GARMIN.

DESCENT™ X50i - M/N : A04666

Owner's Manual

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Pairing Your Phone

To use the connected features on your dive computer, you must pair it directly through the app, instead of from the Bluetooth® settings on your phone.

When prompted during the initial setup on your dive computer, scan the QR code with your phone, and follow the on-screen instructions to complete the pairing and setup process.

Charging the Device

WARNING

This device contains a lithium-ion battery. See the *Important Safety and Product Information* guide in the product box for product warnings and other important information.

NOTICE

To prevent corrosion, thoroughly clean and dry the contacts and the surrounding area before charging or connecting to a computer.

1. Pinch the sides of the charging clip.
2. Align the clip with the contacts on the back of the device, and release the clip.
3. Plug the USB cable into a USB charging port.

Diving

⚠ WARNING

Failure to heed the following warnings could result in an accident or medical event resulting in death or serious injury.

Dive Warnings

- The diving features of this device are for use by certified divers only. This device should not be used as a sole dive computer. Failure to input the appropriate dive-related information into the device can lead to serious personal injury or death.
- Do not exceed the maximum dive depth rating for the device.
- Make sure that you fully understand the use, displays, and limitations of your device. If you have questions about this manual or the device, always resolve any discrepancies or confusion before diving with the device. Always remember that you are responsible for your own safety.
- There is always a risk of decompression illness (DCI) for any dive profile even if you follow the dive plan provided by the dive tables or a diving device. No procedure, diving device, or dive table will eliminate the possibility of DCI or oxygen toxicity. An individual's physiological make up can vary from day to day. This device cannot account for these variations. You are strongly advised to remain well within the limits provided by this device to minimize the risk of DCI. You should consult a physician regarding your fitness before diving.
- Perform pre-dive safety checks, such as checking proper device function and settings, display function, battery level, tank pressure, and bubble checks to check hoses and connections for leaks.
- Do not dive with a gas if you have not personally verified its contents and input the analyzed value to the device. Failure to verify tank contents and input the appropriate gas values to the device will result in incorrect dive planning information and could result in serious injury or death.
- Diving with more than one gas mixture presents a much greater risk than diving with a single gas mixture. Mistakes related to the use of multiple gas mixtures may lead to serious injury or death.
- Always ensure a safe ascent. A rapid ascent increases the risk of DCI.
- Disabling the deco lockout feature on the device can result in an increased risk of DCI, which can result in personal injury or death. Disable this feature at your own risk.
- Violating a required decompression stop may result in serious injury or death. Never ascend above the displayed decompression stop depth.
- Always perform a safety stop between 3 and 5 meters (9.8 and 16.4 feet) for 3 minutes, even if no decompression stop is required.

CAUTION

Failure to heed the following cautions could result in minor or moderate injury, or property damage.

Dive Cautions

- Dive messaging requires line of sight between two compatible receivers with the latest compatible software versions. Obstructions and other environmental factors may affect receiver connectivity and may delay or prevent the sending and receiving of messages. With good connectivity, data can be successfully sent between divers in under 20 seconds. If connectivity is poor, devices will attempt to send data for up to two minutes. This is a supplemental feature that should not be relied upon as a method to receive emergency assistance and should not replace traditional dive safety tools and procedures.
- The device range and availability of messaging and/or location tracking depends on the type of compatible devices to which this device is communicating.

Dive Modes

The Descent X50i device supports six dive modes. Each dive mode has four phases: dive pre-check, surface display, in-dive, and post-dive. During the pre-dive check, you can confirm the dive settings before you start diving (*Dive Setup*, page 3). The surface phase shows the data screens for the dive mode (*Dive Data Screens*, page 7). The in-dive phase shows data about the dive in progress, and other watch features, such as GPS, are disabled. During the post-dive review, you can view a summary of the completed dive (*Viewing the Dive Log Glance*, page 16).

Single-Gas: This mode allows you to dive with a single gas blend. You can set up to 11 additional gases as backup gases.

Multi-Gas: This mode allows you to configure multiple gas blends and switch gases during your dive. You can set the oxygen content from 5–100%. This mode supports one bottom gas, and up to 11 additional gases as decompression or backup gases.

NOTE: Backup gases are not used in no-decompression limit (NDL) and time to surface (TTS) decompression calculations until you activate them during a dive.

