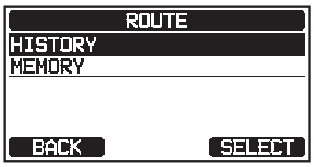
4. Confirm the route to be deleted, press the [▲] or [▼] key to select "**OK**", then press the [**SELECT**] soft key.
5. Press the [**CLEAR**] key to return to radio operation.



12.2.2 Starting and Stopping Route Navigation

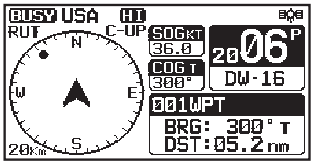
1. [MENU/SET] ➠ "**NAVI**" ➠ "**ROUTE**"

2. Press the [▲] or [▼] key to select the desired category ("**HISTORY**" or "**MEMORY**"), then press the [**SELECT**] soft key.

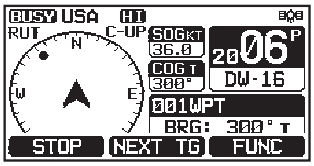


3. Press the [▲] or [▼] key to select a route, then press the [**SELECT**] soft key. The navigation screen with "RUT" indicator appears.

4. A message "**ARRIVED**" will appear when the first target point is reached.
   To start navigation to the next target, press the [**YES**] soft key.

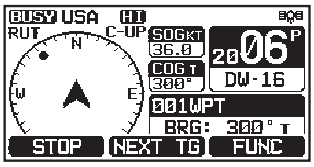


5. Press one of the soft keys, then press the [**STOP**] soft key to exit the navigation screen.

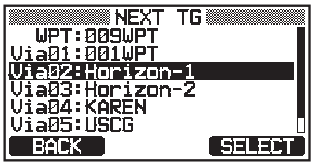


12.2.3 Changing the Destination

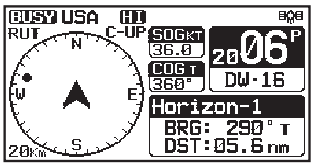
1. On the navigation screen, press one of the soft keys, then press the [**NEXT TG**] soft key.



2. Press the [▲] or [▼] key to select the desired destination, then press the [**SELECT**] soft key.



3. The navigation screen with the new destination appears.

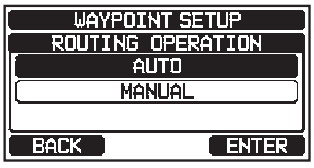


12.2.4 Selecting Automatic or Manual Routing

When your vessel arrives at a via waypoint, this setting determines whether or not navigation to the next waypoint will continue automatically or must be initiated manually.

1. Press & hold [MENU/SET] ➠ "**WAYPOINT SETUP**" ➠ "**ROUTING OPERATION**"

2. Press the [▲] or [▼] key to select "**AUTO**" or "**MANUAL**", then press the [**ENTER**] soft key.
3. Press the [**CLEAR**] key to return to radio operation.



13 GM OPERATION

The GM (Group Monitor) feature of the **GX1850/GX1800** series utilizes the same system as the DSC Group call and Auto Position Polling, to display the group members' locations.

13.1 SETTING UP GM OPERATION

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

13.1.1 Setting Up GM Group Directory

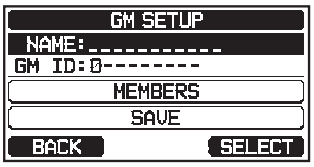
NOTE

- For this function to operate, the same group MMSI must be programmed into the transceivers of all the group members to be monitored. Refer to section "**11.5.1 Setting up a Group Call**" for details.
- Group members for GM operation can only be selected from the Individual/Position Call directory, therefore for all members that you want to monitor, must be stored in the directory. Refer to section "**11.4.1 Setting up the Individual / Position Call Directory**" for details.

1. Press & hold [MENU /SET] ➠ "**GM SETUP**" ➠ "**GM GROUP DIRECTORY**"

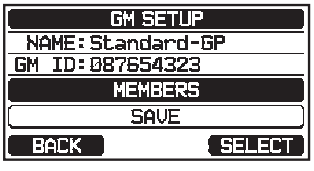
2. Press the [▲] or [▼] key to select "**ADD**", then press the [**SELECT**] soft key.

3. Press the [▲] or [▼] key to select "**NAME:**", then press the [**SELECT**] soft key.
4. Enter the route name by pressing the [▲] or [▼] key and the [**SELECT**] soft key.
   When finished entering the name (using eleven characters or less), press the [**FINISH**] soft key.

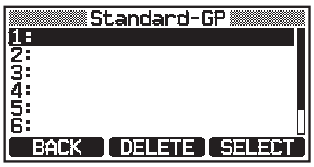


5. Press the [▲] or [▼] key to select "**GM ID:**", press the [**SELECT**] soft key, then enter the group MMSI number.
   When finished entering the MMSI, press the [**FINISH**] soft key.

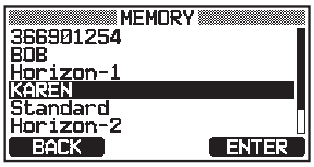
6. Press the [▲] or [▼] key to select "**MEMBER**", then press the [**SELECT**] soft key.



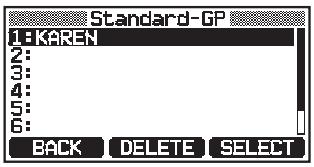
7. Press the [▲] or [▼] key to select a directory list number, then press the [**SELECT**] soft key.



8. Press the [▲] or [▼] key 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.

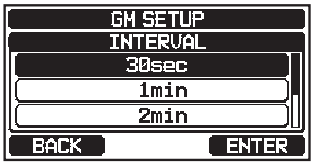


11. Press the [▲] or [▼] key to select "**SAVE**" to store the data, then press the [**ENTER**] soft key.
12. To enter another group directory, repeat steps 2 through 11.
13. Press the [**CLEAR**] key to return to radio operation.

13.1.2 Setting Up the Polling Time Interval

1. Press & hold [MENU /SET] ➠ "**GM SETUP**" ➠ "**INTERVAL**"

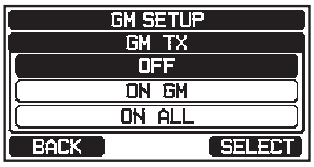
2. Press the [▲] or [▼] key to select the desired polling interval time, then press the [**ENTER**] soft key.
3. Press the [**CLEAR**] key to return to radio operation.



13.1.3 Enabling/Disabling Transmission during GM Operation

1. Press & hold [MENU /SET] ➠ "**GM SETUP**" ➠ "**GM TX**"

2 Press the [▲] or [▼] key 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.

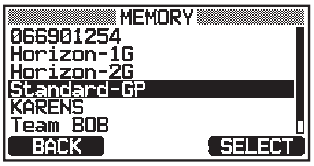
13.2 STARTING GM OPERATION

NOTE

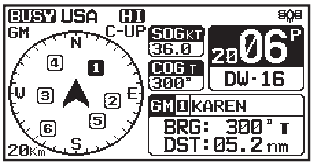
To start GM operation, configure the GM Group Directory setting in setup menu. Otherwise, you cannot start the GM operation. Refer to section "**13.1.1 Setting Up GM Group Directory**" for details.

1. [MENU /SET] ➠ "**GM**"

2. Press the [▲] or [▼] key to select a group you want to monitor, then press the [**SELECT**] soft key.



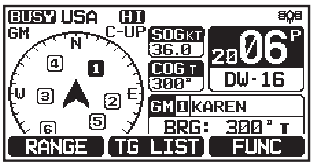
   The GM operation begins, and the GM target display appears.



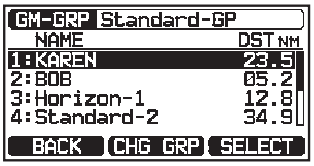
3. Press the [**CLEAR**] key to return to radio operation.

13.2.1 Changing the GM Group Being Monitored

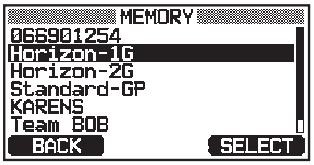
1. On the GM target display, press one of the soft keys, then press the [**TG LIST**] soft key.



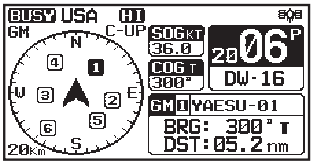
2. Press the [**CHG GRP**] soft key.



3. Press the [▲] or [▼] key to select the name of the group you want to monitor, then press the [**SELECT**] soft key.



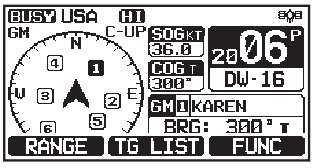
   The GM group being monitored changes. The GM target display appears.



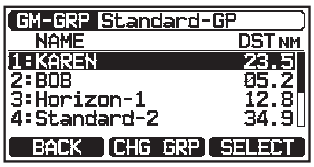
4. Press the [**CLEAR**] key to return to radio operation.

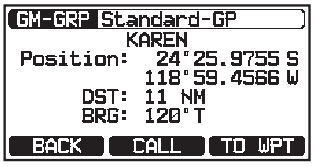
13.2.2 Transmitting a DSC Call to a Group Member

1. On the GM target display, press one of the soft keys, then press the [**TG LIST**] soft key.



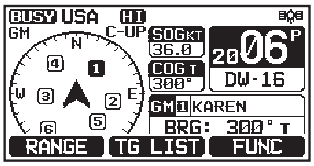
2. Press the [▲] or [▼] key to select a member you want to call.
3. Press the [**SELECT**] soft key to display the location, distance, and bearing of the selected member.
4. Press the [**CALL**] soft key to transmit a DSC Individual call to the selected member.



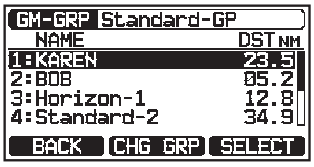


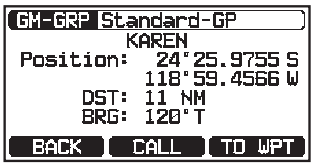
13.2.3 Starting Navigation to a Group Member

1. On the GM target display, press one of the soft keys to show the key selections.
2. Press the [**TG LIST**] soft key.



3. Press the [▲] or [▼] key to select a member you want to approach.
4. Press the [**SELECT**] soft key to display the location, distance, and bearing of the selected member.
5. Press the [**TO WPT**] soft key to start navigation to the selected member. (Press the [**BACK**] soft key twice to cancel and return to the GM target display.)





14 NMEA 2000 SETUP (GX1850 series only)

Set the device numbers and system numbers of devices connected to the NMEA 2000 network.

14.1 SELECT DEVICE

Select the device for which you want to set the device number and system number.

1. Press & hold [MENU/SET] ➠ "**NMEA2000 SETUP**" ➠ "**SELECT DEVICE**"

2. In the SELECT DEVICE list, press the [▲] or [▼] key to select the external device for which the device number and the system number are to be set.

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

NOTE

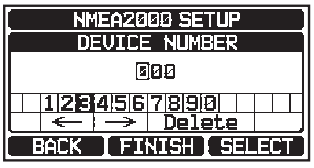
If any devices connected to the network are not displayed in the list, press the [**SEARCH**] soft key to update the list.

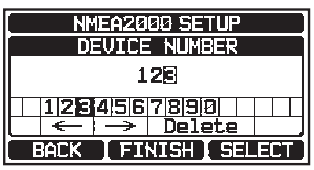
14.2 DEVICE NUMBER

If connecting two or more the **GX1850** series, change the device number of either one. Set the device number of the device selected in "**14.1 SELECT DEVICE**".

1. Press & hold [MENU/SET] ➠ "**NMEA2000 SETUP**" ➠ "**DEVICE NUMBER**"

2. Press the [▲] or [▼] key to select the first digit of the device number, then press the [**SELECT**] soft key to step to the next number.
3. Repeat step 2 to set the device number within the range of 000 to 251. ("000" is default).
4. If a mistake is made entering in the device number, press the [▲]/[▼]/[◄]/[►] keys to select "←" or "→", press the [**SELECT**] soft key until the incorrect character is selected, and perform step 2.
5. When finished programming the device number, press the [**FINISH**] soft key.





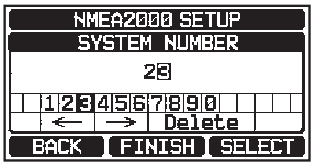
6. Press the [**CLEAR**] key to return to radio operation.

14.3 SYSTEM NUMBER

Set the system number of the device selected in "**14.1 SELECT DEVICE**".

1. Press & hold [MENU /SET] ➠ "**NMEA2000 SETUP**" ➠ "**SYSTEM NUMBER**"

2. Press the [◄] or [►] key to select the first digit of the system number, then press the [**SELECT**] soft key to step to the next number.
3. Repeat step 2 to set the system number within the range of 00 to 15. ("00" is default).
4. If a mistake is made entering in the system number, press the [▲]/[▼]/[◄]/[►] keys to select "←" or "→", press the [**SELECT**] soft key until the incorrect character is selected, then perform step 2.
5. When finished programming the system number, press the [**FINISH**] soft key.
6. Press the [**CLEAR**] key to return to radio operation.



