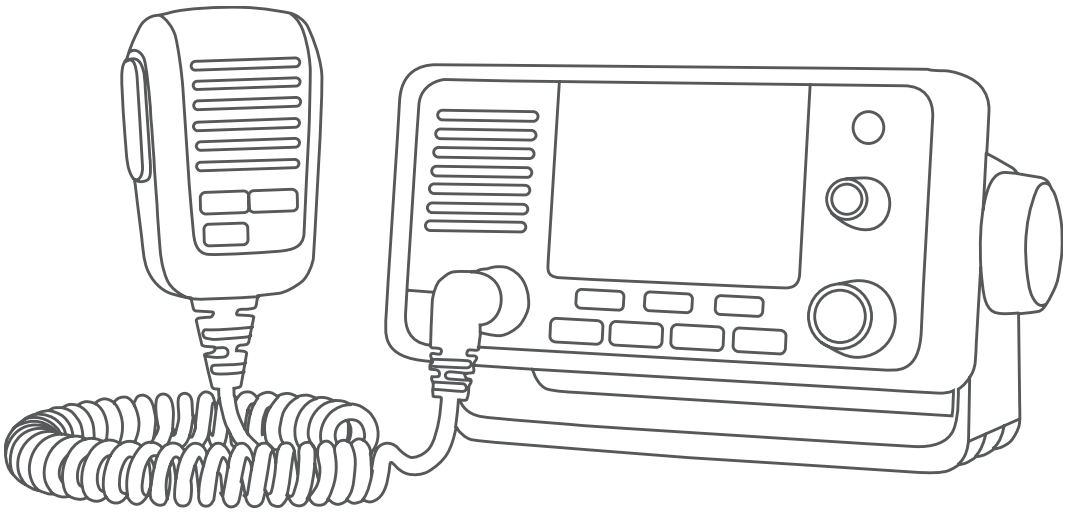
GARMIN®



VHF 115/215 MARINE RADIO

Owner's Manual

Table of Contents

Introduction

⚠ WARNING

See the *Important Safety and Product Information* guide in the product box for product warnings and other important information.

Radio Overview

VHF 115/115i

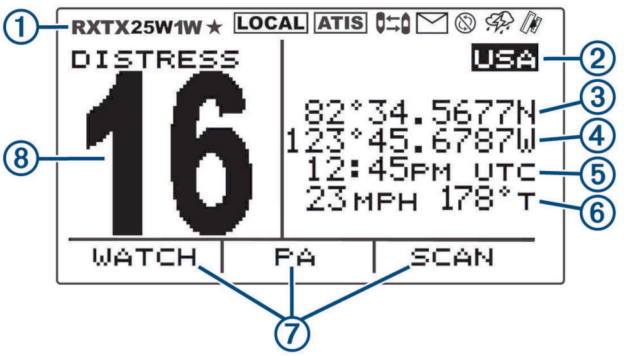
VHF 215/215i

Item	Key	Description
①	DISTRESS	Lift the door and press to send a DSC distress call with a programmed MMSI number (*Entering Your MMSI Number*, page 11).
②	VOL/SQ	Press the dial to switch between volume or squelch. Rotate the dial to adjust the volume or squelch level.
③	▬	Select the key that corresponds to the on-screen item to select the item.
④	SELECT	On the home screen, rotate the dial to change the channel. On the home screen, press the dial to toggle weather channels (*NOAA® Weather Broadcasts and Alerts*, page 10). Rotate the dial to highlight an item in a list. Press the dial to select an item.
	PWR North America: 16/9 International: 16+	Hold to turn the radio on and off. Press to toggle between preset channels.
	DSC	Select to view a menu of DSC options.
	HI/LO	Select to change the transmission mode and receiving sensitivity.
	CLEAR	Select to return to the previous menu option. Select to cancel or mute an incoming DSC call.
	MENU	From the home screen, select to view configuration options. From a menu, select to return to the home screen.

Handset Overview

①	PTT	Hold to broadcast.
②	▲ or ▼	Select to change the channel on the radio.
③	North America: 16/9 International: 16+	Select to toggle between preset channels.

Home Screen



1	Radio system status, settings, and alerts
2	International, Canadian, or USA frequency band
3	Latitude[1]
4	Longitude [1]
5	Time[1]
6	Speed over ground (SOG) or course over ground (COG) [2]
7	Soft-key functions change depending on your current activity
8	Working channel

[1] The latitude, longitude, and time appear when the radio has a GPS signal acquired. You can enter data manually when the radio does not have a GPS signal.
[2] The SOG and COG appear when the radio has a GPS signal acquired, and the option is enabled in the menu (*Number Settings*, page 22).

System Status Icons

Icon	Status
RX	Receiving an incoming signal
TX	Transmitting
25W	Transmitting at 25 W
1W	Transmitting at 1 W
★	Saved channel
LOCAL	Local receiver mode, often used in areas with radio frequency interference (harbors)
ATIS	ATIS enabled
	Position tracking enabled
	Auto channel changing disabled
	Incoming or missed DSC call
	Weather alerts enabled
	GPS signal acquired

Basic Operation

Turning On and Off the Device

Hold **PWR**.

TIP: You can set the device to turn on automatically (*System Settings*, page 22).

Adjusting the Radio Volume

1. Set the squelch level to **MIN** before you adjust the radio volume (optional).
2. Turn the **VOL/SQ** dial to increase or decrease the radio volume.

Adjusting the Squelch Level

You can adjust the sensitivity level of the squelch to filter out background noise. When you increase the squelch level, you hear fewer weak background signals when you are receiving.

1. Press the **VOL/SQ** dial.
   SQUELCH appears on the screen.
2. Turn the **VOL/SQ** dial counter-clockwise until you hear audio.
3. Turn the **VOL/SQ** dial clockwise until there is no background noise.

Selecting the Frequency Band

You can switch between the USA, International, or Canadian frequency bands (*Channel Lists*, page 24).

NOTE: The VHF 115i/215i radio may need a software update to access the USA and Canada bands. Visit garmin.com/support/software/marine for information on updating the software on your radio.

1 Select **MENU** > **CHANNEL** > **FREQUENCY BAND**.
2 Select a frequency band.

Selecting a Channel

You can select an International, Canadian, or USA channel (*Selecting the Frequency Band*, page 5).

Select an option:

- To select a channel on the device, turn the **SELECT** dial.
- To select a channel on the handset, select ▲ or ▼.