CCR: This mode for closed-circuit rebreather (CCR) diving allows you to configure two partial pressure of oxygen (PO2) setpoints, closed-circuit (CC) diluent gases, and open-circuit (OC) decompression and backup gases.

Gauge: This mode allows you to dive with basic bottom timer features.

NOTE: After diving in gauge mode, the device can only be used in gauge or apnea mode for 24 hours.

Apnea: This mode allows you to free dive with apnea-specific dive data. This mode has a higher data refresh rate.

Apnea Hunt: This mode is similar to the Apnea dive mode, but tuned specifically for spearfishers. This mode disables start and stop tones.

Using the Pool Dive Mode

When the device is in pool dive mode, the tissue load and decompression lockout features function normally, but dives are not saved to the dive log.

1. Hold **LIGHT** to view the controls menu.
2. Select .

The pool dive mode turns off automatically at midnight.

Dive Setup

You can customize the dive settings based on your needs. Not all settings are applicable for all dive modes. You can also edit the settings before you start a dive.

Hold **MENU**, and select **Dive Setup**.

Dive Mode Advanced Settings

Hold **MENU**, and select **Dive Setup > Advanced Settings**.

Double Tap to Scroll: Allows you to double tap the device to scroll through the dive data screens. If you notice accidental scrolling, you can use the Sensitivity option to adjust the responsiveness.

UP Key: Allows you to enable or disable the UP button during dive activities to prevent inadvertent button presses.

Silent Diving: Allows you to disable all tones and vibrations for alerts during dive activities.

Heart Rate: Allows you to enable or disable a heart rate monitor for dives. The Stored Strap Data option allows you to enable a chest heart rate monitor, such as the HRM-Pro™ series accessory, that stores heart rate data with the dive. You can view chest heart rate monitor data in the app after you complete the dive.

Compass: Allows you to calibrate and set the north reference of the dive compass.

No-Fly Time: Allows you to set the no-fly countdown timer mode (*No-Fly Time*, page 7).

Satellites: Sets the satellite system to use for dive entry and exit locations for each dive mode.

Units: Sets the distance, depth, and tank pressure units of measure for diving.

Deco Lockout: Allows you to disable the decompression lockout feature. This feature prevents single-gas, multi-gas, and CCR dives for 24 hours if you violate a decompression ceiling for more than three minutes.

NOTE: You can still disable the decompression lockout feature after violating a decompression ceiling.

Setting Up Your Breathing Gases

You can enter up to twelve gases for each gas dive mode. Decompression calculations include your decompression gases, but do not include your backup gases.

1. Hold **MENU**.
2. Select **Dive Setup** > **Gases**.
3. Select a dive mode.
4. Select the first gas in the list.

   For single-gas or multi-gas dive modes, this is the bottom gas. For the closed-circuit rebreather (CCR) dive mode, this is the diluent gas.
5. Select **Oxygen**, and enter the oxygen percentage of the gas blend.
6. Select **Helium**, and enter the helium percentage of the gas blend.

   The device calculates the remaining percentage as the nitrogen content.
7. Press **BACK**.
8. Select an option:

   NOTE: Not all options are available for all dive modes.

   - Select **Add Backup**, and enter the oxygen and helium percentage for your backup gas.
   - Select **Add New**, enter the oxygen and helium percentage, and select **Mode** to set the intended use for the gas, such as decompression or backup.

     NOTE: For the multi-gas dive mode, you can select **Set as Travel Gas** to set a decompression gas as your intended gas for descending.

Custom Dive Alerts

You can set custom dive alerts to help you train toward a specific goal or to increase your awareness of your environment.

Alert Name	Dive Mode	Description
Depth		The alert occurs when you reach the selected depth.
Neutral Buoyancy		The alert occurs when you reach the selected depth.
Start/Stop		The alert occurs when you start or stop a dive.
Surface Timer		The alert occurs when the selected time interval elapses.
Target Depth		The alert occurs when you reach the selected depth.
Time		The alert occurs when the selected time interval elapses.
Variometer		The alert occurs every time you reach the selected depth interval.