14.4 SUMMARY OF THE NMEA 2000 SETUP

Item	Description	Default Value	Page
SELECT DEVICE	Select the device for which you want to set the device number or the system number	–	79
DEVICE NUMBER	Set the device number	000	79
SYSTEM NUMBER	Set the system number	00	80

14.5 COMPATIBLE NMEA 2000 PGN LIST

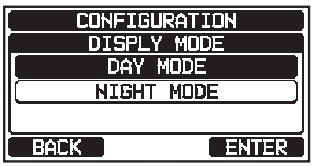
Receive		Transmit	
059392	ISO Acknowledgement	059392	ISO Acknowledgement
059904	ISO Request	059904	ISO Request
060928	ISO Address Claim	060928	ISO Address Claim
065240	ISO Commanded Address	–	–
126464	Receive/Transmit PGN's group function	126464	Receive/Transmit PGN's group function
126993	Heartbeat	126993	Heartbeat
126996	Product Information	126996	Product Information
127237	Heading/Track Control	–	–
127250	Vessel Heading	–	–
127258	Magnetic Variation	–	–
128259	Speed	–	–
129025	Position, Rapid Update	–	–
129026	COG and SOG, Rapid Update	–	–
129029	GNSS Position Data	129029	GNSS Position Data
129033	Local Time Offset	–	–
–	–	129799	Radio Frequency/Mode/Power
–	–	129808	DSC Call Information
129540	GNSS Sats in View	129540	GNSS Sats in View

15 CONFIGURATION SETUP

15.1 DISPLAY MODE

The display mode can be selected according to the time of day you operate the radio.

1. Press & hold [MENU/SET] ➠ "**CONFIGURATION**" ➠ "**DISPLAY MODE**"

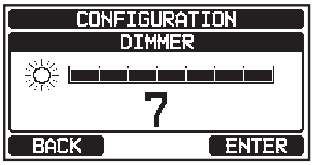


2. Press the [▲] or [▼] key to select the desired setting. Select the "**DAY MODE**" or "**NIGHT MODE**" setting.
   DAY MODE: Normal display mode.
   NIGHT MODE: Low brightness display mode for night use.
3. Press the [**ENTER**] soft key to store the selected setting.
4. Press the [**CLEAR**] key to return to radio operation.

15.2 DIMMER ADJUSTMENT

This menu selection adjusts the backlight intensity.

1. Press & hold [MENU/SET] ➠ "**CONFIGURATION**" ➠ "**DIMMER**"

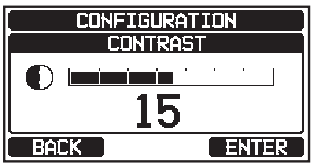


2. Press the [▲] or [▼] key to select the desired level ("7" is default). When "OFF" is selected, the lamp is turned OFF.
3. Press the [**ENTER**] soft key to store the selected level.
4. Press the [**CLEAR**] key to return to radio operation.

15.3 DISPLAY CONTRAST

The display contrast can be adjusted to suit your operation environment.

1. Press & hold [MENU/SET] ➠ "**CONFIGURATION**" ➠ "**CONTRAST**"

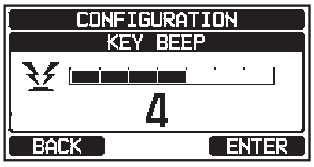


2. Press the [▲] or [▼] key to select the desired level. The contrast level can be set from "**1**" to "**30**" ("**15**" is default).
3. Press the [**ENTER**] soft key to store the selected level.
4. Press the [**CLEAR**] key to return to radio operation.

15.4 KEY BEEP

This selection is used to select the beep tone volume level when a key is pressed.

1. Press & hold [MENU/SET] ➠ "**CONFIGURATION**" ➠ "**KEY BEEP**"



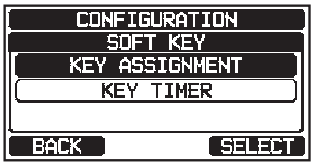
2. Press the [▲] or [▼] key to select the desired level. The beep level can be set from "**1**" to "**7**", or "**OFF**" ("4" is default).
3. Press the [**ENTER**] soft key to store the selected level.
4. Press the [**CLEAR**] key to return to radio operation.

15.5 SOFT KEYS

From this menu, you can assign desired functions to each soft key from numbers 01 to 12. You can also set how long the soft key icon will be displayed after the corresponding soft key is pressed.

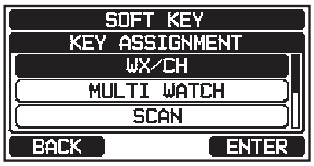
15.5.1 Key Assignment

1. Press & hold [MENU/SET] ➠ "**CONFIGURATION**" ➠ "**SOFT KEY**"



2. Press the [▲] or [▼] key to select "**KEY ASSIGNMENT**", then press the [**SELECT**] soft key.

3. Press the [▲] or [▼] key to select the key number to be programmed, and press the [**SELECT**] soft key.



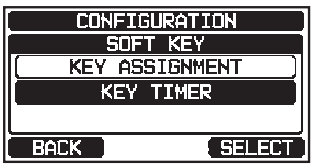
4. Press the [▲] or [▼] key to select a new function to be assigned, and press the [**ENTER**] soft key. Available functions are listed below. By selecting "NONE" the soft key assignment is removed.
5. Repeat steps 3 and 4 to program other soft keys.
   The VHF radio functions can be assigned to a maximum of 12 soft keys.
6. Press the [**CLEAR**] key to return to radio operation.

DISPLAY	SOFT KEY ICON	FUNCTION	SOFT KEY NUMBERS ASSIGNED AS DEFAULT (See the previous page.)
NONE	–	–	–
WX/CH		Switches channels between weather and marine	01 (GX1850GPS, GX1850, GX1800GPS, GX1800)
SCAN		Turns on or off scanning function ON or OFF	05
SCAN MEMORY		Add or remove channels from memory channel scan	04
MULTI WATCH		Starts and stops dual watch or triple watch scan	06
PRESET		Programs or deletes the preset memory channel	10 (GX1850GPS, GX1850, GX1800GPS, GX1800) 01 (GX1850GPS/E, GX1800GPS/E)
INTERCOM		Activates intercom between radio and optional RAM4 mic (SSM-70H)	10
MARK POSITION		Marks the current position for a “Waypoint”	07
NAVIGATION		Enables the “Waypoint” or “Route” navigation display	08
COMPASS		Enables the “Compass” display	09
TX HI/LO		Selects transmit power	02
MAN OVERBOARD		Marks the position where a person falls overboard	03
CH NAME		Edit channel names	10 (GX1850GPS/E, GX1800GPS/E)
DISPLAY MODE		Switches the display between daytime and nighttime mode	12

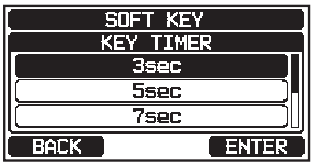
15.5.2 Key Timer

1. Press & hold [MENU/SET] ➠ “**CONFIGURATION**” ➠ “**SOFT KEY**”

2. Press the [▲] or [▼] key to select “**KEY TIMER**”, then press the [**SELECT**] soft key.



3. Press the [▲] or [▼] key to select the desired time, default is 5 seconds.
4. Press the [**ENTER**] soft key to store the selected setting.
5. Press the [**CLEAR**] key to return to radio operation.

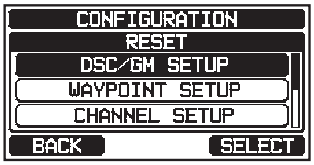


15.6 RESET

The memory and the setup categories may be reset independently, or the transceiver may be reset to the original factory settings.

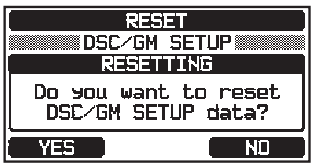
1. Press & hold [MENU/SET] ➠ "**CONFIGURATION**" ➠ "**RESET**"

2. Press the [▲] or [▼] key to select the desired category from: "**DSC/GM SETUP**", "**WAYPOINT SETUP**", "**CHANNEL SETUP**", "**GPS SETUP**", "**CONFIGURATION**", "**FACTORY**" (all settings*1 except the "MMSI" and "ATIS"*2 will be initialized), "**USER MMSI**", or "**ATIS CODE**"*2.



   *1(The Individual Directory is also cleared.)
   *2(GX1850GPS/E and GX1800GPS/E only)

   For details on resetting "**USER MMSI**" and "**ATIS CODE**", refer to "**15.6.1 Reset the USER MMSI and ATIS CODE**".
3. Press the [**SELECT**] soft key.
4. Press the [**YES**] soft key. (To cancel, press the [**NO**] soft key.)



5. Press the [**OK**] soft key.
6. Press the [**CLEAR**] key to return to radio operation.

15.6.1 Reset the USER MMSI and ATIS CODE

If the MMSI number and ATIS* code *(GX1850GPS/E and GX1800GPS/E only) need to be reset. Please contact Standard Horizon to obtain the required reset codes.

To request the Reset Code

Contact Standard Horizon and confirm the following required information.

● The Information Necessary to obtain the Reset Code:
  • Model name
  • Serial number
  • Current MMSI number and/or ATIS code
    (To check the MMSI number and ATIS code, refer to "**8.6.1 Maritime Mobile Service Identity (MMSI)**" or "**19 ATIS SETUP (GX1850GPS/E and GX1800GPS/E only)**".
  • Request codes for the MMSI number and/or the ATIS code
    (See "**Checking the Request code**" below).

● Contact Information

USA/Canada

E-mail: marinetech@yaesu.com
Telephone: (800) 767-2450

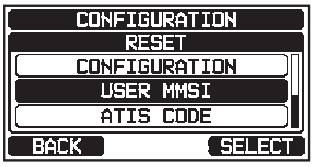
Europe

E-mail: service@yaesu.co.uk
Telephone: +44 (0)1962 866667

Checking the Request code

1. Press & hold [MENU /SET] ➠ "**CONFIGURATION**" ➠ "**RESET**"

2. Press the [▲] or [▼] key to select the desired category. You can select either "**USER MMSI**", or "**ATIS CODE**"*, then press the [**SELECT**] soft key.
*(GX1850GPS/E and GX1800GPS/E only)



3. Press the [**SELECT**] soft key again.
The request code will be displayed.

NOTE

When resetting both "**USER MMSI**" and "**ATIS CODE**", both request codes are required.

Resetting the USER MMSI and ATIS codes

Here is the procedure for resetting the USER MMSI and ATIS codes after obtaining the reset codes.

1. The RESET screen is displayed on step 2 in "**Checking the Request code**".
2. Press the [▲] or [▼] key to select "**PASSWORD**", then press the [**SELECT**] soft key.
The password input screen will appear.

3. Press the [▲]/[▼]/[◄]/[►] keys to select the first digit of the reset password, then press the [**SELECT**] soft key to step to the next number.

4. Repeat steps 3 until the reset password is complete.
   If a mistake is made entering in the station name, press the [▲]/[▼]/[◄]/[►] keys to select "←" or "→", press the [**SELECT**] soft key until the incorrect character is selected, then perform step 3.
5. Press the [**FINISH**] soft key.
   If the reset is successful, "**Completed!**" will appear on the screen.
   If the error message is displayed, input the reset code again.
6. Press the [**OK**] soft key to return to the setup screen.

NOTE

The acquired reset password is available only one time.

15.7 SUMMARY OF THE CONFIGURATION SETUP

Item	Description	Default Value	Page
DISPLAY MODE	Toggles LCD display mode between daytime and nighttime mode	DAY MODE	81
DIMMER	Adjusts the backlight level of the LCD and keypad	7	81
CONTRAST	Adjusts the contrast of the LCD	15	81
KEY BEEP	Adjusts the volume of beep tone when a key is pressed	4	82
SOFT KEY	Sets the assignment and display time of the soft keys	10 sec	82
SOFT KEY			
KEY ASSIGNMENT	Sets the assignment of the soft keys	–	82
KEY TIMER	Sets the display time of the soft keys	5 sec	83
RESET	Initializes the memories and settings	–	84

16 CHANNEL FUNCTION SETUP

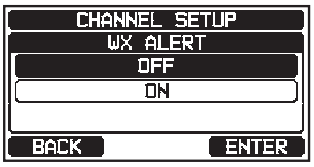
16.1 CHANNEL GROUP

This menu item allows you to selection of a channel group from USA, Canada*, and International. Refer to section "**9.7 CHANNEL GROUP**" for details.

16.2 WEATHER ALERT (USA version only)

Enables/disables the NOAA Weather Alert function. The default setting is "OFF".