Transmitting with the Radio

1 Select an appropriate channel.
2 Verify that the channel is clear.

NOTE: You cannot obstruct the communications of other people due to Federal Communications Commission (FCC) and international guidelines.

3 Hold **PTT** on the handset.

TX appears at the top of the screen.

4 Speak into the handset.

NOTE: Five minutes is the maximum time allowed for transmission. After five minutes of transmitting, PTT is disabled until you release PTT.

5 Release **PTT**.

Calling a GHS™ II Handset

If you connect a GHS 11 handset (not included) to your radio, you can use the intercom feature to communicate between the radio and the GHS 11 handset.

NOTE: The intercom feature is available only on VHF 215/215i radio models.

1 Select **PA** > **INTERCM**.
2 Rotate the dial on the handset to select an intercom station to call, and select **SELECT**.
3 Hold **PTT** and speak into the handset.

To end the call, select EXIT.

Scanning and Saving Channels

Scanning All Channels

When you scan channels, the radio searches for channels that are broadcasting. When a channel is broadcasting, the radio pauses on that channel until the broadcast stops. After four seconds of inactivity on a channel, the radio resumes scanning.

NOTE: When you turn on ATIS (*Automatic Transmitter Identification System*, page 20), the radio does not scan or save channels.

1. Select **SCAN** > **ALL**.
2. Select an option:
   - To exclude the currently active channel from subsequent passes and resume scanning, select **SKIP**.
   - To scan channel 16 each time another channel is scanned, select **+CH16**.
     For example, the radio scans channel 21, channel 16, channel 22, channel 16, and so on.
     +CH16 appears on the device screen.
   - To scan channel 16 in its usual order, select **-CH16**.
     For example, the radio scans channel 14, channel 15, channel 16, channel 17, and so on.
   - To end the scan, select **EXIT**.
     The radio stops scanning and tunes to the last used, active channel.

Saving a Channel

You can save any channel except the weather (WX) channels. You can save an unlimited number of channels.

1. Select **SCAN**.
2. Turn the **SELECT** dial until you find a channel you want to save.
3. Select **SAV CH**.
   ★ appears above a saved channel.

Removing a Saved Channel

1. Select **SCAN**.
2. Turn the **SELECT** dial until you find a saved channel.
   NOTE: A saved channel has ★ above it.
3. Select **SAV CH**.

Scanning Saved Channels

You can scan only the channels you have saved. When a saved channel is broadcasting, the radio pauses on that channel until the broadcast stops. After four seconds of inactivity on a channel, the radio resumes scanning.

NOTE: When you turn on ATIS (*Automatic Transmitter Identification System*, page 20), the radio does not scan or save channels.

1. Select **SCAN** > **SAVED**.
2. Select an option:
   - To exclude the currently active channel from subsequent passes and resume scanning, select **SKIP**.
   - To scan channel 16 each time another saved channel is scanned, select **+CH16**.
     For example, the radio scans saved channel 21, channel 16, saved channel 25, channel 16, and so on.
     +CH16 appears on the device screen.
   - To stop scanning channel 16, select **-CH16**.
     For example, the radio scans saved channel 21, saved channel 25, and so on.
   - To end the scan, select **EXIT**.
     The radio stops scanning and tunes to the last used active channel.

Multiple Channel Monitoring

Before you can monitor multiple channels, you must turn off ATIS (*Automatic Transmitter Identification System*, page 20).

You can monitor priority channels and the currently selected channel for broadcasting activity. Channel 16 is the first-priority channel on your radio. Channel 9 is the default second-priority channel. You can program a different channel as your second-priority channel (*Selecting a Different Second-Priority Channel*, page 7).

NOTE: After responding to a call or transmitting on the currently selected channel, you must repeat the steps to resume monitoring multiple channels.

Monitoring Two Channels

You can monitor your current channel and channel 16 at the same time.

Select **WATCH** > **DUAL**.

DUAL WATCH and the channels you are monitoring appear on the screen. For example, DUAL WATCH CH:, and 16 + 9.

Monitoring Three Channels

You can monitor your current channel, channel 16, and your second-priority channel at the same time.

Select **WATCH** > **TRI**.

TRI WATCH, your current channel, channel 16, and your second-priority channel appear on the screen. For example, TRI WATCH CH:, and 75 + 16 + 9.

Selecting a Different Second-Priority Channel

You can select a channel other than channel 9 as your second-priority channel.

1. Select **MENU** > **CHANNEL** > **2ND PRIORITY**.
2. Select an option:
   - On the radio, turn the **SELECT** dial to the preferred channel.
   - On the handset, select ▲ or ▼ to find the preferred channel.
3. Select **OK**.

Switching to Priority Channels

You can quickly switch between your current working channel and a priority channel. When you change to a priority channel, the transmit power is set to high (25 W) automatically, and when you change back to your current channel, the transmit-power setting is restored.

On North American models, you can quickly switch between channel 16, your second-priority channel, and your original channel using the 16/9 key.

On International models, you can quickly switch between channel 16 and your original channel using the 16+ key.

1. To switch from your current channel to channel 16, select **16/9** or **16+**.

   The transmit power changes to high (25 W) automatically. You can select **HI/LO** > **1W** to change the transmit power to low (1 W).
2. On North American models, select **16/9** to switch to your second-priority channel.
3. Select **16/9** or **16+** to return to your previous channel and transmit-power setting.

Setting the Receiving Sensitivity

You can control the receiving sensitivity of the radio. When you have noise in high-traffic areas or areas with electromagnetic interference, such as near cell-phone towers, you can set the receiving sensitivity to LOC to decrease receiver sensitivity. In remote areas and on open water, you can set the receiving sensitivity to DIST to ensure that you use the maximum range of the receiver.

1 Select **HI/LO**.

2 Select an option:

- Select **LOC** to enable local sensitivity.
- Select **DIST** to enable distant sensitivity.

Switching Between I W and 25 W Transmitting Modes

You can control the transmitting power of the radio. Low (1 W) is used for local transmissions, and high (25 W) is used for distance and distress transmissions.

When two signals broadcast on the same frequency, a VHF radio receives only the stronger of the two signals. You should transmit calls other than distress calls using the lowest power setting that allows you to communicate, to reduce the possibility that your transmissions interfere with the transmissions of others.

In the USA channel band, transmissions on channels 13, 17, 67, and 77 must be low (1 W) by default.