Setting a Custom Dive Alert

1. Hold **MENU**.
2. Select **Dive Setup**.
3. Select an option:
   - Select **Scuba Alerts**.
   - Select **Apnea Alerts**.
4. Select an option:
   - Select **Add Alert** to add a new alert.
   - Select the alert name to edit an existing alert.
5. If necessary, enable the alert.
6. Select an option:

   NOTE: Not all options are available for all alert types.
   - Select **Depth** to specify the depth that should trigger the alert.
   - Select **Time** to specify the time interval that should trigger the alert.
   - Select **Speed** to specify the vertical speed threshold that should trigger the alert.

     NOTE: You can set the alert to trigger when your vertical speed exceeds or drops below the selected speed.
   - Select **Interval** to specify if the alert should trigger once or at a repeat interval.
   - Select **Direction** to specify if the alert should be enabled for ascending, descending, or both.
   - Select **Dive Types** to specify which dive modes should allow the alert to trigger.
   - Select **Sound and Vibe** to set the alert tone, vibration, or neither.
   - Select **Pop-up** to enable a pop-up notification for the alert.
   - Select **Preview Alert** to see how the alert appears and sounds during a dive.

Setting PO2 Thresholds

You can configure the partial pressure of oxygen (PO2) alert message thresholds, in bar.

1. Hold **MENU**.
2. Select **Dive Setup** > **PO2**.
3. Select an option:
   - Select **MOD/Deco PO2** to set the maximum operating depth (MOD) and decompression PO2 threshold for your planned bottom gas before you should begin your ascent and switch to the decompression gas with the highest percentage of oxygen.

     NOTE: The watch does not switch gases for you automatically. You must select the gas.
   - Select **PO2 Warning** to set the threshold for the highest oxygen concentration level that you are comfortable reaching.
   - Select **PO2 Critical** to set the threshold for the maximum oxygen concentration level that you should reach.
4. Enter a value.

If you reach the PO2 Critical threshold value during a dive, the watch displays an alert message (*Dive Alerts*, page 20).

Setting CCR Setpoints

You can configure the high and low partial pressure of oxygen (PO2) setpoints for closed-circuit rebreather (CCR) dives.

1. Hold **MENU**.
2. Select **Dive Setup** > **CCR Setpoints**.
3. Select an option:
   - To configure the lower PO2 setpoint, select **Low Setpoint**.
   - To configure the upper PO2 setpoint, select **High Setpoint**.
4. Select **Mode**.
5. Select an option:
   - To automatically change the setpoint based on your current depth, select **Auto**.

     NOTE: For example, if you descend through the high setpoint depth or ascend through the low setpoint depth, the PO2 threshold switches to the high or low setpoint, respectively. Automatic setpoint depths must be at least 6.1 m (20 ft.) apart.
   - To manually change setpoints during a dive, select **Manual**.

     NOTE: If you manually change setpoints within 1.8 m (6 ft.) of an automatic switch depth, then automatic setpoint switching is disabled until you are more than 1.8 m (6 ft.) above or below the automatic switch depth. This prevents unintended setpoint switching.
6. Select **PO2**, and enter a value.
7. If necessary, select **Depth**, and enter a depth value for the automatic setpoint change.

No-Fly Time

After a dive, you may need to wait several hours before it is safe to fly on an airplane. You can view more details on the surface interval glance (*Viewing the Surface Interval Glance*, page 16).

Hold **MENU**, and select **Dive Setup** > **No-Fly Time**.

No-Fly Time Mode	Dive Type	No-Fly Time
Standard or 24 Hours	Dive duration of 3 minutes or less or depth of 5 m (15 ft.) or less.	0 hours
Standard	Non-decompression dive more than 48 hours since the previous dive.	12 hours
Standard	Multiple non-decompression dives within 48 hours.	18 hours
Standard	Dive with a completed decompression stop.	24 hours
24 Hours	Non-gauge dive that did not violate the decompression plan.	24 hours
Standard or 24 Hours	Gauge dive or a dive that violated the decompression plan.	48 hours