1. Press & hold [MENU /SET] ➠ "**CHANNEL SETUP**" ➠ "**WX ALERT**"



2. Press the [▲] or [▼] key to select "**ON**" or "**OFF**".
3. Press the [**ENTER**] soft key to store the selected setting.
4. Press the [**CLEAR**] key to return to radio operation.

16.3 SCAN MEMORY

To be able to scan channels the scan memory must be programmed. This section designates channels to be stored into scan memory.
Refer to section "**9.10.2 Programming Scan Memory**" for details.

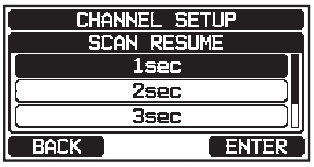
16.4 SCAN TYPE

This selection is used to select the scan mode between "**MEMORY**" and "**PRIORITY**". The default setting is "PRIORITY".
Refer to section "**9.10.1 Selecting Scan Type**" for details.

16.5 SCAN RESUME

This selection is used to set the time after a transmission ends before the radio starts to scan channels again. The default setting is 3 seconds.

1. Press & hold [MENU /SET] ➠ "**CHANNEL SETUP**" ➠ "**SCAN RESUME**"



2. Press the [▲] or [▼] key to select the desired resume time, default is 3 seconds. The resume time can be set to "**1sec**" through "**5sec**".
3. Press the [**ENTER**] soft key to store the new setting.
4. Press the [**CLEAR**] key to return to radio operation.

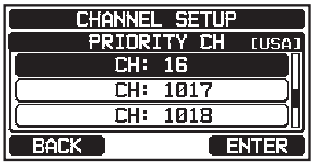
16.6 MULTI WATCH

This selection is used to select the watch type between "**DUAL**" and "**TRIPLE**". The default setting is "DUAL".
Refer to section "**9.9 MULTI WATCH (TO PRIORITY CHANNEL)**" for details.

16.7 PRIORITY CHANNEL

This procedure permits setting a different priority channel to be used when priority scanning. By default, the priority channel is set to Channel 16.

1. Press & hold [MENU/SET] ➠ "**CHANNEL SETUP**" ➠ "**PRIORITY CHANNEL**"

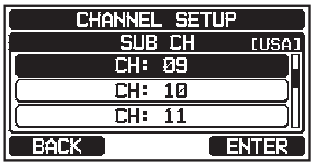


2. Press the [▲] or [▼] key to select the desired channel to be a priority.
3. Press the [**ENTER**] soft key to store the new setting.
4. Press the [**CLEAR**] key to return to radio operation.

16.8 SUB CHANNEL

By default, the sub channel is set to Channel 9. This procedure permits assigning a different sub channel for instant access.

1. Press & hold [MENU/SET] ➠ "**CHANNEL SETUP**" ➠ "**SUB CHANNEL**"



2. Press the [▲] or [▼] key to select the desired channel to be a sub channel.
3. Press the [**ENTER**] soft key to store the new setting.
4. Press the [**CLEAR**] key to return to radio operation.

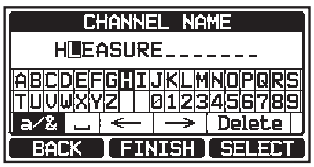
16.9 CHANNEL NAME

When the radio ("Normal") mode is selected, the display will show a name under the channel number. This name describes the use of the channel. The name may be customized the with the below procedure.

Example: CH69 PLEASURE to HOOKUP

1. Press & hold [MENU/SET] ➠ "**CHANNEL SETUP**" ➠ "**CHANNEL NAME**"

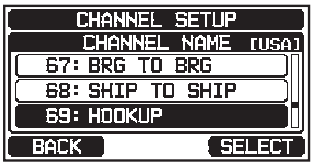
2. Press the [▲] or [▼] key to select the channel to be named, then press the [**SELECT**] soft key.
3. Press the [▲]/[▼]/[◄]/[►] keys to select the first letter of the new channel name.
4. Press the [**SELECT**] soft key to store the first letter of the name and step to the next letter to the right.



5. Repeat step 3 and 4 until the name is complete. The name can consist of up to 16 characters, if you do not use all 16 characters, select "→" to move to the next space. This method can also be used to enter a blank space in the name.

If a mistake is made entering the channel name, press the [▲]/[▼]/[◄]/[►] keys to select "←" or "→", press the [**SELECT**] soft key until the incorrect character is selected, then perform steps 3 and 4.

6. When finished entering the channel name (using fifteen characters or less), press the [**FINISH**] soft key to save the name.
7. To enter the name of another channel, repeat the steps 2 through 6.
8. Press the [**CLEAR**] key to return to radio operation.



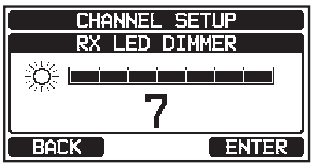
NOTE

When "CHANNEL NAME" is assigned to a soft key, the channel name may be displayed directly by pressing the [**NAME**] soft key during radio operation.

16.10 RX LED DIMMER ADJUSTMENT

This menu selection adjusts the RX LED intensity.

1. Press & hold [MENU/SET] ➠ "**CHANNEL SETUP**" ➠ "**RX LED DIMMER**"



2. Press the [▲] or [▼] key to select the desired level ("7" is default). When "OFF" is selected, the lamp is turned OFF.
3. Press the [**ENTER**] soft key to store the selected level.
4. Press the [**CLEAR**] key to return to radio operation.

16.11 SUMMARY OF THE CANNEL FUNCTION SETUP

Item	Description	Default Value	Page
CHANNEL GROUP	Selects the channel group	(Depending on the transceiver version)	28
WEATHER ALERT (USA version only)	Turns the Weather Alert Function ON or OFF	OFF	87
SCAN MEMORY	Add or remove a channel from Scan Memory	–	31
SCAN TYPE	Select priority scan or memory scan	PRIORITY	31
SCAN RESUME	Sets the resume time of scanning	3 sec	87
MULTI WATCH	Selects Dual Watch or Triple Watch	DUAL	30
PRIORITY CHANNEL	Selects a priority channel	CH16	88
SUB CHANNEL	Selects a Sub Channel	CH09	88
CHANNEL NAME	Edit the name of memory channels	–	88
RX LED DIMMER	Adjusts the RX LED dimmer level	7	89

17 DSC SETUP

17.1 INDIVIDUAL DIRECTORY

The **GX1850/GX1800** series has a DSC directory that allows you to store a vessel or person's name, and the associated MMSI that you may wish to contact via individual calls, position requests and position report transmissions.
To transmit an individual call, program this directory with the information of the vessel you wish to contact, similar to a cellular phone's contact list.
Refer to section "**11.4.1 Setting up the Individual / Position Call Directory**" for details.

17.2 INDIVIDUAL REPLY

This menu item sets the radio to automatically (default setting) or manually respond to a DSC Individual call requesting you to switch to a working channel for voice communications. When "MANUAL" is selected, the MMSI of the calling vessel is shown allowing you to see who is calling. This function is similar to caller ID on a cellular phone.
Refer to section "**11.4.2 Setting up the Individual Call Reply**" for details.

17.3 INDIVIDUAL ACKNOWLEDGMENT

The radio can be setup to transmit a reply automatically (default), or set so the radio will not reply to an individual DSC call.
Refer to section "**11.4.3 Enabling the Individual Call Acknowledgment**" for details.

17.4 INDIVIDUAL RINGER

The radio can be setup to ring like a telephone to alert you that the radio has received a DSC individual call. The default ring time setting is 2 minutes, however this can be changed to 5, 10 or 15 seconds with the procedure below.
Refer to section "**11.4.6 Setting up the Individual Call Ringer**" for details.

17.5 GROUP DIRECTORY

For this function to operate, the same group MMSI must be programmed into all the DSC VHF radios within the group of vessels that will be using this feature.
Refer to section "**11.5.1 Setting up a Group Call**" for details.

17.6 POSITION REPLY

The **GX1850/GX1800** series can be set up to automatically (default setting) or manually send your position when requested by another vessel. This selection is important if you are concerned about someone polling the position of your vessel that you may not want to. In the manual mode you will see the MMSI (Maritime Mobile Service Identity Number) or persons name, shown on the display allowing you to choose whether or not to send your position to the requesting vessel.

Refer to section "**11.6.1 Setting up a Position Request Reply**" for details.

17.7 AUTO POSITION POLLING

The **GX1850/GX1800** series has the capability to automatically poll and track seven vessels programmed into the individual directory.

Refer to section "**11.8 AUTO POSITION POLLING**" for details.

17.8 AUTO POSITION INTERVAL

The time interval between automatic position polling request transmissions may be selected.

Refer to section "**11.8.2 Setting up the Polling Time Interval**" for details.

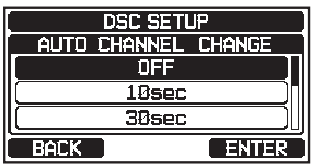
17.9 AUTO CHANNEL CHANGE

When a DSC distress call, or an all ships (urgency or safety) call is received, the **GX1850/GX1800** series will automatically switch to Channel 16.

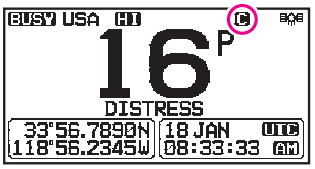
The automatic switch time may be changed. The default selection is 30 seconds.

1. Press & hold [MENU/SET] ➠ "**DSC SETUP**" ➠ "**AUTO CHANNEL CHANGE**"

2. Press the [▲] or [▼] key to select the desired time, then press the [**ENTER**] soft key.
3. Press the [**CLEAR**] key to return to radio operation.



When "**OFF**" is selected, the "**C**" icon will light up on the screen.



17.10 NO ACTION TIMER

If no key is pressed during the “MENU” or “DSC CALL” screen, the transceiver will automatically return to radio operation.
The default selection is 10 minutes.

1. Press & hold [MENU /SET] ➠ “**DSC SETUP**” ➠ “**NO ACTION TIMER**”

2. Press the [▲] or [▼] key to select the desired time, then press the [**ENTER**] soft key.
3. Press the [**CLEAR**] key to return to radio operation.

17.11 WAIT TIME FOR POSITION FIX

This menu allows you to select the maximum wait time till obtaining position information when receiving a distress call, POS Report call, or acknowledgement to POS request call.
The default selection is 15 seconds.

1. Press & hold [MENU /SET] ➠ “**DSC SETUP**” ➠ “**POS UNFIX WAITING TIME**”

2. Press the [▲] or [▼] key to select the desired time, then press the [**ENTER**] soft key.
3. Press the [**CLEAR**] key to return to radio operation.

17.12 DSC BEEP

This feature allows the alarm beeps to be turned on or off when a DSC call is received. The DSC calls that can be customized are: individual, group, all ships, position request, position report, geographical, polling, and DSC test.
Refer to section “**11.5.4 Setting up the Group Call Ringer**” for details.

17.13 SUMMARY OF THE DSC SETUP MENU

Item	Description	Default Value	Page
INDIVIDUAL DIRECTORY	Enter or edit addresses used for individual call	–	44
INDIVIDUAL REPLY	Selects a reply to an individual call	MANUAL	45
INDIVIDUAL ACK.	Selects the message to be sent automatically as an individual call acknowledgement	ABLE	46
INDIVIDUAL RING	Selects the ringing time when an individual call or a position request is received	2 min	49

Item	Description	Default Value	Page
GROUP DIRECTORY	Enter or edit addresses used for group calling	–	50
POSITION REPLY	Selects reply mode when receiving a position call	AUTO	55
AUTO POSITION POLLING	Selects the AUTO POSITION POLLING operation type	AUTO POS REPORT	62
AUTO POS INTERVAL	Selects the AUTO POSITION POLLING transmission interval	30 sec	62
AUTO CHANNEL CHANGE	Selects the delay time to automatically move to the requested channel after receiving a distress call, All Ship call, or group call	30 sec	91
NO ACTION TIMER	Selects the delay time before automatically returning to routine transceiver operation when no key is pressed	10 min	92
POS UNFIX WAITING TIME	Sets the maximum wait time to obtain position information when receiving a distress call, POS Report call, or acknowledgement to POS request call	15 sec	92
DSC BEEP	Turns the audible alarm ON or OFF when receiving a DSC call	INDIVIDUAL CALL: ON GROUP CALL: ON ALL SHIPS: ON POS REQUEST: OFF POS REPORT: OFF GEOGRAPHICAL: ON DSC TEST CALL: ON	92

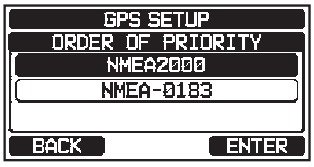
18 GPS SETUP

The “GPS Setup” mode allows the parameters for the NMEA2000 or the NMEA -0183 or the Internal GPS receiver to be customized for your operating requirements.