In the Canadian channel band, transmissions on channels 13, 15, 17, 20, 1066, 67, 75, 76, and 77 must be low (1 W) by default.

In the International channel band, transmissions on channels 15, 17, 75, and 76 must be low (1 W).

NOTE: In the USA and Canadian channel bands, you can bypass the power setting for these channels temporarily during transmission (*Bypassing the Low Transmission Power Setting*, page 8). In the International channel band, the radio does not permit transmissions on these channels to be changed to high (25 W).

1 Select **HI/LO**.

2 Select **1W** or **25W**.

3 Select **OK**.

Bypassing the Low Transmission Power Setting

In the USA and Canadian frequency bands, transmissions on select channels are required to be low-power (1 W) by default, because they are intended for intership (bridge-to-bridge) communication (*Switching Between 1 W and 25 W Transmitting Modes*, page 8). If other radios cannot receive these channels due to the low power setting, you can bypass the default restriction during transmission.

NOTE: In the International channel band, the radio does not permit transmissions on these select channels to be changed to high (25 W).

1 From a USA or Canadian channel set to low power by default, such as 13, 17, or 77, hold **PTT**.

2 While transmitting, select **25W**.

Using the Hailer

Before you can use the hailer function, you must provide and install a hailer horn on your boat deck or tower (optional). For more information, see the *Installation Instructions*.

The hailer allows you to make on-boat or ship-to-shore announcements, and allows two-way communications between connected radios. You can address the ship using the radio or handset, and sounds received through the horn can be heard through the radio speaker. For vessels with enclosed cabins, the hailer allows you to hear sounds from the deck.

NOTE: The hailer is available only on the VHF 215/215i radio models.

NOTE: When the radio is in hailer mode, it does not receive broadcasts from the currently active channel.

1 Select **PA** > **HAILER**.

Sounds received through the horn are heard through the radio speaker.

2 Hold **PTT**.

3 Select an option:

- To make an announcement, speak into the handset.
- To adjust the volume of the hailer broadcast, turn the **SELECT** dial on the radio, or select ▲ or ▼ on the handset.

4 Release **PTT** to stop broadcasting and listen for broadcasts from other connected radios on the ship.

Foghorn

Before you can use the foghorn, you must provide and install a hailer horn (optional) on the deck or tower of your boat. For more information, see the *Installation Instructions*.

The foghorn is part of the public address system of your radio. You can sound the foghorn through a hailer horn or an external speaker. Your radio can sound the horn automatically using standard patterns, or you can sound the horn manually. When you manually operate the foghorn, sounds received through the horn can be heard through the radio speaker between soundings.

NOTE: The foghorn is available only on VHF 215/215i radio models.

Sounding the Foghorn Automatically

1 Select **PA** > **FOG** > **AUTO**.

2 Select a foghorn-type option.

The radio alternates between sounding the pattern of tones or rings and receiving radio broadcasts.

3 Turn the **SELECT** dial to adjust the volume of the horn (optional).

Sounding the Foghorn Manually

NOTE: When you sound the horn manually, the radio does not receive broadcasts between horn soundings.

1 Select **PA** > **FOG** > **MANUAL**.

Sounds are received through the horn and heard through the radio speaker.

2 Hold **PTT**.

NOTE: The horn stops sounding when you release PTT.

3 Turn the **SELECT** dial to adjust the volume of the horn (optional).

Adjusting the Sound Frequency of the Foghorn

You can increase or decrease the sound frequency of the foghorn. The pitch of the tone rises with an increase in frequency, and falls with a decrease in frequency. The minimum setting is 200 Hz, and the maximum setting is 850 Hz. The default setting is 350 Hz. Regulations dictate the correct frequency of foghorns, which correlate with the size of your vessel.

1 Select **MENU** > **SYSTEM** > **FOG FREQUENCY**.

2 Turn the **SELECT** dial to adjust the frequency in 50 Hz increments.

3 Select **ACCEPT**.

Entering Text

You may need to enter a name, a number, or other text on the radio.

1. From a number or text field, turn the **SELECT** dial to change the number, letter, or character.
2. Press the **SELECT** dial to accept the number, letter, or character and move to the next space in the sequence.
3. Repeat this process for each number, letter, or character.
   NOTE: You can select ⬅ to return to the previous entry in the sequence.
4. Select **ACCEPT**.

NOAA® Weather Broadcasts and Alerts

NOTE: This feature is not available on all radio models.

NOAA weather broadcasts on the weather (WX) channels are available only in the USA and certain regions in Canada.

Compatible radio models are programmed with 10 WX channels to monitor weather broadcasts from the National Oceanic and Atmospheric Organization (NOAA). WX channels are listen-only channels that broadcast in a continuous loop and are updated regularly. NOAA broadcasting information is regional and relevant to your broadcast area.

Tuning Weather Broadcasts

1. From the home screen, press the **SELECT** dial.
   WX appears on the screen.
2. Turn the **SELECT** dial to change the weather channel.

Enabling and Disabling Weather Alerts

You can enable weather (WX) alerts to sound when you are using standard radio channels.

1. When tuning weather broadcasts, select **ALERT** to enable or disable weather alerts.
   ⛈ indicates that weather alerts are enabled.
2. Select **EXIT**.
   The radio returns to normal operation while continuing to monitor weather alerts.

Digital Selective Calling

NOTE: Before you can use DSC capabilities, you must enter a Mobile Marine Safety Identity (MMSI) number (*Entering Your MMSI Number*, page 11). An MMSI number identifies each DSC radio, like a telephone number.

Digital Selective Calling (DSC) is a key component of the Global Maritime Distress and Safety System (GMDSS). DSC enables VHF radios to place and receive digital calls directly with other vessels and shore stations, including the USA and Canadian Coast Guards. Your radio includes full Class-D DSC capabilities.

Your latitude, longitude, and the current time can be transmitted when you send a distress call or other type of DSC call. If your radio is installed in a location with poor GPS reception, you can connect an external GPS antenna and turn off the internal GPS antenna (*System Settings*, page 22). Your radio can also use GPS position data received from another device over NMEA 2000® or NMEA® 0183.

Channel 70 is reserved exclusively for DSC calls, and your device uses a dedicated receiver to maintain a constant watch on Channel 70. You do not need to change the channel to make a DSC call. Your device changes to Channel 70 automatically to transmit a DSC call. Your radio sends the DSC data over Channel 70 in less than one second, and then tunes to an appropriate channel for voice communications.