Dive Data Screens

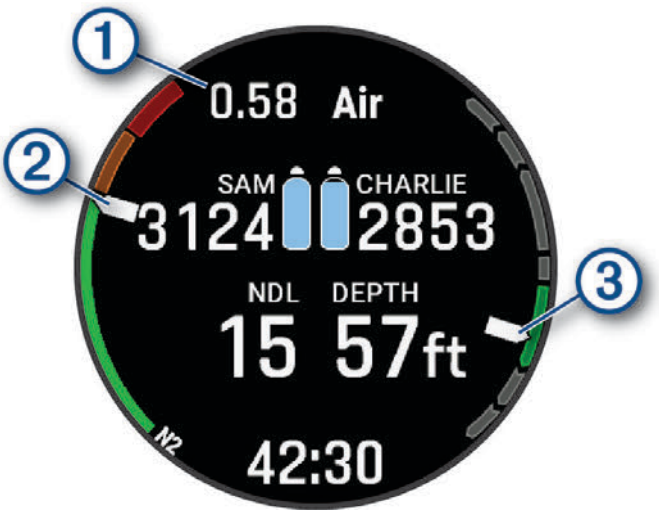
You can press **DOWN** or double-tap the device to scroll through the data screens.

In the activity settings, you can reorder the default data screens, add a dive stopwatch, and add custom data screens. You can customize the data fields on some of the data screens.

Single-Gas and Multi-Gas Data Screens

The primary data screen for single-gas and multi-gas dive modes displays the main dive data, including your breathing gas and rate of ascent or descent. You can press **DOWN** to scroll through additional data, including time of day, heart rate, battery life, maximum depth, and to view the dive compass (*Navigating with the Dive Compass*, page 12).

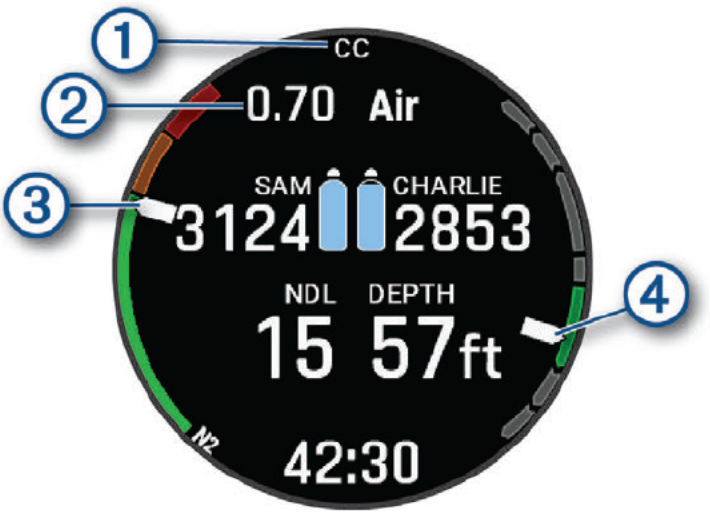
NOTE: The single-gas dive mode has Big Numbers mode enabled by default (*Big Numbers Mode*, page 11).



1	Your partial pressure of oxygen (PO2) level.
2	Your nitrogen (N2) and helium (He) tissue load level. Green: 0 to 79% tissue load. Yellow: 80 to 99% tissue load. Red: 100% or greater tissue load.
3	Your rate of ascent. Green: Good. Ascent is less than 7.9 m (26 ft.) per minute. Yellow: Moderately high. Ascent is between 7.9 and 10.1 m (26 and 33 ft.) per minute. Red: Too high. Ascent is greater than 10.1 m (33 ft.) per minute.

CCR Data Screens

The primary data screen for the CCR dive mode displays the main dive data, including your breathing gas and rate of ascent or descent. You can press **DOWN** to scroll through additional data, including your central nervous system (CNS) oxygen toxicity level and your current oxygen toxicity units (OTU) (*Viewing the Surface Interval Glance*, page 16), and view the dive compass (*Navigating with the Dive Compass*, page 12).



①	Indicates whether closed-circuit (CC) or open-circuit (OC) diving is active.
②	Your partial pressure of oxygen (PO2) level.
③	Your nitrogen (N2) and helium (He) tissue load level. Green: 0 to 79% tissue load. Yellow: 80 to 99% tissue load. Red: 100% or greater tissue load.
④	Your rate of descent or ascent. Green: Good. Ascent is less than 7.9 m (26 ft.) per minute. Yellow: Moderately high. Ascent is between 7.9 and 10.1 m (26 and 33 ft.) per minute. Red: Too high. Ascent is greater than 10.1 m (33 ft.) per minute.

Gauge Data Screens

The primary data screen for the gauge dive mode displays data for the current dive, including the current, maximum, and average depth and the stopwatch (*Using the Gauge Dive Stopwatch*, page 13). You can press **DOWN** to scroll through additional data, including time of day and heart rate, and view the dive compass (*Navigating with the Dive Compass*, page 12).