18.1 ORDER OF PRIORITY (GX1850 series only)

Specify the order of priority of the input devices to be used for obtaining location information. The default setting is “NMEA2000”.

1. Press & hold [MENU/SET] ➠ “**GPS SETUP**” ➠ “**ORDER OF PRIORITY**”



2. Press the [▲] or [▼] key to select “**NMEA2000**” or “**NMEA-0183**”, then press the [**ENTER**] soft key to save the new setting.
3. Press the [**CLEAR**] key to return to radio operation.

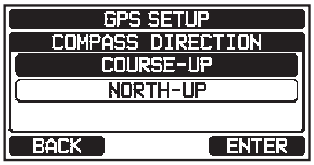
NOTE

The Internal GPS receiver is always set as the lowest priority.

18.2 COMPASS DIRECTION

This menu item selects the compass direction to be shown on the transceiver display. The default setting is “NORTH-UP”.

1. Press & hold [MENU/SET] ➠ “**GPS SETUP**” ➠ “**COMPASS DIRECTION**”



2. Press the [▲] or [▼] key to select the desired compass display to “**COURSE-UP**” or “**NORTH-UP**”.
3. Press the [**ENTER**] soft key to save the new setting.
4. Press the [**CLEAR**] key to return to radio operation.

18.3 LOCATION FORMAT

This menu item selects the coordinate system to be shown on the transceiver series display. The default setting is “ddd°mm.mmmm”.

1. Press & hold [MENU/SET] ➠ “**GPS SETUP**” ➠ “**LOCATION FORMAT**”

2. Press the [▲] or [▼] key to select the desired coordinate system. The location format can be selected from “**ddd°mm.mmmm**” and “**ddd°mm’ss”**”.
3. Press the [**ENTER**] soft key to save the new setting.
4. Press the [**CLEAR**] key to return to radio operation.

18.4 TIME OFFSET

Sets the local time offset between UTC (Universal Time Coordinated) and local time shown on the display. The offset is added or subtracted from the time received from the GPS.

Refer to section "**8.8.1 Setting the GPS Time**" for details.

18.5 TIME AREA

This menu selection sets the display to show UTC time or local time with the offset.

Refer to section "**8.8.2 Setting the Time Area**" for details.

18.6 TIME FORMAT

This menu selection sets the display to show time in 12-hour or 24-hour format.

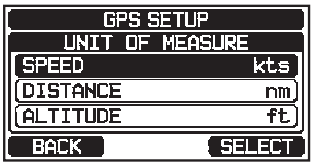
Refer to section "**8.8.3 Setting the Time Format**" for details.

18.7 UNITS OF MEASURE

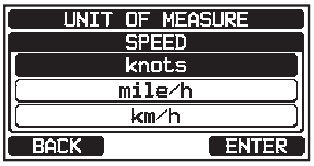
This section sets the display units of speed, distance and altitude.

1. Press & hold [MENU /SET] ➠ "**GPS SETUP**" ➠ "**UNIT OF MEASURE**"

2. Press the [▲] or [▼] key to select the item to be set.
3. Press the [**SELECT**] soft key.



4. Press the [▲] or [▼] key to select the unit.
5. Press the [**ENTER**] soft key to store the new setting.
6. Press the [**CLEAR**] key to return to radio operation.



18.8 MAGNETIC VARIATION

This selection permits customization of the GPS COG (Course Over Ground) indication on the normal and compass pages, and BRG on the waypoint page.

Refer to section "**8.8.4 Setting COG to True or Magnetic**" for details.

NOTE

Setting to "ON" is effective only when the RMC sentences with magnetic data are input from external devices such as a GPS chart plotter.

18.9 NMEA 0183 IN/OUT

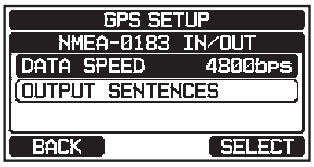
18.9.1 Data Speed

This menu is utilized to set the NMEA 0183 baud rate of the GPS input (Yellow and Green wires) and DSC output (White and Brown wires). The default setting is 4800 bps.

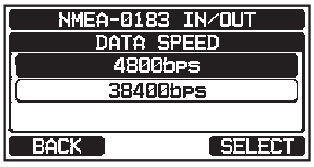
When 38400 bps is selected the DSC sentences (DSC & DSE) are output on the White and Brown wires after a DSC distress, position request is received.

1. Press & hold [MENU/SET] ➠ “**GPS SETUP**” ➠ “**NMEA 0183 IN/OUT**”

2. Press the [▲] or [▼] key to select “**DATA SPEED**”, then press the [**SELECT**] soft key.



3. Press the [▲] or [▼] key to select the desired speed from “**4800bps**” and “**38400bps**”.
4. Press the [**ENTER**] soft key to save the new setting.
5. Press the [**CLEAR**] key to return to radio operation.

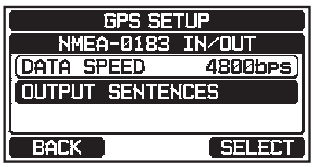


18.9.2 Output Sentences

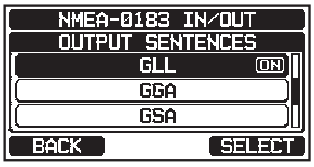
This selection is utilized to set the NMEA output sentences of the transceiver. By default, the “GLL” and the “RMC” sentences are turned “ON”.

1. Press & hold [MENU/SET] ➠ “**GPS SETUP**” ➠ “**NMEA 0183 IN/OUT**”

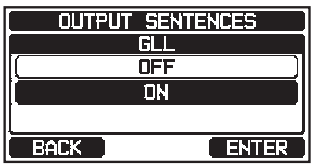
2. Press the [▲] or [▼] key to select “**OUTPUT SENTENCES**”, then press the [**SELECT**] soft key.



3. Press the [▲] or [▼] key to select the desired sentence type, then press the [**SELECT**] soft key.



4. Press the [▲] or [▼] key to select “**ON**” or “**OFF**”.
5. Press the [**ENTER**] soft key to save the new setting.
6. Repeat steps 3 through 5 to set the other sentences.
7. Press the [**CLEAR**] key to return to radio operation.



NOTE

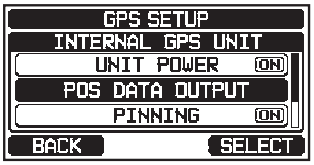
- Data output will be performed according to the data acquisition priority order setting of “ORDER OF PRIORITY”. Refer to section “**18.1 ORDER OF PRIORITY (GX1850 series only)**” for details.
- When “UNIT POWER” of “OPTION GPS UNIT” is set to OFF, NMEA sentences will not be output. (OPTION GPS reception data will be output as is.)
- The output interval of each NMEA sentence depends on the output timing on the input device. However, sentences which include POS data will be output at intervals of two seconds or less.
- When all sentences are set to be output, depending on the baud rate, not all sentences can be output at intervals of one second or less. GSA and GSV sentences will be output at intervals of around five seconds.

18.10 Position Data Output

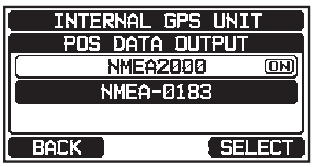
Select the connection device to be used when outputting position data.

1. Press & hold [MENU /SET] ➠ "**GPS SETUP**" ➠ "**OPTION GPS UNIT**"

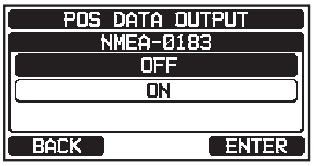
2. Press the [▲] or [▼] key to select "**POS DATA OUTPUT**", then press the [**SELECT**] soft key.



3. Press the [▲] or [▼] key to select "**NMEA 2000**" or "**NMEA 0183**", then press the [**SELECT**] soft key.



4. Press the [▲] or [▼] key to select "**OFF**" or "**ON**".
5. Press the [**ENTER**] soft key to store the new setting.
6. Press the [**CLEAR**] key to return to radio operation.



18.11 INTERNAL GPS UNIT

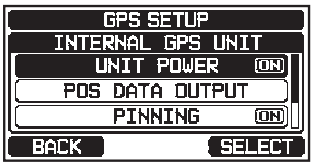
Change the internal GPS receiver settings. (The settings in this section are also valid when connecting the **SCU-38** External GPS Antenna to the internal GPS receiver.)

18.11.1 Unit Power

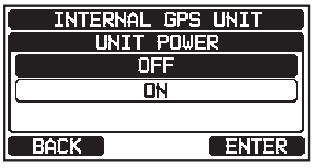
When the internal GPS receiver is used, set this selection to "**ON**". The default setting is "ON".

1. Press & hold [MENU /SET] ➠ "**GPS SETUP**" ➠ "**INTERNAL GPS UNIT**"

2. Press the [▲] or [▼] key to select "**UNIT POWER**", then press the [**SELECT**] soft key.



3. Press the [▲] or [▼] key to select "**OFF**" or "**ON**".
4. Press the [**ENTER**] soft key to store the new setting.
5. Press the [**CLEAR**] key to return to radio operation.

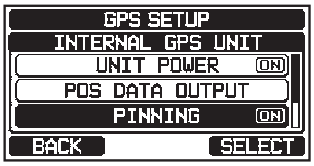


18.11.2 Pinning

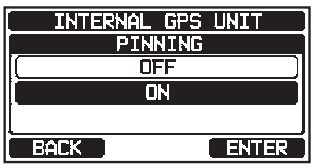
This selection is utilized to enable or disable position updates when the vessel is not underway. The default setting is “ON”.

1. Press & hold [MENU/SET] ➠ “**GPS SETUP**” ➠ “**INTERNAL GPS UNIT**”

2. Press the [▲] or [▼] key to select “**PINNING**”, then press the [**SELECT**] soft key.



3. Press the [▲] or [▼] key to select “**OFF**” or “**ON**”.
   ON: When pinning is turned ON, the transceiver will not update its position unless the ship’s speed is over 0.4 knot.
   OFF: When the vessel is underway or stopped, the transceiver continuously updates its position. This improves accuracy of the position fix.
4. Press the [**ENTER**] soft key to save the new setting.
5. Press the [**CLEAR**] key to return to routine transceiver operation.

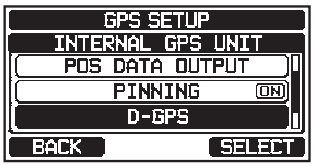


18.11.3 Differential GPS

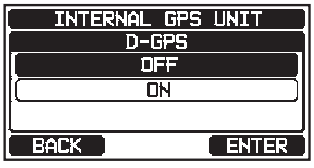
This selection enables or disables differential GPS function by SBAS (Satellite Based Augmentation System) such as WAAS, EGNOS and MSAS. In some areas (Australia for example), the GPS reception can have problems enabling the SBAS. The default setting is “ON”.

1. Press & hold [MENU/SET] ➠ “**GPS SETUP**” ➠ “**INTERNAL GPS UNIT**”

2. Press the [▲] or [▼] key to select “**D-GPS**”, then press the [**SELECT**] soft key.



3. Press the [▲] or [▼] key to select “**OFF**” or “**ON**”.
4. Press the [**ENTER**] soft key to store the new setting.
5. Press the [**CLEAR**] key to return to radio operation.



18.12 SUMMARY OF THE GPS SETUP

Item	Description	Default Value	Page
ORDER OF PRIORITY (GX1850 series only)	Sets the priority order of the connection devices when obtaining position information	NMEA-2000	94
COMPASS DIRECTION	Selects the compass direction to be displayed	NORTH-UP	94
LOCATION FORMAT	Selects the coordinate system to be displayed	ddd°mm.mmmm	94
TIME OFFSET	Sets the offset time from UTC (available only when “LOCAL” is selected in the item “TIME AREA”)	00:00	95
TIME AREA	Selects the time location to be displayed, from UTC or local	UTC	95
TIME FORMAT	Selects the time format to be displayed, 12-hour or 24-hour (fixed to “24H” when “UTC” is selected in the item “TIME AREA”)	24hour	95
UNITS OF MEASURE	Selects the unit of measure when displaying speed, distance, and altitude	SPEED: kts (knots) DISTANCE: nm (nautical mile) ALTITUDE: ft (feet)	95
MAGNETIC VARIATION	Enables/disables the magnetic variation function	OFF	95
NMEA 0183 IN/OUT			
DATA SPEED	Sets the NMEA 0183 data speed	4800bps	95
OUTPUT SENTENCES	Enables/disables NMEA sentences	GLL: ON GGA: OFF GSA: OFF GSV: OFF RMC: ON DSC/DSE: OFF	96
INTERNAL GPS UNIT			
UNIT POWER	Enables/disables the OPTION GPS UNIT	ON	97
POS DATA OUTPUT	Selects the connection device when outputting position data	NMEA 2000: OFF NMEA-0183: OFF	97
PINNING	Turns on or off GPS position updates for vessel not underway	ON	98
D-GPS	Turns SBAS ON or OFF	ON	98

19 ATIS SETUP (GX1850GPS/E and GX1800GPS/E only)

The **GX1850GPS/E** and **GX1800GPS/E** supports the ATIS (Automatic Transmitter Identification System) used in Inland waterways in Europe. When enabled ATIS mode transmits a unique ATIS code each time the PTT switch is released at the end of a transmission.