The ✉ icon appears on the device screen when you have an incoming or missed DSC call.

NOTE: The device disables DSC automatically when you turn on ATIS (*Automatic Transmitter Identification System*, page 20).

Entering Your MMSI Number

NOTICE

You can enter your MMSI number only once. If you must change your MMSI number after entering it, you must take your radio to your Garmin® dealer for reprogramming.

The Mobile Marine Safety Identity (MMSI) number is a nine-digit code that acts as a DSC self-identification number, and it is required to use the DSC capabilities of your radio. You can obtain an MMSI number from the telecommunications authority or ship registry for your country. In the USA, you can obtain an MMSI number from these sources:

- Federal Communications Commission (FCC): assignments are recognized internationally
- BoatU.S.®, Sea Tow®, or United States Power Squadrons®: assignments are for USA waters only.

1. Select **MENU** > **DSC** > **MY MMSI**.
2. Enter your MMSI number (*Entering Text*, page 10).
3. Select **ACCEPT**.
   The radio prompts you to confirm your identity.
4. Enter your MMSI number again, and select **ACCEPT**.
   If the MMSI numbers you entered do not match, a message appears.
5. If necessary, select **RETRY**, and enter the number again.

Viewing Your MMSI Number

Select **MENU** > **DSC** > **MY MMSI**.

Distress Calls

When you make a distress call, your call is transmitted to all DSC-capable radios within receiving range. Your current GPS position (latitude and longitude) and the current time are included in the transmission.

NOTE: You should familiarize yourself with the standard distress-call format and protocol to ensure your calls are clear and effective.

Sending an Undesignated Distress Call

When you send an undesignated distress call, the nature of your emergency is not transmitted to the receiving stations. Sending an undesignated distress call is a faster procedure that can save you time during an emergency.

1. Lift the spring-loaded door, and hold **DISTRESS** for at least 3 seconds.
   The radio beeps and counts down the seconds. DISTRESS CALL COUNTING DOWN appears on the screen.
   The radio sounds an alarm, switches to channel 70, and transmits your call on high (25 W) power.
2. Press any key to silence the alarm sound.
   The radio tunes to channel 16 on high (25 W) power.
3. Hold **PTT** on the handset or radio to relay your distress message.
   The radio waits for an acknowledgment (ACK) on channel 70 from a listening station.

Sending a Designated Distress Call

When you send a designated distress call, the nature of your emergency is transmitted to the receiving stations.

1 Lift the spring-loaded door, and press **DISTRESS**.

2 Turn the **SELECT** dial, and select the type of distress call.

TIP: You can select CLEAR to exit the screen without sending a distress call.

3 Hold **DISTRESS** for at least three seconds.

The radio beeps and counts down the seconds. DISTRESS CALL COUNTING DOWN appears on the screen.

The radio sounds an alarm, switches to channel 70, and transmits your call on high (25 W) power.

4 Press any key to silence the alarm sound.

The radio tunes to channel 16 on high (25 W) power.

5 Hold **PTT** on the handset or radio to relay your message.

The radio waits for an acknowledgment (ACK) on channel 70 from a listening station.

Waiting For and Receiving and Acknowledgment for a Distress Call

If the radio does not receive an acknowledgment for a distress call, the radio retransmits the distress call randomly between 3.5 to 4.5 minutes later, and continues to retransmit the distress call at random intervals until the radio receives an acknowledgment.

When the radio receives the acknowledgment, it begins beeping and DISTRSS ACK appears on the screen.

1 Press any key to turn off the beeping.

2 Select ▼ to view additional information.

TIP: If the MMSI of the station transmitting the acknowledgment signal is an entry in your directory, the name associated with the MMSI number appears on the screen. If the MMSI of the station is not in your directory, the MMSI number appears on the screen.

3 Select **ACCEPT**.

Stopping Automatic Retransmission of Distress Calls

Select **CANCEL**.

The radio remains tuned to channel 16.

NOTE: Selecting CANCEL ends the automatic repetition of the call, but does not communicate to other stations that you no longer have an emergency. If you no longer have an emergency, you should revoke the distress call (*Revoking a Distress Call*, page 12).

Revoking a Distress Call

You do not transmit a distress call until you hold DISTRESS for at least three seconds. If you inadvertently make a distress call, or are no longer in distress, you should cancel the call immediately by transmitting a voice message to all stations on channel 16.

1 Select **CANCEL** > **YES**, and wait until **DISTRESS CANCEL HAS BEEN SENT** appears on the screen.

2 Select **OK**.

3 Hold **PTT** on the handset, and transmit an appropriate voice message to cancel the distress call (*Distress Call Cancellation Script*, page 12).

4 Select an option:

- Select **END** to complete the distress-call cancellation and return to normal radio operation.
- Select **RESEND** to resend the distress-call cancellation and start the process again.

Distress Call Cancellation Script

When you revoke a DSC distress call (*Revoking a Distress Call*, page 12), you should transmit an appropriate cancellation message.

For example, "All stations, all stations, all stations, this is _____(vessel name), MMSI number ____, position ____(North or South), ____(West or East). Cancel my distress alert of ____(date and time). This is ____(vessel name), MMSI number ____. Out."

Placing Calls

Placing Individual Calls

1. Select **DSC** > **INDIVIDUAL**.
2. Select an option:
   - To enter the MMSI number manually, select **MANUAL**, enter the MMSI number, and select **ACCEPT**.
   - To select an entry from the directory, select **DIRECTORY**, and select an entry.
   - To select a recent call, select **RECENT CALLS**.
3. Select a channel (*Individual Call or Group Call Channels*, page 13).

   The radio transmits the request with your call.
4. Select **CALL**.

   The radio transmits the call on channel 70, and returns to the previous channel while listening for an acknowledgment on channel 70. After an acknowledgment is received, the radio changes to the channel you selected for the call.

Placing Group Calls

Before you can place a call to a group, you must enter the MMSI number of the group into the directory (*Adding a Group*, page 18).

You can contact a group of specific vessels, such as a sailing club or flotilla, by making a group call.

1. Select **DSC** > **GROUP** > **CALL**.
2. Select a saved group.
3. Select a channel (*Individual Call or Group Call Channels*, page 13).

   The radio transmits the channel request with your call.
4. Select **CALL**.

   The radio transmits the call on channel 70, then changes to the selected channel.