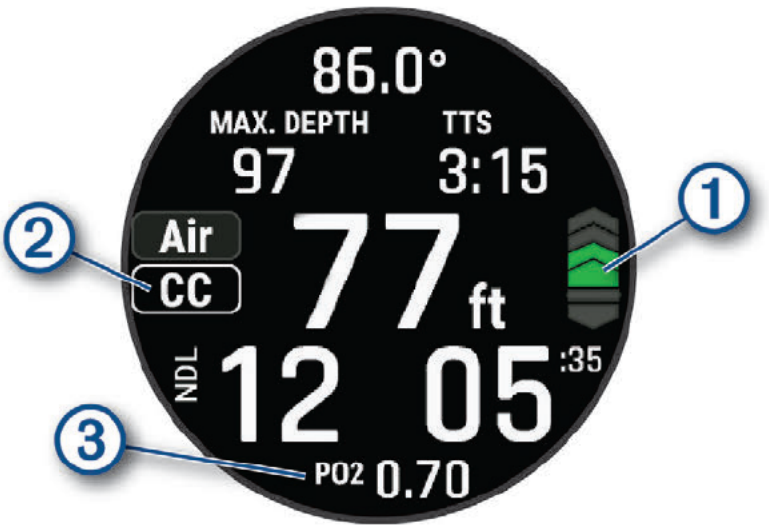
Apnea and Apnea Hunt Data Screens

The in-dive screen for the apnea and apnea hunt dive modes displays information about the current dive, including the elapsed time, current maximum depth, and rate of ascent or descent. During surface intervals, you can press **DOWN** to scroll through additional data, including last dive depth and time, view the map screen (*Diving with the Map*, page 15), and use the stopwatch (*Using the Basic Dive Stopwatch*, page 13).

Big Numbers Mode

You can change the size of the numbers on the single-gas, multi-gas, and CCR dive data screens.

1. Hold **MENU**.
2. Select **Dive Setup** > **Display Settings**.
3. Select **Single-Gas Mode**, **Multi-Gas Mode**, or **CCR Mode**.
4. Select **Big Numbers**.



1	Your rate of ascent. Green: Good. Ascent is less than 7.9 m (26 ft.) per minute. Yellow: Moderately high. Ascent is between 7.9 and 10.1 m (26 and 33 ft.) per minute. Red: Too high. Ascent is greater than 10.1 m (33 ft.) per minute.
2	Indicates whether closed-circuit (CC) or open-circuit (OC) diving is active in a CCR dive.
3	Your partial pressure of oxygen (PO2) level.

Going Diving

1. If necessary, select **Dive Mode**, and select a dive mode.
2. Select **Start Dive With**.
3. If necessary, select **View All Setup** to edit the dive settings, such as the gases, water type, and alerts (*Dive Setup*, page 3).
4. Wait with your wrist out of the water until the dive computer acquires GPS signals and the status bar is filled (optional).

   The dive computer requires GPS signals to save your dive entry location.
5. Select **Confirm**.
6. Descend to start your dive.

   The activity timer starts automatically when you reach a depth of 1.2 m (4 ft.).
7. Select an option:
   - Swipe up to scroll through the data screens and dive compass.
   - Press **ENTER** to view the in-dive menu.
8. When you are ready to end the dive, ascend to the surface.
9. Keep your wrist out of the water so the watch can acquire GPS signals and save your dive exit location (optional).
10. Wait for the **DIVE END** timer to count down.

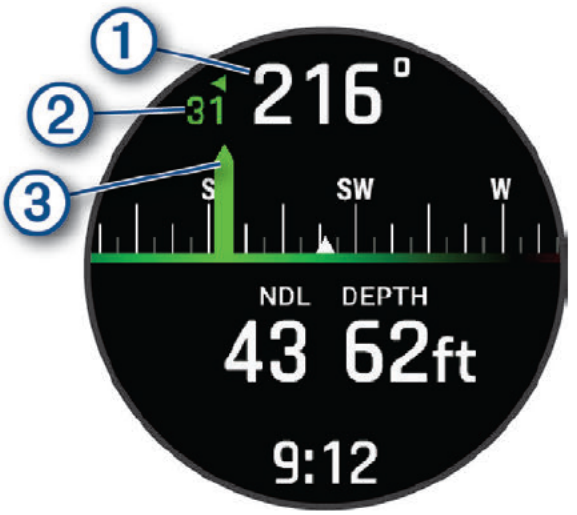
    NOTE: When you ascend to 1 m (3.3 ft.), the DIVE END timer begins counting down (*Dive Setup*, page 3). You can press ENTER, and select Stop Dive to stop the dive before the timer elapses.