Users should check with their local marine regulatory authority in their country for assistance in obtaining an ATIS code.

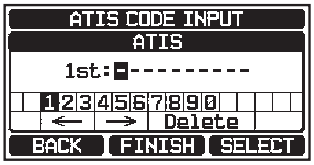
WARNING

The ATIS code can be inputted only once, please be careful not to input the incorrect ATIS code. If the ATIS code needs to be reset, please contact Standard Horizon to obtain the required reset code. Refer to section "**15.6.1 Reset the USER MMSI and ATIS CODE**".

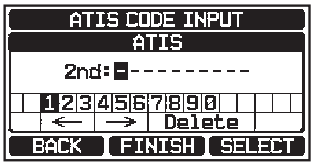
19.1 ATIS CODE PROGRAMMING

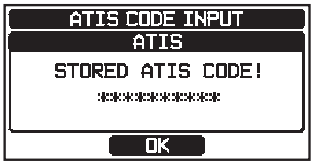
1. Press & hold [MENU/SET] ➠ "**ATIS SETUP**" ➠ "**ATIS CODE**"

2. Press the [◄] or [►] key to select the first number of your ATIS, then press the [**SELECT**] soft key to step to the next number.
3. Repeat step 2 to set the ten digits of the ATIS.



4. If a mistake is made in entering the ATIS, press the [▲]/[▼]/[◄]/[►] keys to select "←" or "→", press the [**SELECT**] soft key until the incorrect number is selected, then perform step 2.
5. When entering the number is complete, press the [**FINISH**] soft key. The Radio will ask you to input the ATIS number again. Perform steps 2 through 4 above.
6. After the number has been entered twice, press the [**FINISH**] soft key to store the ATIS number in memory.
7. Press the [**OK**] soft key to return to radio operation.





19.2 ATIS CH GROUP

The **GX1850GPS/E** and **GX1800GPS/E** ATIS feature may be turned ON or OFF for each channel group.

1. Press & hold [MENU/SET] ➠ "**ATIS SETUP**" ➠ "**ATIS GROUP**"

2. Press the [▲] or [▼] key to select the channel group (International, Canadian*, or USA) to change the setting, and then press the [**SELECT**] soft key.
   *(Depending on the region setting.)
3. Press the [▲] or [▼] key to select "**ON**" or "**OFF**".
4. Press the [**ENTER**] soft key to save the new setting.
5. To set the ATIS feature for another channel group, repeat steps 2 through 4.
6. Press the [**BACK**] soft key to return to radio operation.

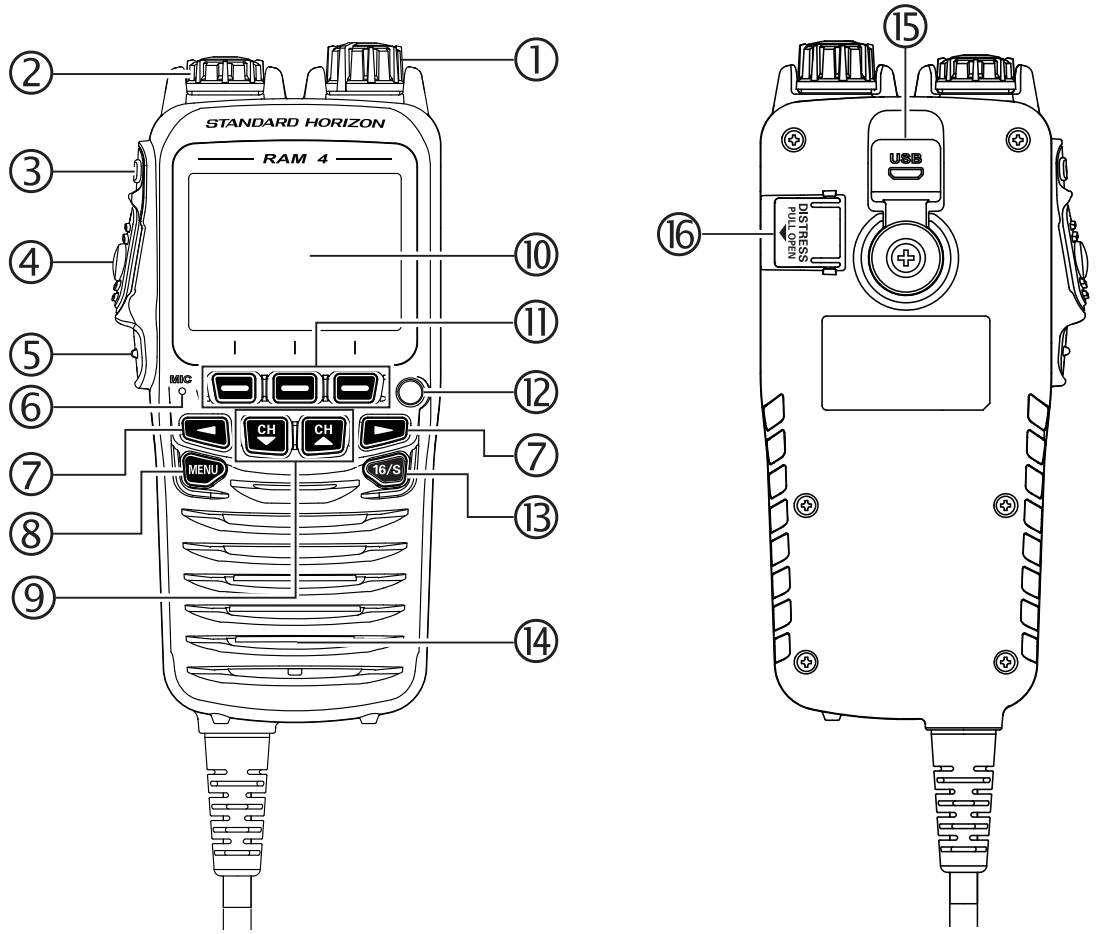
NOTE

- The "Scan" and "Dual Watch" features are not available on the channel group while the ATIS feature is turned on.
- The TX output power is set to "1 W" automatically on the following channels of the channel group while the ATIS feature is turned on.
  CH 06, 08, 10, 11, 12, 13, 14, 15, 17, 71, 72, 74, 75, 76, and 77

20 SSM-70H (RAM4) REMOTE MIC OPERATION

When a remote microphone is connected to the **GX1850/GX1800** series, all VHF, DSC, setup menus, Navigation and GM (Group Monitor) functions can be remotely operated. The **SSM-70H** operation is the same as the **GX1850/GX1800** series except for the receiver audio volume setting and the squelch level setting. The reason for combined controlling is to make the operation of the radio and **SSM-70H** Remote Microphone uncomplicated. For specific operations of the **SSM-70H** Remote Microphone, review sections in the transceiver operating manual. The **SSM-70H** is supplied with 7 meters of routing cable and can be extended up to 21 meters using three 7-meter extension cables model **CT-100**. The Intercom feature can be used between the **SSM-70H** and the **GX1850/GX1800** series. In addition, speaker wires are supplied at the panel mount of the routing cable for external speakers to be connected for use in noisy environments.

20.1 REMOTE MIC CONTROLS



① **Power/VOL knob**

Press and hold this knob to turn the transceiver and the remote mic ON or OFF.

Rotate this knob to adjust the internal speaker volume.

② **DIAL/ENT knob**

While the normal screen is displayed, rotate the **DIAL/ENT** knob to select your desired channel. While the MENU screen is displayed, rotate the knob to select the desired menu item.

SECONDARY USE

Press this knob to enter a selection in the MENU.

③ **SQL key** (Squelch control)

Press this key to activate the squelch adjusting mode. Press the **CH▲** or **CH▼** key to adjust the squelch threshold level.

④ **PTT** (Push-To-Talk) **switch**

Push this switch to enable the transmitter.

⑤ **CLEAR/ key**

Press this key to cancel a menu selection. Press and hold this key to activate the key lock function. Press and hold this key again to deactivate the key lock function.

⑥ **Microphone**

The internal microphone transmits your voice while reducing background noise using Clear Voice Noise Reduction Technology.

NOTE: Position the microphone about 1.5 cm away from your mouth and speak in a normal voice.

⑦ **◄ & ► keys**

When the soft keys are displayed, press these keys to switch the function of the soft keys.

SECONDARY USE

While the MENU screen is displayed, press the keys to slide the on-screen menu to the right/left side.

⑧ **MENU key**

Press to access the MENU.

Press and hold this key to access the SETUP MENU.

⑨ **CH▼ & CH▲ keys**

These keys are used to change the operating channel.

Press the key momentarily, the channel increases or decreases one step.

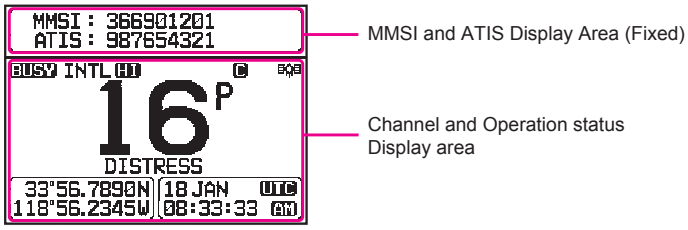
Hold the key and the channel increases or decreases continuously.

SECONDARY USE

- While the MENU screen is displayed, press the key to slide the on-screen menu upward/downward.
- When in the PA or Fog mode, press the key to change the channel.

⑩ **Display**

Full dot matrix display, 222 by 162 pixels.



⑪ **Soft keys**

These three programmable keys can be customized utilizing the setup menu. Press one of these keys, to display the key functions at the bottom of the display. Refer to section "**20.2 RAM4 SOFT KEY ASSIGNMENT**" for details.

⑫ **Strobe Light**

When the [**STROBE**] soft key is pressed, the internationally recognized Morse Code "S.O.S" message will light and flash repeatedly.

From MENU → SETUP → CONFIGURATION → STROBE LED, the strobe light may be set to one option from: "CONTINUOUS", "SOS", "BLINK 1", "BLINK 2" or "BLINK 3".

⑬ **16/S key**

Pressing this key immediately reverts to channel 16 from any channel location. Holding down this key recalls the SUB channel (The default setting is channel 9). Press this key again to revert to the previously selected working channel.

⑭ **Speaker**

The internal speaker is located here.

⑮ **DATA jack**

Use the micro USB type B jack for **SSM-70H** (**RAM4**) firmware updates.

NOTE: When the DATA jack is securely covered with the rubber cap, the SSM-70H meets the waterproof performance.

⑯ **DISTRESS key**

This key is used to send a DSC distress call. Refer to section "**11 DIGITAL SELECTIVE CALLING (DSC)**".

20.2 RAM4 SOFT KEY ASSIGNMENT

From this menu, desired functions may be assigned to each **RAM4** soft key from numbers 01 to 12. Also, the duration the soft key icon will be displayed after the corresponding soft key is pressed may be set. The keys may be setup to control the following functions:

DISPLAY	SOFT KEY ICON	FUNCTION	SOFT KEY NUMBERS ASSIGNED AS DEFAULT (See the previous page.)
NONE	–	–	–
WX/CH		Switches between weather and marine channels	01 (GX1850GPS, GX1850, GX1800GPS, GX1800)
SCAN		Turns scanning function ON or OFF	05
SCAN MEMORY		Add or remove channels from memory channel scan	04
MULTI WATCH		Starts and stops dual watch scan or triple watch scan	06
PRESET		Programs or deletes the preset memory channel	10 (GX1850GPS, GX1850, GX1800GPS, GX1800) 01 (GX1850GPS/E, GX1800GPS/E)
INTERCOM		Activates intercom communication between radio and the optional RAM4 mic (SSM-70H)	11
MARK POSITION		Marks the current position for a “Waypoint”	07
NAVIGATION		Enables the “Waypoint” or “Route” navigation display	08
COMPASS		Enables the “Compass” display	09
TX HI/LO		Selects transmit power	02
MAN OVERBOARD		Marks the position where a person falls overboard	03
STROBE		Turns the strobe light LED ON or OFF	12
CH NAME		Edit channel names	10 (GX1850GPS/E, GX1800GPS/E)
DISPLAY MODE		Switches the display between daytime or nighttime mode	

NOTE

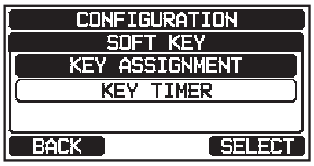
Soft key functions may be assigned individually for the transceiver and the optional **SSM-70H** (**RAM4**) remote microphone.