Individual Call or Group Call Channels

When placing an individual or group call, you should select from designated DSC channels. The radio transmits this request with your call.

- USA: channels 6, 8, 9, 10, 13, 17, 67, 68, 69, 71, 72, 73, and 77.
- Canada and International: all USA channels, plus channel 15

DSC channels are limited to channels that are available in all frequency bands. You can select CUSTOM to select a channel that is not listed. If you select a custom channel, the station you are calling may not be able to comply with the specified channel. You should select a channel that is appropriate for communication.

Placing All-Ships Calls

All-ships calls are transmitted to all stations within receiving distance of your radio. You can make two types of all-ships calls. Safety calls broadcast significant navigational or weather-related information. Urgency calls communicate situations about the safety of a vessel or person when danger is not imminent. The captain should discern whether a situation warrants a safety call or an urgency call.

1. Select **DSC** > **ALL SHIPS**.
2. Select **SAFETY** or **URGENCY**.
3. Select a channel (*Individual Call or Group Call Channels*, page 13).

   The radio transmits the channel request with your call.
4. Select **CALL**.

   The radio transmits the call on channel 70, then changes to the selected channel.

Requesting a Vessel's Position

Position data received from stations that respond to position request calls is sent over the NMEA network. You can track the vessels on your Garmin chartplotter.

1. Select **DSC** > **POS. REQUEST**.
2. Select an option:
   - To enter the MMSI number manually, select **MANUAL**, enter the MMSI number, and select **ACCEPT**.
   - To select an entry from the directory, select **DIRECTORY**, and select an entry.
3. Select **CALL**.

   The radio transmits the call on channel 70 and returns to the previous channel. WAITING FOR ACKNOWLEDGE appears on the screen.

Receiving Calls

Receiving Distress Calls and Distress Relay Calls

When receiving a distress call or a distress relay call, DISTRESS or DISTR RELAY, and information about the call, such as MMSI number and the nature of the distress, appear on the radio screen. A distress call is sent from a vessel in need of assistance, and a distress relay call is sent from either another vessel or a station on behalf of a vessel in need of assistance.

The radio sends data related to the call over the NMEA network based on how you configure MMSI filters (*Configuring DSC NMEA Transmissions*, page 22).

NOTE: When a distress call is received, the radio switches to channel 16 automatically after ten seconds.

When a distress call is received, select an option:

- To view additional information about the distress call and switch to channel 16, select ▼.
- To accept the distress call and switch to channel 16, select **OK**.
- To review information about the distress call without switching to channel 16 automatically, select **PAUSE**.
- To ignore the distress call and stay on the current channel, press **CLEAR**.

Receiving All-Ships Urgency and Safety Calls

When you receive an all-ships urgency or safety call, ALL SHIPS appears on the screen, and URGENCY or SAFETY appears as the type of call. If the channel request is for an invalid channel, INVALID CH REQUEST appears on the screen.

NOTE: When an all-ships call is received, the radio switches to the requested channel automatically after ten seconds.

When an urgency or safety call is received, select an option:

- To view additional information about the call and switch to the requested channel, select ▼.
- To accept the call and switch to the requested channel, select **OK**.
- To review information about the call without switching to the requested channel automatically, select **PAUSE**.
- To ignore the call and stay on the current channel, press **CLEAR**.

Receiving Individual Routine Calls

When you receive an individual routine call, INDIVIDUAL appears on the screen, and ROUTINE appears as the type of call. If the channel request is for an invalid channel, INVALID CH REQUEST appears on the screen.

NOTE: When an individual call is received, the radio switches to the requested channel automatically after ten seconds.

When a call is received on a valid channel, select an option:

- To accept the call and switch to the requested channel, select **OK**.
- To review information about the call without switching to the requested channel automatically, select **PAUSE**.
- To ignore the call and stay on the current channel, press **CLEAR**.

Receiving Position Requests

You can configure the radio to reply automatically to incoming position requests, or prompt you to review and approve the incoming requests before replying (*Sending Automatic Replies*, page 19).

When you receive a position request with automatic position replies enabled, SENDING ACKNOWLEDGE appears on the screen, and the radio sends your position automatically. After the position successfully transmits, POSITION SENT appears on the screen.

When you receive a position request with automatic position replies disabled, POS. REQUEST appears on the screen.

When you receive a position request with automatic position replies disabled, select **OK**, and select an option:

- To reply to the position request with your current position, select **OK**.

  If GPS-position or manual-position data is available, the radio transmits your position to the other vessel.
- To ignore the position request, press **CLEAR**.

Receiving Position Calls

When you receive a position call, POS. SEND and the position data appear on the screen.

Select **OK**.

The radio saves the position report in the call log.

Receiving Group Calls

When you receive a group call, GROUP appears on the screen, and the radio prompts you to change to the requested channel. If the channel requested is invalid, INVALID CH REQUEST appears on the screen.

1. Select **OK**.
2. Turn the **SELECT** dial to select the requested channel.
3. Select **OK**.

Position Tracking

When you enable position tracking, the radio uses interval-based position requests to track up to three vessels.

Your radio transmits received position data over the NMEA network, and you can track the vessels using your Garmin chartplotter (*Configuring DSC NMEA Transmissions*, page 22).

Selecting Vessels and Activating Position Tracking

Before you can use position tracking, you must have at least one vessel saved in the directory (*Directory*, page 18).

1. Select **DSC** > **POS. TRACKING** > **ADD ENTRY**.
2. Select the vessels you want to track.

   You can track the position of up to three vessels at one time. If you select a fourth vessel, the radio sounds an error tone, and you must remove a vessel before you can add a new one.
3. Select **BEGIN TRACKING**.

   appears on the screen when the radio tracks vessels.

Position-Tracking Polling Interval Sequence

Regulations allow transmission of one position-request call every five minutes. When tracking more than one vessel, the radio alternates calling each vessel in the list at five-minute intervals. If a vessel does not respond to five consecutive position-request calls, the radio removes the vessel from the position-tracking list.

You can use this table to better understand how the time interval is applied to the vessels in the position-tracking list.

Vessel	Time
Ship 1	0 minutes (immediately when starting position tracking)
Ship 2	5 minutes
Ship 3	10 minutes
Ship 1	15 minutes
Ship 2	20 minutes
Ship 3	25 minutes

Viewing and Deactivating Vessels on the Position Tracking List

You can deactivate vessels that you want to keep in the tracking list, but do not want to actively track.