    The dive computer saves the dive activity.

    TIP: You can view your diving history in the dive log glance (*Viewing the Dive Log Glance*, page 16).

Navigating with the Dive Compass

1. During a **Single-Gas**, **Multi-Gas**, **CCR**, or **Gauge** dive, scroll to the dive compass.



   The compass indicates your directional heading ①.
2. Press **ENTER** to set the heading.

   The compass indicates deviations ② from the set heading ③.

   TIP: You can set the heading from any of the dive data screens by holding ENTER and DOWN.

Using the Gauge Dive Stopwatch

1. Start a **Gauge** dive.
2. Press **ENTER**, and select **Reset Avg. Depth** to set the average depth to your current depth.
3. Press **ENTER**, and select **Start Stopwatch**.
4. Select an option:
   - To stop using the stopwatch, press **ENTER**, and select **Stop Stopwatch**.
   - To restart the stopwatch, press **ENTER**, and select **Reset Stopwatch**.

Using the Basic Dive Stopwatch

1. Select an option:
   - Add the **Stopwatch Timer** data screen to the **Single-Gas**, **Multi-Gas**, **CCR**, or **Gauge** dive mode.
   - Enable the **STOPWATCH** surface data screen for the **Apnea** or **Apnea Hunt** dive mode.
2. During a gas dive or apnea surface interval, scroll to the stopwatch screen.

   TIP: During an apnea surface interval, you can press and hold ENTER to open the stopwatch and start the timer, even if the screen is not enabled.
3. Press **ENTER** to start the timer.
4. Press **STOP** to stop the timer.
5. Press **BACK** to reset the timer.

Switching Gases During a Dive

1. Start a single-gas, multi-gas, or closed-circuit rebreather (CCR) dive.
2. Select an option:
   - Press **ENTER**, select **Gas**, and select a backup or decompression gas.

     NOTE: If necessary, you can select **Add New** and enter a new gas.
   - Dive until you reach the **MOD/Deco PO2** threshold (*Setting PO2 Thresholds*, page 6).

     The device prompts you to switch to the gas with the highest percentage of oxygen.

     NOTE: The device does not switch gases for you automatically. You must select the gas.

Switching Gases During a Dive

1. Start a single-gas, multi-gas, or closed-circuit rebreather (CCR) dive.
2. Select an option:
   - Press **ENTER**, select **Gas**, and select a backup or decompression gas.

     NOTE: If necessary, you can select **Add New** and enter a new gas.
   - Dive until you reach the **MOD/Deco PO2** threshold (*Setting PO2 Thresholds*, page 6).

     The device prompts you to switch to the gas with the highest percentage of oxygen.

     NOTE: The device does not switch gases for you automatically. You must select the gas.

Switching Between CC and OC Diving for a Bailout Procedure

During a closed-circuit rebreather (CCR) dive, you can switch between closed-circuit (CC) and open-circuit (OC) diving while you perform a bailout procedure.

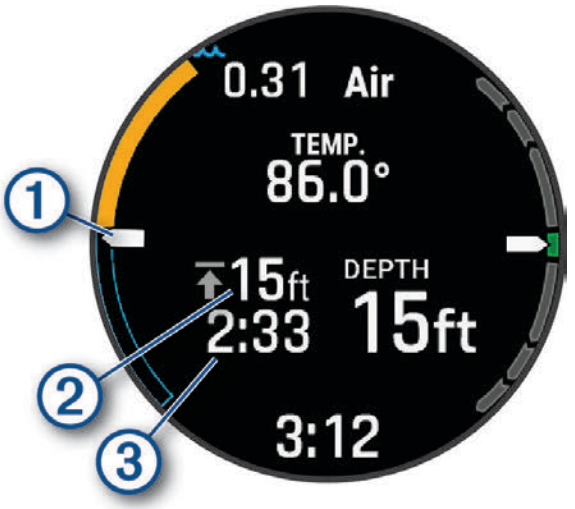
1. Start a CCR dive.
2. Press **ENTER**.
3. Select **Switch to OC**.