20.2.1 Key Assignment

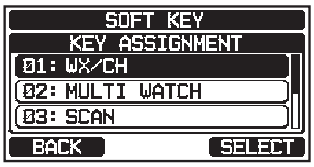
Customize the functions of SSM-70H (RAM4) remote microphone soft keys for personal preferences.

NOTE: It is necessary to make the settings using the keys or the **DIAL/ENT** knob on the SSM-70H (RAM4).

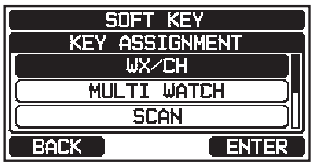
1. Press & hold [MENU] ➠ "**CONFIGURATION**" ➠ "**SOFT KEY**"
   (RAM4W)
2. Rotate the **DIAL/ENT** knob to select "**KEY ASSIGNMENT**", then press the [**SELECT**] soft key.



3. Rotate the **DIAL/ENT** knob to select the key number to be programmed, and press the [**SELECT**] soft key.



4. Rotate the **DIAL/ENT** knob to select a new function to be assigned, and press the [**ENTER**] soft key. Available functions are listed below. By selecting "**NONE**" the soft key assignment is removed.



5. Repeat steps 3 and 4 to program other soft keys.
   The VHF radio's functions can be assigned to the maximum of 12 soft keys.
6. Press the [**CLEAR/**🔑] key to return to radio operation.

21 MAINTENANCE

The inherent quality of the solid-state components used in this transceiver will provide many years of continuous use. Taking the following precautions will prevent damage to the transceiver.

- Never key the microphone unless an antenna or suitable dummy load is connected to the transceiver.
- Ensure that the supply voltage to the transceiver does not exceed 16 VDC or fall below 11 VDC.
- Use only STANDARD HORIZON approved accessories and replacement parts.

21.1 REPLACEMENT PARTS

Occasionally an owner needs a replacement mounting bracket or knob. These can be ordered from your Dealer.

Commonly requested parts, and their part numbers are listed below.

- **DC Power Cord**: T9025406
- **VOL and SQL Knob**: RA6189800 (White), RA6189900 (Black)
- **Mounting Bracket**: RA6203800 (White), RA6203900 (Black)
- **Mounting Bracket Knob**: RA6204000 (White), RA6204100 (Black)
- **Microphone Hanger**: RA0436000 (White), RA0458800 (Black)
- **RAM4 Mic Routing Cable Assembly**: S8101512

21.2 FACTORY SERVICE

In the unlikely event that the transceiver fails to perform or needs servicing, please contact one of following:

In USA and Canada

Standard Horizon
Attention Marine Repair Department
6125 Phyllis Drive, Cypress, California 90630, U.S.A.
Telephone (800) 366-4566

In Europe

Yaesu (UK) Ltd
Unit 12, Sun Valley Business Park, Winnall Close
Winchester, Hampshire, SO23 0LB, U. K.
Telephone +44 (0)1962 866667

In Other Countries

Contact the dealer or the distributor.

21.3 TROUBLESHOOTING CHART

SYMPTOM	PROBABLE CAUSE	REMEDY
Transceiver fails to power up.	No DC voltage to the transceiver, or blown fuse.	a. Check the 12 VDC battery connections and the fuse. b. The ⏻ key needs to be pressed and held to turn the radio on.
Transceiver blows fuse when connected to power supply.	Reversed power wires.	Check the power cable for DC voltage, or replace the fuse (6A). Make sure the red wire is connected to the positive (+) battery post, and the black wire is connected to the negative (–) battery post. If the fuse still blows, contact your Dealer.
Popping or whining noise from the speaker while engine runs.	Engine noise.	Re-route the DC power cables away from the engine. Add noise suppressor on power cable. Change to resistive spark plug wires and/or add an alternator whine filter.
Sound is not emitted from the internal or external speaker.	Accessory cable.	Check the connections of the accessory cable. External speaker cable (WHITE/SHIELD) may be shorted together.
Receiving station reports low transmit power, even with transceiver set to HI power.	Antenna.	Have the antenna checked or test the transceiver with another antenna. If the problem persists, contact your Dealer for servicing.
"HI BATTERY" or "LO BATTERY" message appears when the power is turned on.	The power supply voltage is too high or too low.	Confirm that the connected power supply voltage is between 11 volts and 16.5 volts DC.
Your position is not displayed.	Setting of the GPS SETUP.	Check the "UNIT POWER" setting is "ON". For details, refer to the "**18.11.1 Unit Power**".
	Accessory cable.	Check the accessory cable connection. Some GPS use the battery ground for NMEA connection.
	SCU-38 cable.	Check the **SCU-38** cable connection.
	Setting of the GPS chart plotter.	Check the output signal format of the GPS navigation receiver. This radio requires NMEA 0183 and NMEA 2000 format with GLL, RMB, or RMC sentence as an output signal. If the GPS has a baud rate setting make sure to select 4800 and parity to NONE.

22 CHANNEL ASSIGNMENTS

22.1 GX1850GPS, GX1850, GX1800GPS and GX1800

VHF MARINE CHANNEL CHART							
CH	**U**	**C**	**I**	**S/D**	**TX**	**RX**	**CHANNEL USE**
01		X	X	D	156.050	160.650	Public Correspondence (Marine Operator)
1001	X			S	156.050		Port Operation and Commercial. VTS in selected areas
02		X	X	D	156.100	160.700	Public Correspondence (Marine Operator)
03		X	X	D	156.150	160.750	Public Correspondence (Marine Operator)
1003	**X**			**S**	**156.150**		**U.S. Government Only, Coast Guard**
04			X	D	156.200	160.800	Public Correspondence (Marine Operator), Port operation, ship movement
1004		X		S	156.200		Pacific coast: Coast Guard, East Coast: Commercial fishing
05			X	D	156.250	160.850	Public Correspondence (Marine Operator), Port operation, ship movement
1005	X	X		S	156.250		Port operation. VTS in Seattle
06	X	X	X	S	156.300		Inter-ship Safety
07			X	D	156.350	160.950	Public Correspondence (Marine Operator), Port operation, ship movement
1007	X	X		S	156.350		Commercial
08	X	X	X	S	156.400		Commercial (Inter-ship only)
09	X	X	X	S	156.450		Boater Calling channel, Commercial & Non-commercial (Recreational)
10	X	X	X	S	156.500		Commercial
11	X	X	X	S	156.550		Commercial. VTS in selected areas.
12	X	X	X	S	156.600		Port operation. VTS in selected areas.
13	X	X	X	S	156.650		Inter-ship Navigation Safety (Bridge-to-bridge)
14	X	X	X	S	156.700		Port operation. VTS in selected areas.
15	X			S	- - -	156.750	Environmental (Receive only)
15		X	X	S	156.750		Commercial, non-commercial, ship movement (1 W)
16	X	X	X	S	156.800		International Distress, Safety and Calling
17	X	X	X	S	156.850		State Controlled (1 W)
18			X	D	156.900	161.500	Port operation, ship movement
1018	X	X		S	156.900		Commercial
19			X	D	156.950	161.550	Port operation, ship movement
1019	X	X		S	156.950		Commercial (USA) Coast Guard (Canada)
1019			X	S	156.950		
2019			X	S	161.550		
20	X	X	X	D	157.000	161.600	Canadian Coast Guard Only, International: port operations and shipment
1020			X	S	157.000		
1020	X			S	157.000		Port operation
2020			X	S	161.600		
21			X	D	157.050	161.650	Port operation, ship movement
1021	**X**	**X**		**S**	**157.050**		**U.S. Government Only (USA)** **Canadian Coast Guard (Canada)**
2021		X			- - -	161.650	CMB Service

VHF MARINE CHANNEL CHART							
CH	**U**	**C**	**I**	**S/D**	**TX**	**RX**	**CHANNEL USE**
22			X	D	157.100	161.700	Port operation, ship movement
1022	X	X		S	157.100		US Coast Guard Liaison and Maritime Safety Information Broadcasts announced on channel 16 (USA) Canadian Coast Guard Liaison and Maritime Safety Information Broadcasts announced on channel 16 (Canada)
23		X	X	D	157.150	161.750	Public Correspondence (Marine Operator)
1023	**X**			**S**	**157.150**		**U.S. Government Only**
2023		X			- - -	161.750	CMB Service
24	X	X	X	D	157.200	161.800	Public Correspondence (Marine Operator)
25	X	X	X	D	157.250	161.850	Public Correspondence (Marine Operator)
2025		X			- - -	161.850	CMB Service
26	X	X	X	D	157.300	161.900	Public Correspondence (Marine Operator)
27	X	X	X	D	157.350	161.950	Public Correspondence (Marine Operator)
28	X	X	X	D	157.400	162.000	Public Correspondence (Marine Operator)
2028		X			- - -	162.000	CMB Service
60		X	X	D	156.025	160.625	Public Correspondence (Marine Operator)
61			X	D	156.075	160.675	Public Correspondence (Marine Operator), Port operation, ship movement
1061	**X**	**X**		**S**	**156.075**		**Public Coast: Coast Guard; East Coast: commercial fishing only**
62			X	D	156.125	160.725	Public Correspondence (Marine Operator), Port operation, ship movement
1062		X		S	156.125		Public Coast: Coast Guard; East Coast: commercial fishing only
63			X	D	156.175	160.775	Public Correspondence (Marine Operator), Port operation, ship movement
1063	X	X		S	156.175		Port Operation and Commercial. VTS in selected areas.
64		X	X	D	156.225	160.825	Public Correspondence (Marine Operator), Port operation, ship movement
1064	**X**	**X**		**S**	**156.225**		**Public Correspondence (Marine Operator), Port operation, ship movement**
65			X	D	156.275	160.875	Public Correspondence (Marine Operator), Port operation, ship movement
1065	X	X		S	156.275		Port Operations
66			X	D	156.325	160.925	Public Correspondence (Marine Operator), Port operation, ship movement
1066	X	X		S	156.325		Port Operations
67	X	X	X	S	156.375		US: Commercial. Used for Bridge-to-bridge communications in lower Mississippi River. Inter-ship only. Canada: Commercial fishing, S&R
68	X	X	X	S	156.425		Non-commercial (Recreational)
69	X	X	X	S	156.475		US: Non-commercial (Recreational), Canada: Commercial fishing only, International: Inter-ship, Port operations and Ship movement
70	X	X	X	S	- - -	156.525	Digital selective calling (voice communications not allowed)
71	X	X	X	S	156.575		US, Canada: Non-commercial (Recreational), International: Port operations and Ship movement

VHF MARINE CHANNEL CHART							
CH	**U**	**C**	**I**	**S/D**	**TX**	**RX**	**CHANNEL USE**
72	X	X	X	S	156.625		Non-commercial (Inter-ship only)
73	X	X	X	S	156.675		US: Port Operations, Canada: Commercial fishing only, International: Inter-ship, Port operations and Ship movement
74	X	X	X	S	156.725		US: Port Operations, Canada: Commercial fishing only, International: Inter-ship, Port operations and Ship movement
75	X	X	X	S	156.775		Port Operations (Inter-ship only) (1 W)
76	X	X	X	S	156.825		Port Operations (Inter-ship only) (1 W)
77	X	X		S	156.875		Port Operations (Inter-ship only) (1 W)
77			X	S	156.875		Port Operations (Inter-ship only)
78			X	D	156.925	161.525	Public Correspondence (Marine Operator), Port operation, ship-movement
1078	X	X		S	156.925		Non-commercial (Recreational)
1078			X	S	156.925		Port operation and Ship movement
2078			X	S	161.525		
79			X	D	156.975	161.575	Port operation and Ship movement
1079	X	X		S	156.975		Commercial
1079			X	S	156.975		Port operation and Ship movement
2079			X	S	161.575		
80			X	D	157.025	161.625	Port operation, ship movement
1080	X	X		S	157.025		Commercial
81			X	D	157.075	161.675	Port operation, ship movement
1081	**X**	**X**		**S**	**157.075**		**U.S. Government Only - Environmental protection operations. (USA)** **Canadian Coast Guard Only (Canada)**
82			X	D	157.125	161.725	Public Correspondence (Marine Operator), Port operation, ship movement
1082	**X**	**X**		**S**	**157.125**		**U.S. Government Only (USA)** **Canadian Coast Guard Only (Canada)**
83			X	D	157.175	161.775	Public Correspondence (Marine Operator)
1083	**X**	**X**		**S**	**157.175**		**U.S. Government Only (USA)** **Canadian Coast Guard Only (Canada)**
2083		X			- - -	161.775	CMB Service
84	X	X	X	D	157.225	161.825	Public Correspondence (Marine Operator)
85	X	X	X	D	157.275	161.875	Public Correspondence (Marine Operator)
86	X	X	X	D	157.325	161.925	Public Correspondence (Marine Operator)
87	X	X	X	S	157.375		Port operation, ship movement
88	X	X	X	S	157.425		Port operation, ship movement Commercial, Inter-ship Only

NOTE: Simplex channels, 1003, 1021, 1023, 1061, 1064, 1081, 1082 and 1083 CANNOT be lawfully used by the general public in U.S.A. waters.