1. Select **DSC** > **POS. TRACKING** > **VESSELS**.
2. Select a vessel.
3. Select **OFF**.

Deleting a Vessel From the Position Tracking List

You can delete vessels from the tracking list that you don't plan to track in the future.

1. Select **DSC** > **POS. TRACKING** > **DELETE**.
2. Select a vessel.
3. Select **YES**.

Call Log

When the radio receives a DSC call, it records the date and time, calling station, and type of call in the call log. The radio also records the latitude and longitude of the calling station if that data is transmitted with the call.

DSC calls are logged as distress, position, or other calls.

Call Type	Call Log
Distress	Distress
Distress relay	Distress
Distress acknowledge	Distress
Position send	Position
Position request	Position
Group	Other
All Ships	Other
Individual	Other

When you enter a calling station in your directory, the name of the station appears in the list of calls. If the calling station is not saved in your directory, the MMSI number appears in the list of calls. A symbol indicates the station type.

Symbol	Meaning	MMSI Number Format
	Ship station	XXXXXXXXX
	Group call	0XXXXXXXX
	Coastal station	00XXXXXXX

Viewing the Calls in the Call Log

1. Select **DSC** > **CALL LOG**.
2. Select a call-log category.
3. Select a call.
   Information about the call appears on the screen.

Placing a Call from a Call Log

Calls placed from the call log are placed as individual routine calls.

1. Select **DSC** > **CALL LOG**.
2. Select a call log type.
3. Select the MMSI number or the station name.
4. Select **CALL**.
5. Select a channel on which to transmit the call (*Channel Lists*, page 24).
   The radio transmits the channel request with your call.
6. Select **CALL**.

Saving a Vessel or Station to the Directory from the Call Log

1. Select **DSC** > **CALL LOG**.
2. Select a call-log category.
3. Select the MMSI number you want to save.
4. Select **SAVE**.
5. Enter or edit the name for the saved vessel or station (optional) (*Entering Text*, page 10).

Deleting a Call Log Entry

1. Select **DSC**.
2. Select a call-log category.
3. Select the MMSI number or station.
4. Select ▼.
5. Select **DELETE**.

Directory

You can store the MMSI numbers of vessels and stations, and assign names to them for quick access or for identification purposes.

Viewing Saved Vessels and Stations in the Directory

1. Select **DSC** > **DIRECTORY** > **DIRECTORY**.
2. Select a saved vessel or station.

Adding an Entry to the Directory

1. Select **DSC** > **DIRECTORY** > **ADD ENTRY**.
2. Enter the MMSI number (*Entering Text*, page 10).
3. Enter a name (optional).
4. Select **ACCEPT**.

Editing an Entry in the Directory

1. Select **DSC** > **DIRECTORY** > **EDIT ENTRY**.
2. Select an entry.
3. Edit the MMSI number, the name, or both (*Entering Text*, page 10).
4. Select **ACCEPT**.

Deleting an Entry from the Directory

1. Select **DSC** > **DIRECTORY** > **DELETE**.
2. Select an entry.
3. Select **YES**.

Adding a Group

A DSC group is a collection of specific vessels, such as a sailing club or flotilla, that share a single group MMSI number.

1. Select **DSC** > **GROUP** > **ADD ENTRY**.
2. Enter the group MMSI number (*Entering Text*, page 10).
3. Enter a name for the group (optional).
4. Select **ACCEPT**.

Editing a Group

1. Select **DSC** > **GROUP** > **EDIT ENTRY**.
2. Select a group.
3. Edit the group MMSI number, the name, or both (*Entering Text*, page 10).
4. Select **ACCEPT**.

Deleting a Group

1. Select **DSC** > **GROUP** > **DELETE**.
2. Select a group.
3. Select **YES**.

DSC Settings

Manual Position Information

If you do not have a GPS device connected to your radio, you can manually enter your position and time of entry. The position data is transmitted with DSC calls. When you enter the position and time manually, MANUAL POS appears on the screen.

Manually entered position information must be updated regularly, and the radio displays two alerts to remind you to update the position data.

- When the position data you entered manually is more than four hours old, DATA IS OVER 4 HOURS OLD appears on the screen. The radio continues to transmit this position data, but you should update it before it becomes invalid.
- When the position data you entered manually is more than 23.5 hours old, it is considered invalid and DATA IS INVALID appears on the screen. The radio does not transmit invalid position data, and you should update it immediately.

Entering Position Information Manually

1. Select **MENU** > **SYSTEM** > **MANUAL GPS**.
2. Enter your current coordinates and the present time (*Entering Text*, page 10).
3. Select **ACCEPT**.

Changing the Channel to 16 Automatically

By default, the radio changes to channel 16 automatically when receiving distress, distress relay, and all-ships urgency calls. In certain situations, when you must continually monitor a channel to maintain uninterrupted communication with another vessel, for example, you can disable this feature.

1. Select **MENU** > **DSC** > **AUTO CHANGE CH.**.
2. Select an option:
   - To set the radio to switch automatically to channel 16 when you receive a qualifying call, select **ON**.
   - To set the radio to prompt you to accept or decline a channel change when you receive a qualifying call, select **OFF**.

Sending Automatic Replies

You can configure the radio to automatically respond to incoming calls, including position requests.

NOTE: When you configure the radio to automatically respond to incoming calls, the radio also changes the channel automatically for all incoming individual calls.

1. Select **MENU** > **DSC** > **INDIV REPLY**.
2. Select an option:
   - To send automatic replies, select **AUTO**.
   - To send replies manually, select **MANUAL**.

Automatic Transmitter Identification System

Automatic Transmitter Identification System (ATIS) is a vessel identification system used on certain inland waterways in some European countries. See your Garmin dealer to program your VHF radio if you plan to use your radio on waterways that are within the bounds of the Regional Arrangement Concerning the Radiotelephone Service on Inland Waterways (the Basel Agreement). ATIS is prohibited outside the European inland waterways that are covered by the Basel Agreement.

When you enable ATIS, your radio sends a data signal identifying your station at the end of every transmission. Data identifying your position is not sent, but your position is calculated through the method of triangulation by coastal stations that receive your transmissions.

To enable ATIS, you must enter your ATIS identification number (*Entering Your ATIS Identification Number*, page 20), and turn on ATIS (*Turning On and Off ATIS*, page 20). See your Garmin dealer to determine your ATIS identification number and to learn about ATIS requirements for your region.