   NOTE: If you have not set up an OC decompression gas, the device switches to your diluent gas.
4. If necessary, press **ENTER**, and select **Gas** to manually switch to a backup gas.
5. Press **ENTER**, and select **Switch to CC** to switch back to CC diving.

Performing a Safety Stop

You should perform a safety stop during every dive to help reduce the risk of decompression sickness.

1 After a dive of at least 11 m (35 ft.), ascend to 5 m (15 ft.).
Safety stop information appears on the data screens.



The safety stop ceiling depth.
The safety stop timer. When you are within 1 m (5 ft.) of the ceiling depth, the timer starts counting down.

2 Stay within 2 m (8 ft.) of the safety stop ceiling depth until the safety stop timer reaches zero.
NOTE: If you ascend more than 3 m (8 ft.) above the safety stop ceiling depth, the safety stop timer pauses, and the device alerts you to descend below the ceiling depth. If you descend below 11 m (35 ft.), the safety stop timer resets.

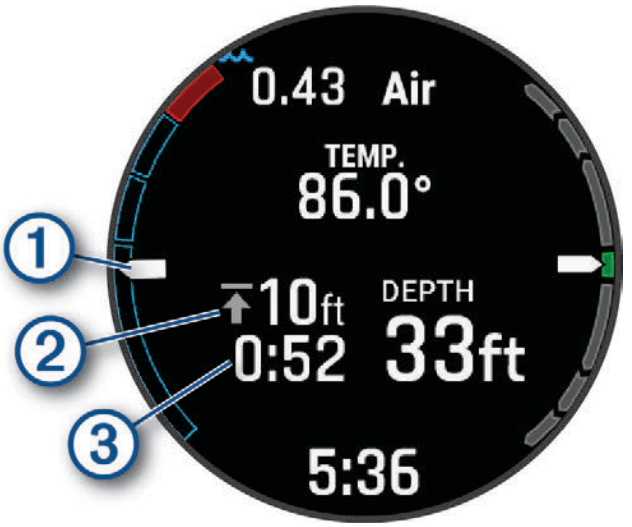
3 Continue ascending to the surface.

Performing a Decompression Stop

You should always perform all the required decompression stops during a dive to help reduce the risk of decompression sickness. Missing a decompression stop adds significant risk.

1 When you exceed the no-decompression limit (NDL) time, begin your ascent.

Decompression stop information appears on the data screens.



1	The decompression stop ceiling depth.
2	The decompression stop timer.

2 Stay within 0.6 m (2 ft.) of the decompression stop ceiling depth until the decompression stop timer reaches zero.

NOTE: If you ascend more than 0.6 m (2 ft.) above the decompression stop ceiling depth, the decompression stop timer pauses, and the device alerts you to descend below the ceiling depth.

3 Continue ascending to the surface or the next decompression stop.

Diving with the Map

You can view your dive entry and exit locations on the map during apnea surface intervals. With maps enabled, you can view shading for coastal depth zones and terrain.

TIP: You can view map data for all dive modes in the dive log glance and in the Garmin Dive™ app.

1 During an apnea dive activity, scroll to the map.

2 Press **ENTER**, and select an option:

- To pan or zoom the map, select **Pan/Zoom**.

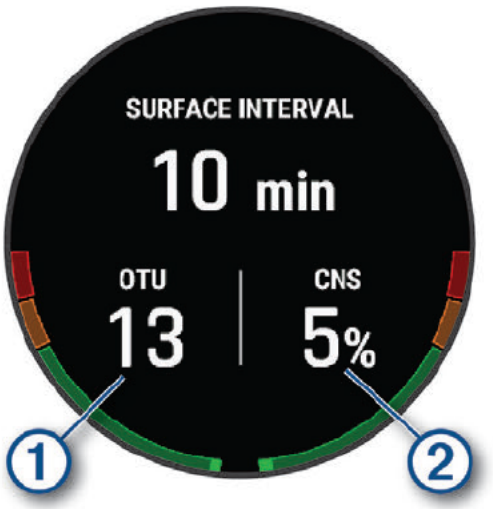
  TIP: You can press **ENTER** to toggle between panning up and down, panning left and right, or zooming. You can hold **ENTER** to select the point indicated by the crosshairs.