22.2 GX1850GPS/E and GX1800GPS/E

CH	TX (MHz)	RX (MHz)	SIMPLEX/DUPLEX	LOW PWR	CHANNEL USE	
					All countries (except Germany)	Germany
01	156.050	160.650	DUPLEX	–	TELEPHONE	NAUTIK
02	156.100	160.700	DUPLEX	–	TELEPHONE	NAUTIK
03	156.150	160.750	DUPLEX	–	TELEPHONE	NAUTIK
04	156.200	160.800	DUPLEX	–	INTL	NAUTIK
05	156.250	160.850	DUPLEX	–	INTL	NAUTIK
06	156.300		SIMPLEX	LOW*4	SAFETY	SHIP-SHIP
07	156.350	160.950	DUPLEX	–	INTL	NAUTIK
08	156.400		SIMPLEX	LOW*4	COMMERCIAL	SHIP-SHIP
09	156.450		SIMPLEX	–	CALLING	NAUTIK
10	156.500		SIMPLEX	LOW*4	COMMERCIAL	SHIP-SHIP
11	156.550		SIMPLEX	LOW*4	VTS	SHIP-PORT
12	156.600		SIMPLEX	LOW*4	VTS	SHIP-PORT
13	156.650		SIMPLEX	LOW*4	BRG/BRG	SHIP-SHIP
14	156.700		SIMPLEX	LOW*4	VTS	SHIP-PORT
15	156.750		SIMPLEX	LOW	COMMERCIAL	ON-BOARD
16	156.800		SIMPLEX	–	DISTRESS	
17	156.850		SIMPLEX	LOW	SAR	ON-BOARD
18	156.900	161.500	DUPLEX	–	INTL	NAUTIK
19	156.950	161.550	DUPLEX	–	INTL	NAUTIK
1019	156.950		SIMPLEX	–	–	–
2019	161.550		SIMPLEX	–	–	–
20	157.000	161.600	DUPLEX	LOW*6	PORT OPR	NAUTIK
1020	157.000		SIMPLEX	–	–	–
2020	161.600		SIMPLEX	–	–	–
21	157.050	161.650	DUPLEX	–	INTL	NAUTIK
22	157.100	161.700	DUPLEX	–	INTL	NAUTIK
23	157.150	161.750	DUPLEX	–	INTL	
24	157.200	161.800	DUPLEX	–	TELEPHONE	
25	157.250	161.850	DUPLEX	–	TELEPHONE	
26	157.300	161.900	DUPLEX	–	TELEPHONE	
27	157.350	161.950	DUPLEX	–	TELEPHONE	
28	157.400	162.000	DUPLEX	–	TELEPHONE	
31*1	157.550	162.150	DUPLEX	LOW	NED JACHTHAV	–
37*2	157.850		SIMPLEX	LOW	YACHTING UK	–
60	156.025	160.625	DUPLEX	–	TELEPHONE	NAUTIK
61	156.075	160.675	DUPLEX	–	INTL	NAUTIK
62	156.125	160.725	DUPLEX	–	INTL	NAUTIK
63	156.175	160.775	DUPLEX	–	INTL	NAUTIK
64	156.225	160.825	DUPLEX	–	TELEPHONE	NAUTIK
65	156.275	160.875	DUPLEX	–	INTL	NAUTIK
66	156.325	160.925	DUPLEX	–	INTL	NAUTIK
67	156.375		SIMPLEX	–	BRG/BRG	NAUTIK
68	156.425		SIMPLEX	–	SHIP-SHIP	
69	156.475		SIMPLEX	–	PLEASURE	
70	–	156.525	SIMPLEX	–	DSC	
71	156.575		SIMPLEX	LOW*4	PLEASURE	SHIP-PORT
72	156.625		SIMPLEX	LOW*4	SHIP-SHIP	
73	156.675		SIMPLEX	–	PORT OPR	NAUTIK
74	156.725		SIMPLEX	LOW*4	PORT OPR	SHIP-PORT
75	156.775		SIMPLEX	LOW	–	SHIP-PORT
76	156.825		SIMPLEX	LOW	–	NAUTIK

CH	TX (MHz)	RX (MHz)	SIMPLEX/DUPLEX	LOW PWR	CHANNEL USE	
					All countries (except Germany)	Germany
77	156.875		SIMPLEX	LOW*4	PORT OPR	SHIP-SHIP
78	156.925	161.525	DUPLEX	–	INTL	NAUTIK
1078	156.925		SIMPLEX	–	–	–
2078	161.525		SIMPLEX	–	–	–
79	156.975	161.575	DUPLEX	–	INTL	NAUTIK
1079	156.975		SIMPLEX	–	–	–
2079	161.575		SIMPLEX	–	–	–
80	157.025	161.625	DUPLEX	–	INTL	NAUTIK
81	157.075	161.675	DUPLEX	–	INTL	NAUTIK
82	157.125	161.725	DUPLEX	–	INTL	TELEPHONE
83	157.175	161.775	DUPLEX	–	INTL	TELEPHONE
84	157.225	161.825	DUPLEX	–	TELEPHONE	
85	157.275	161.875	DUPLEX	–	TELEPHONE	
86	157.325	161.925	DUPLEX	–	TELEPHONE	
87	157.375		SIMPLEX	–	PORT OPR	
88	157.425		SIMPLEX	–	PORT OPR	
M*3	157.850		SIMPLEX	–	YACHTING UK	–
M2*3	161.425		SIMPLEX	–	YACHTING UK	–
L1*5	155.500		SIMPLEX	–	PLEASURE	–
L2*5	155.525		SIMPLEX	–	PLEASURE	–
L3*5	155.650		SIMPLEX	–	PLEASURE	–
F1*5	155.625		SIMPLEX	–	FISHING	–
F2*5	155.775		SIMPLEX	–	FISHING	–
F3*5	155.825		SIMPLEX	–	FISHING	–

***NOTE**:* Country Channel assignment are different depending on the region.

1: Channel 31 is assigned to only BELGIUM and NETHERLAND.
2: Channel 37 is assigned to only NETHERLAND.
3: Channel M and M2 are assigned to only UNITED KINGDOM.
4: LOW Power setting for BELGIUM, NETHERLAND and GERMANY.
5: Channel L1, L2, L3, F1, F2 and F3 are assigned to only SWEDEN.
6: LOW Power setting for GERMANY.

23 SPECIFICATIONS

Performance specifications are nominal, unless otherwise indicated, and are subject to change without notice. Measured in accordance with TIA/EIA-603.

●GENERAL

Channels ..... All International, USA and Canadian*
*(Depending on the region setting)
Normal Input Voltage ..... 13.8 V DC
Operating Voltage Range ..... 11 V to 16.5 V
Current Drain
- Standby..... 0.45 A
- Receiver (at Maximum AF Output) ..... 0.8 A
- Transmit ..... 5.0 A (Hi), 1.0 A (Lo)

DSC Transmitted Call Log 24
DSC Distress Call Log 27
DSC Received Call Log 64
Individual Directory 100
Group Directory 32
Waypoint Directory 250
Route Directory 20
Display Type ..... 2.6” x 1.4” (66 x 36 mm)
Full Dot Matrix (222 x 122 pixels)
Dimensions (W x H x D) ..... 5.9” x 3.4” x 3.3” (150 x 85 x 82 mm)
Flush-Mount Dimensions (W x H) ..... 5.4” x 2.8” (138 x 73 mm)
Weight ..... 2.1 lbs (940 g)

●TRANSMITTER

Frequency Range ..... 156.025 MHz to 161.600 MHz (INTERNATIONAL)
RF Output Power ..... 25 W (Hi), 1 W (Lo)
Conducted Spurious Emissions ..... Less than −80 dBc (Hi), −66 dBc (Lo)
Audio Response ..... within +1/−3dB of a 6 dB/Octave
pre-emphasis characteristic at 300 to 3000 Hz
Audio Distortion ..... Less than 5 %
Modulation ..... 16K0G3E (for Voice), 16K0G2B (for DSC)
Frequency Stability ..... ±0.0003 % (–4 °F to +140 °F [−20 °C to +60 °C])
FM Hum and Noise ..... 50 dB

●RECEIVER (for Voice and DSC)

Frequency Range ..... 156.050 MHz to 163.275 MHz
Sensitivity
- 20 dB Quieting ..... 0.35 µV
- 12 dB SINAD ..... 0.30 µV
- Squelch Sensitivity (Threshold) ..... 0.13 µV

Modulation Acceptance Bandwidth ..... ±7.5 kHz
Selectivity (Typical)
- Spurious and Image Rejection ..... 75 dB for Voice (75 dB for DSC)
- Intermodulation and Rejection ..... 75 dB for Voice (70 dB for DSC)

Audio Output ..... 4.5 W (at 8 ohms external speaker output)

Audio Response ..... within +1/–3dB of a 6 dB/Octave de-emphasis characteristic at 300 to 3000 Hz
Frequency Stability ..... ±0.0003 % (–20 °C to +60 °C)
Channel Spacing ..... 25 kHz
DSC Format ..... ITU-R M.493-13

●INTERNAL GPS RECEIVER (GX1850GPS, GX1850GPS/E, GX1800GPS and GX1800GPS/E only)

Receiver Channels ..... 66 Channels
Sensitivity .....Less than –147 dBm
Time to First Fix ..... 1 minute typical (@Cold Start)
5 seconds typical (@ Hot Start)
Geodetic Datum WGS84

NMEA 0183 INPUT/OUTPUT Sentences

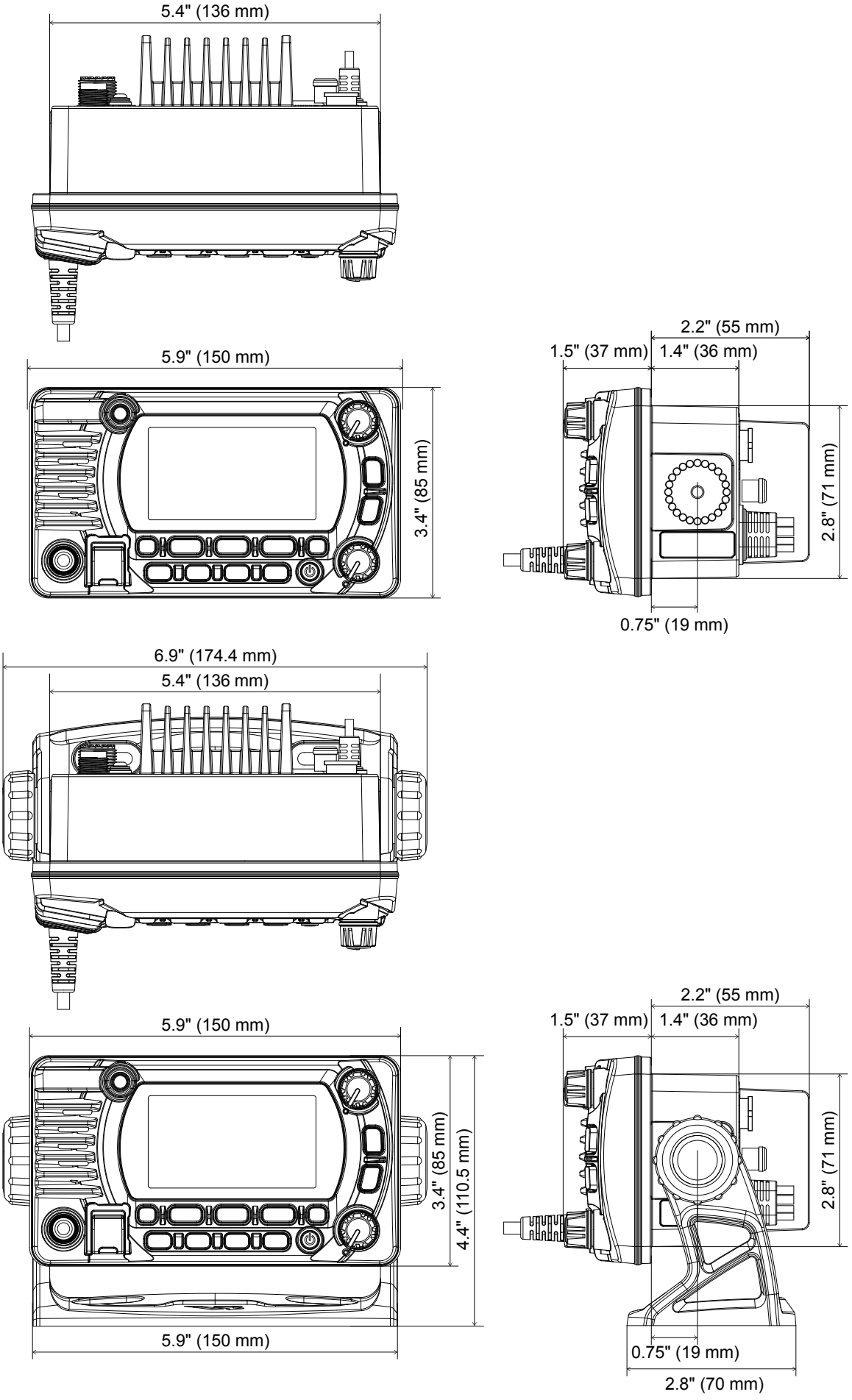
4800 Baud selected:

NMEA 0183 Input (4800 baud) ..... GGA, GLL, GNS, RMC, GSA, & GSV
NMEA 0183 Output (4800 baud) ..... DSC, DSE, GGA, GLL, GNS, RMC, GSA & GSV

38400 Baud selected:

NMEA 0183-HS Input (38400 baud) ..... GGA, GLL, GNS, RMC, GSA, & GSV
NMEA 0183-HS Output (38400 baud) ..... DSC, DSE, GGA, GLL, GNS, RMC, GSA, GSV VDM

23.1 DIMENSIONS



24 FCC RADIO LICENSE INFORMATION

Standard Horizon radios comply with the Federal Communication Commission (FCC) requirements that regulate the Maritime Radio Service.