Your radio disables these functions when you enable ATIS.

- Digital Selective Calling (DSC)
- Monitor two or three channels (Dual watch and Tri watch)
- Scanning channels

International channels 6, 8, 10, 11, 12, 13, 14, 71, 72, 74, and 77 restrict transmitting to low-power (1 W) when you enable ATIS.

Entering Your ATIS Identification Number

NOTICE

You can enter your ATIS identification number only once. If you must change your ATIS identification number after entering it, you must take your radio to your Garmin dealer for reprogramming.

NOTE: You can access the ATIS settings on the radio after the ATIS feature is activated by your Garmin dealer.

1. Select **MENU** > **ATIS** > **MY ATIS ID**.
2. Enter your ATIS number (*Entering Text*, page 10).
3. Select **ACCEPT**.

   The radio prompts you to reenter your number.
4. Enter your ATIS number again, and select **ACCEPT**.

   If the ATIS numbers do not match, a message appears.
5. If necessary, select **RETRY**, and enter the number again.

Turning On and Off ATIS

1. Select **MENU** > **ATIS** > **ATIS**.
2. Select **ON** or **OFF**.

   ATIS appears on the screen when ATIS is enabled.
3. Select **OK**.

Viewing Your ATIS Identification Number

Select **MENU** > **ATIS** > **MY ATIS ID**.

Automatic Identification System

The Automatic Identification System (AIS) is an automatic tracking system used on vessels and by vessel traffic services (VTS). It enables vessels and VTS to identify and locate vessels by electronically exchanging data with other nearby vessels and AIS base stations. When used with a compatible chartplotter, AIS can assist with collision avoidance by showing you information about the position of other vessels within range.

NOTE: The VHF 215/215i AIS radios are equipped with an AIS receiver only. They cannot transmit AIS reports.

Turning On and Off AIS

1 Select **MENU** > **AIS**.
2 Select **ON** or **OFF**.
3 Select **OK**.

NMEA 0183 and NMEA 2000

When you connect the radio to a NMEA 0183 device or a NMEA 2000 network, you can transfer received DSC distress and position information to any compatible connected chartplotter (*NMEA*, page 26).

The VHF 215/215i AIS radio models can also transfer the AIS position of nearby vessels to any compatible connected chartplotter.

For more information on connecting the radio to a NMEA 0183 device or a NMEA 2000 network, see the *Installation Instructions*.

NOTE: The radio cannot communicate with NMEA 0183 and NMEA 2000 devices at the same time. Only one protocol can be active at a time (*Communicating Over NMEA 0183 or NMEA 2000*, page 21).

Additional Functionality with Other Garmin Devices

The radio has additional capabilities when you connect it to other Garmin devices, such as a chartplotter.

NOTE: You may need to upgrade your Garmin chartplotter software to use NMEA 0183 or NMEA 2000 features.

When you connect the radio to a Garmin chartplotter using either NMEA 0183 or NMEA 2000, your chartplotter keeps track of the current and previous positions of the contacts in the directory.

When you connect the radio to the same NMEA 2000 network as a Garmin chartplotter, you can use the chartplotter to set up an individual routine call.

When you connect the radio to the same NMEA 2000 network as a Garmin chartplotter, and you initiate a man-overboard distress call from the radio, the chartplotter prompts you to navigate to the man-overboard location. If you connect a Garmin autopilot system to the same NMEA 2000 network, the chartplotter prompts you to start a Williamson's turn to the man-overboard location.

Communicating Over NMEA 0183 or NMEA 2000

1 Select **MENU** > **COMMUNICATIONS** > **PROTOCOL**.
2 Select **NMEA0183** or **NMEA2000**.

Configuring DSC NMEA Transmissions

You can filter the types of DSC-call data the radio sends to a connected NMEA 0183 device or over a NMEA 2000 network.

1 Select **MENU** > **COMMUNICATIONS** > **DSC OUTPUT**.
2 Select an option:
   - To send NMEA data when you receive a DSC call from any MMSI number, select **ALL VESSELS**, and proceed to the last step.
   - To disable sending NMEA data when you receive a DSC call, select **NO VESSELS**, and proceed to the last step.
   - To send NMEA data only when you receive a call from a vessel in your directory, select **SELECT VESSELS**, and proceed to the next step.

     NOTE: When you configure the radio for **SELECT VESSELS**, all received DSC-distress-call data is sent over NMEA, even if the vessel is not in your directory.
3 Select a vessel in your directory.
4 Select an option:
   - To send all DSC-call data from this vessel, select **ON**.
   - To send DSC-distress-call data only from this vessel, select **OFF**.
5 Repeat this process for each vessel in your directory.
6 Select **BACK** to save your changes and exit the menu.

System Settings

Select **MENU** > **SYSTEM**.
DISPLAY: Sets the backlight and contrast levels.

BEEPER: Sets the volume or disables the beeper tone that sounds when you press a key or turn a dial.

AUTO POWER-ON: Sets the radio to turn on automatically when it receives power.

LANGUAGE: Sets the language for the radio.

INT GPS SETUP: Turns on or off the internal GPS antenna.

Number Settings

You can customize the numbers shown on the home screen of the radio.

Select **MENU** > **SYSTEM** > **NUMBERS**.

LAT/LONG: Shows or hides the latitude and longitude numbers provided by the GPS position, or from manually-entered position data.

TIME: Shows or hides the time provided by the GPS acquisition, or from manually-entered information.

NOTE: The time updates automatically only if you acquire a GPS position. When you enter your time and position manually, the time shown does not update automatically. For manually entered position and time data, the time of entry is always shown on the home screen, even if you hide the time with this setting.

COG/SOG: Shows or hides course-over-ground (COG) and speed-over-ground (SOG) information.

NOTE: You must acquire a GPS position to show course-over-ground (COG) and speed-over-ground (SOG) information.

Units Settings

You can set the unit of measure used for values shown on the radio.

Select **MENU** > **SYSTEM** > **UNITS**.

SPEED: Sets the unit of measure shown for speed-related fields, such as speed-over-ground.

TIME > FORMAT: Sets the time format.

HEADING: Sets the radio to show all heading calculations, such as Course Over Ground (COG), using true or magnetic north.

NOTE: If the radio is configured for NMEA 2000 communication, the heading unit is set to AUTO, and shows heading data based on the information provided over the network. This setting cannot be changed.