24.1 STATION LICENSE

An FCC ship station license is no longer required for any vessel traveling in U.S. waters (except Hawaii) which is under 20 meters in length. However, any vessel required to carry a marine radio on an international voyage, carrying a HF single side band radiotelephone or marine satellite terminal is required to have a ship station license. FCC license forms, including applications for ship (605) and land station licenses can be downloaded via the Internet at https://www.fcc.gov/fcc-form-605. To obtain a form from the FCC, call (888) 225-5322.

24.2 RADIO CALL SIGN

Currently the FCC does not require recreational boaters to have a Ship Radio Station License. The USCG recommends the boats registration number and the state to be used when calling another vessel.

24.3 CANADIAN SHIP STATION LICENSING

Please click on the following link for licensing information:
http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/h_sf01775.html

The following link lists several Branches/Offices regarding licensing. Licensing depends on the region of operations.
http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf01742.html

24.4 FCC / IC INFORMATION

The following data pertaining to the transceiver is necessary to fill out the license application.

FCC Type Accepted ..... FCC Part 80
IC Type Accepted RSS-182
Output Power ..... 1 Watt (low) and 25 Watts (high)
Emission 16K0G3E, 16K0G2B
Frequency Range ..... 156.025 to 163.275 MHz
FCC ID K6630643X3D
IC 511B-30643X3D

25 FCC NOTICE

NOTICE

Unauthorized changes or modifications to this equipment may void compliance with FCC Rules. Any change or modification must be approved in writing by STANDARD HORIZON.

NOTICE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

WARNING

It is a violation of the rules of the Federal Communications Commission to input an MMSI that has not been properly assigned to the end user, or to otherwise input any inaccurate data in this device.

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS: (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.

Changes or modifications to this device not expressly approved by YAESU U.S.A. could void the User's authorization to operate this device.

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée quivalente (p.i.r.e.) ne dépassepas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

STANDARD HORIZON Limited Warranty

Limited Warranty is valid only in the country/region where this product was originally purchased.

On-line Warranty Registration:

Thank you for buying STANDARD HORIZON products! We are confident your new radio will serve your needs for many years! Please register your product at **www.standardhorizon.com** - Owner's Corner

Warranty Terms:

Subject to the Limitations of the Warranty and the Warranty Procedures described below, YAESU MUSEN hereby warrants this product to be free of defects in materials and workmanship in normal use during the "Warranty Period." (the "Limited Warranty").

Limitations of Warranty:

A. YAESU MUSEN is not liable for any express warranties except the Limited Warranty described above.
B. The Limited Warranty is extended only to the original end-use purchaser or the person receiving this product as a gift, and shall not be extended to any other person or transferee.
C. Unless a different warranty period is stated with this YAESU product, the Warranty Period is three years from the date of retail purchase by the original end-use purchaser.
D. The Limited Warranty is valid only in the country/region where this product was originally purchased.
E. During the Warranty Period, YAESU MUSEN will, at its sole option, repair or replace (using new or refurbished replacement parts) any defective parts within a reasonable period of time and free of charge.
F. The Limited Warranty does not cover shipping cost (including transportation and insurance) from you to us, or any import fees, duties or taxes.
G. The Limited Warranty does not cover any impairment caused by tampering, misuse, failure to follow instructions supplied with the product, unauthorized modifications, or damage to this product for any reasons, such as: accident; excess moisture; lightning; power surges; connection to improper voltage supply; damage caused by inadequate packing or shipping procedures; loss of, damage to or corruption of stored data; product modification to enable operation in another country/purpose other than the country/purpose for which it was designed, manufactured, approved and/or authorized; or the repair of products damaged by these modifications.
H. The Limited Warranty applies only to the product as it existed at the time of the original purchase, by the original retail purchaser, and shall not preclude YAESU MUSEN from later making any changes in design, adding to, or otherwise improving subsequent versions of this product, or impose upon YAESU MUSEN any obligation to modify or alter this product to conform to such changes, or improvements.
I. YAESU MUSEN assumes no responsibility for any consequential damages caused by, or arising out of, any such defect in materials or workmanship.
J. TO THE FULLEST EXTENT PERMITTED BY LAW, YAESU MUSEN SHALL NOT BE RESPONSIBLE FOR ANY IMPLIED WARRANTY WITH RESPECT TO THIS PRODUCT.
K. If the original retail purchaser timely complies with the Warranty Procedures described below, and YAESU MUSEN elects to send the purchaser a replacement product rather than repair the "original product", then the Limited Warranty shall apply to the replacement product only for the remainder of the original product Warranty Period.
L. Warranty statutes vary from state to state, or country to country, so some of the above limitations may not apply to your location.

Warranty Procedures:

1. To find the Authorized STANDARD HORIZON Service Center in your country/region, visit www.standardhorizon.com. Contact the STANDARD HORIZON Service Center for specific return and shipping instructions, or contact an authorized STANDARD HORIZON dealer/distributor from whom the product was originally purchased.
2. Include proof of original purchase from an authorized STANDARD HORIZON dealer/distributor, and ship the product, freight prepaid, to the address provided by the STANDARD HORIZON Service Center in your country/ region.
3. Upon receipt of this product, returned in accordance with the procedures described above, by the STANDARD HORIZON Authorized Service Center, all reasonable efforts will be expended by YAESU MUSEN to cause this product to conform to its original specifications. YAESU MUSEN will return the repaired product (or a replacement product) free of charge to the original purchaser. The decision to repair or replace this product is the sole discretion of YAESU MUSEN.

Other conditions:

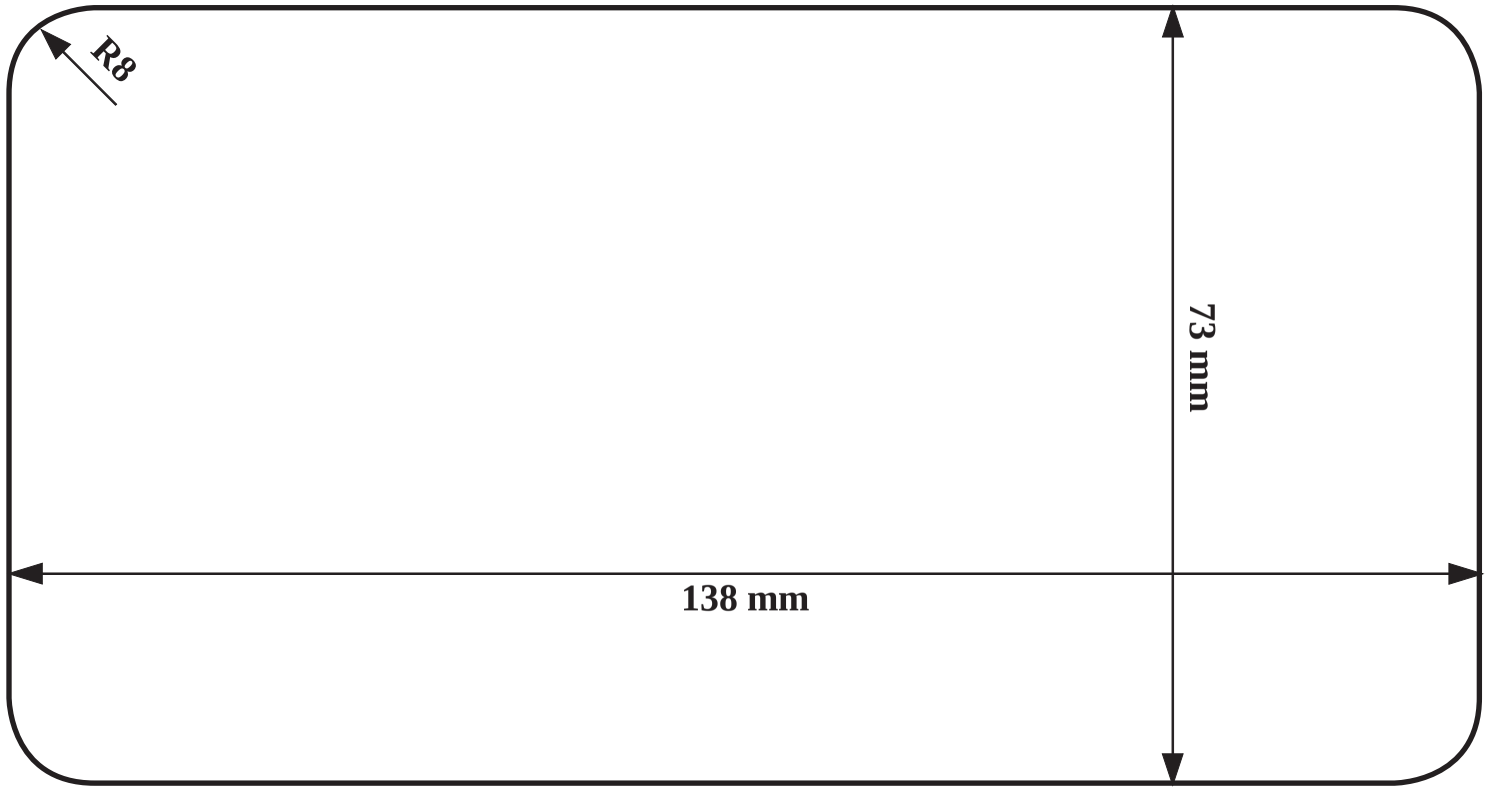
YAESU MUSEN'S MAXIMUM LIABILITY SHALL NOT EXCEED THE ACTUAL PURCHASE PRICE PAID FOR THE PRODUCT. IN NO EVENT SHALL YAESU MUSEN BE LIABLE FOR LOSS OF, DAMAGE TO OR CORRUPTION OF STORED DATA, OR FOR SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR INDIRECT DAMAGES, HOW EVER CAUSED; INCLUDING WITHOUT LIMITATION TO THE REPLACEMENT OF EQUIPMENT AND PROPERTY, AND ANY COSTS OF RECOVERING, PROGRAMMING OR REPRODUCING ANY PROGRAM OR DATA STORED IN OR USED WITH THE YAESU PRODUCT.

Some Countries in Europe and some States of the USA do not allow the exclusion or limitation of incidental or consequential damages, or a limitation on how long an implied warranty lasts, so the above limitation or exclusions may not apply. This warranty provides specific rights, there may be other rights available which may vary between countries in Europe or from state to state within the USA.

This Limited Warranty is void if the label bearing the serial number has been removed or defaced.

cut here

TEMPLATE for the GX1850/GX1800 series



Use this template to mark the location where the rectangular hole for the flush mount is to be cut.

EU Declaration of Conformity

We, Yaesu Musen Co. Ltd of Tokyo, Japan, hereby declare that this radio equipment GX1850GPS/E and GX1800GPS/E is in full compliance with EU Radio Equipment Directive 2014/53/EU. The full text of the Declaration of Conformity for this product is available to view at ://www.yaesu.com/jp/red

ATTENTION – Conditions of usage

This transceiver works on frequencies that are regulated and not permitted to be used without authorisation in the EU countries shown in this table. Users of this equipment should check with their local spectrum management authority for licensing conditions applicable for this equipment.

AT	BE	BG	CY	CZ	DE
DK	ES	EE	FI	FR	UK
GR	HR	HU	IE	IT	LT
LU	LV	MT	NL	PL	PT
RO	SK	SI	SE	CH	IS
LI	NO	–	–	–	–

Disposal of Electronic and Electrical Equipment

Products with the symbol (crossed-out wheeled bin) cannot be disposed as household waste.
Electronic and Electrical Equipment should be recycled at a facility capable of handling these items and their waste by-products.
Please contact a local equipment supplier representative or service center for information about the waste collection system in your country.

STANDARD HORIZON

Nothing takes to water like Standard Horizon

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