Configuring the Time Offset

You can show the local time rather than Universal Coordinated Time (UTC). When you adjust for local time, LOC appears after the time on the home screen.

NOTE: When you make a DSC call, the time is sent in UTC format.

1. Select **MENU** > **SYSTEM** > **UNITS** > **TIME** > **OFFSET**.
2. Turn the **SELECT** dial to adjust the time offset from UTC.
3. Select **OK**.

Selecting the Frequency Band

You can switch between the USA, International, or Canadian frequency bands (*Channel Lists*, page 24).

NOTE: The VHF 115i/215i radio may need a software update to access the USA and Canada bands. Visit garmin.com/support/software/marine for information on updating the software on your radio.

1. Select **MENU** > **CHANNEL** > **FREQUENCY BAND**.
2. Select a frequency band.

Changing a Channel Name

Channel names appear on the home screen using nine characters. If a channel name is longer than nine characters, the full name scrolls across the top of the screen, then switches to the short name. You can change the name of a channel to reflect a local meaning.

1. Select **MENU** > **CHANNEL** > **NAME**.
2. Turn the **SELECT** dial to select a channel, and select **OK**.
3. Change the name of the channel (*Entering Text*, page 10).
4. Select **ACCEPT**.

Restoring Factory Settings

You can restore the radio to the default factory settings. When you restore the radio to factory settings, all system changes and customizations are lost. Restoring factory settings deletes the call logs, but retains group entries, directory entries, the MMSI number, and the ATIS ID.

1. Select **MENU** > **SYSTEM** > **SYSTEM INFO** > **RESET**.
2. Select **YES** to confirm the reset.

Appendix

Alarms and Messages

BATTERY ALRM: Sounds when the battery reaches a specified low or high voltage. Check the battery wiring.

WX: Sounds when you set a weather alarm and the radio detects an incoming weather alert (*NOAA® Weather Broadcasts and Alerts*, page 10). The radio tunes automatically to the weather channel that is broadcasting the alert.

NOTE: NOAA Weather Radio is not available on VHF 115i/215i radios.

GPS ALARM: Sounds first when GPS data from a NMEA network or position data entered manually is more than four hours old. Sounds again when GPS data from a NMEA network or position data entered manually is more than 23.5 hours old (*Manual Position Information*, page 19).

POSITION TRACKING: Appears after five consecutive failed attempts to request position information from a vessel (*Position Tracking*, page 15).

Channel Lists

The International, USA, and Canadian channel lists are available online for reference. You are responsible for the correct use of channels according to local regulations.

- To view the latest international channel list, go to www.navcen.uscg.gov/international-vhf-marine-radio-channels-freq .
- To view the latest USA channel list, go to www.navcen.uscg.gov/us-vhf-channel-information.
- To view the latest Canadian channel list, go to www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf01011.html#sched1.

Specifications

Specification	Measurement
Dimensions (H x W x D)	VHF 115/115i: 8.5 x 17 x 14.6 cm (3.35 x 6.7 x 5.75 in.) VHF 215/215i: 9.8 x 19.7 x 14.9 cm (3.86 x 7.76 x 5.78 in.)
Weight	VHF 115/115i (with microphone): 1.241 kg (43.77 oz.) VHF 215/215i (without microphone): 1.212 kg (42.75 oz.) VHF 215/215i microphone: 0.248 kg (8.75 oz.)
Operating temperature range	From -15° to 55°C (from 5° to 131°F)
Storage temperature range	From -20° to 70°C (from -4° to 158°F)
Compass-safe distance	VHF 115/115i: 70 cm (27.6 in.) VHF 215/215i: 75 cm (29.5 in.)
Water rating	IEC 60529 IPX7[3]
Antenna connector	S0-239 (50 ohms)
Operating voltage	12.0 Vdc
Wireless frequency	156 to 162 MHz @ 44 dBm (25 W) maximum
Standby current draw	350 mA
Receive current draw	600 mA
Transmit current draw	From 2.0 A to 6.0 A (from 1 W to 25 W)
Maximum antenna gain	9 dBi
Antenna port impedance	50 ohms
Internal speaker audio output power	1 W (with 4 ohms at 10% distortion)
External speaker audio output power	4 W (4 ohms/max)
External speaker impedance	4 ohms
Hailer output power	20 W at 4 ohms
Hailer horn impedance	4 ohms
NMEA 2000 LEN @ 9.0 Vdc	1 (50 mA)

[3] The device withstands incidental exposure to water of up to 1 m for up to 30 min. For more information, go to www.garmin.com/waterrating.

NMEA

NMEA 2000 PGN Information

Transmit

PGN	Description
059392	ISO acknowledgment
060928	ISO address claim
061184	Single-frame proprietary
126208	NMEA request group function
126464	PGN's group function
126720	Fast-packet proprietary
126993	Heartbeat
126996	Product information
126998	Configuration information
129799	Radio frequency/mode/power
129808	DSC call information

Receive

PGN	Description
059392	ISO acknowledgment
059904	ISO request
060160	ISO transport protocol, data transfer
060416	ISO transport protocol, connection management - RTS group function
060928	ISO address claim
061184	Single-frame proprietary
065240	ISO commanded address
126208	NMEA request group function
126720	Fast-packet proprietary
129026	COG and SOG, rapid update
129029	GNSS position data
129044	Datum

Transmit (VHF 215/215i AIS only)

PGN	Description
129038	AIS class A position report
129039	AIS class B position report
129040	AIS class B extended position report
129041	AIS Aids to Navigation (AtoN) report
129794	AIS class A static and voyage related data
129798	AIS SAR aircraft position report
129802	AIS safety related broadcast message
129809	AIS class B "CS" static data, part A
129810	AIS class B "CS" static data, part B

NMEA 0183 Information

Transmit

Sentence	Description
DSC	Digital selective calling (DSC) information
DSE	Expanded digital selective calling
VDM (AIS model only)	AIS VHF data-link message

Receive

Sentence	Description
DTM	Datum reference
GGA	Global positioning system fix data
GLL	Geographic position (latitude and longitude)
GNS	GNSS fix data
RMA	Recommended minimum specific Loran-C data
RMC	Recommended minimum specific GNSS data

Cleaning the Outer Casing

NOTICE

Avoid chemical cleaners and solvents that can damage plastic components.

1. Clean the outer casing of the device (not the screen) using a cloth dampened with a mild detergent solution.
2. Wipe the device dry.