- To mark your location, select **Save Location**.

  TIP: You can press **DOWN** to change the icon.

Viewing the Surface Interval Glance

1 From the watch face, press **UP** or **DOWN** to view the surface interval glance.
2 Press **ENTER** to view your current oxygen toxicity units (OTU) and central nervous system (CNS) percentage.
NOTE: The OTU accumulated during a dive expire after 24 hours.



1	Green: 0 to 249 OTU. Yellow: 250 to 299 OTU. Red: 300 or greater OTU.
2	Green: 0 to 79% CNS oxygen toxicity. Yellow: 80 to 99% CNS oxygen toxicity. Red: 100% or greater CNS oxygen toxicity.

3 Press **DOWN** to view your tissue load details.
4 Press **DOWN** to view your no-fly time remaining and the time of day the no-fly period ends.

Viewing the Dive Log Glance

The glance displays summaries of your recently recorded dives.

1 From the watch face, press **UP** or **DOWN** to view the dive log glance.
2 Press **ENTER** to view your most recent dive.
3 Press **DOWN** > **ENTER** to view a different dive (optional).

Dive Readiness

WARNING

The dive readiness feature calculates dive readiness scores based on a limited set of factors and does not measure whether or not it is safe for you to dive. It is the responsibility of the diver to judge their own dive readiness and to plan and conduct a dive safely. Failure to do so could result in an accident leading to serious personal injury or death.

Your dive readiness is a score and a short message that can help you decide whether you are ready to dive. The score is continuously calculated and updated throughout the day using these factors:

- Sleep score (last night)
- Recovery time
- Body battery
- Jet lag
- Dive history
- Sleep history (last 3 nights)
- Training status

Color Zone	Score	Description
Green	75 to 100	Good Ready to dive
Yellow	50 to 74	Moderate Stay focused
Orange	25 to 49	Low Be cautious
Red	1 to 24	Poor Rest before diving

To see your dive readiness trends over time, go to the Garmin Dive app..

Dive Planning

You can plan for future dives using your watch, such as calculating your breathing gas or no-decompression limit (NDL) times.

Calculating NDL Time

You can calculate the no-decompression limit (NDL) time or maximum depth for a future dive. These calculations are not saved or applied to your next dive.

1. Press **ENTER**.
2. Select **Plan Dive** > **Compute NDL**.
3. Select an option:
   - To calculate NDL based on your current tissue load, select **Diving Now**.
   - To calculate NDL based on your tissue load at a future time, select **Enter Surf. Interval**, and enter your surface interval time.
4. Enter an oxygen percentage.
5. Select an option:
   - To calculate the NDL time, select **Enter Depth**, and enter the planned depth for your dive.
   - To calculate the maximum depth, select **Enter Time**, and enter your planned dive time.

   The NDL countdown clock, depth, and maximum operating depth (MOD) appear.
6. Select an option:
   - To exit, select **Done**.
   - To add intervals to your dive, select **Add Repeat Dive**, and follow the on-screen instructions.

Calculating Your Breathing Gas

You can calculate the PO2 value, oxygen percentage, or maximum depth for a dive by adjusting two of the three values. The calculations are affected by the water type setting in the Dive Setup menu (*Dive Setup*, page 3).

1. Press **ENTER**.
2. Select **Plan Dive** > **Calculate Gas**.
3. Press **UP** or **DOWN**, and select an option to calculate:
   - Select **PO2**.
   - Select **O2%**.
   - Select **Depth**.
4. Press **UP** or **DOWN** to edit the first value.
5. Press **ENTER**, then press **UP** or **DOWN** to edit the second value.

   As you edit the values, the device calculates an adjusted value for the highlighted option.
6. If necessary, press **BACK** to calculate the value for a different option.

Creating a Decompression Plan

You can create open-circuit decompression plans and save them for future dives.

1. Press **ENTER**.
2. Select **Plan Dive** > **Deco Plans** > **Add New**.
3. Enter a name for the decompression plan.
4. Select an option:
   - To enter the maximum partial pressure of oxygen in bars, select **PO2**.

     NOTE: The device uses the PO2 value for gas switching.
   - To enter your level of conservatism for decompression calculations, select **Conservatism**.
   - To enter your gas blends, select **Gases**.
   - To enter the depth of your last decompression stop, select **Last Deco Stop**.
   - To enter the maximum dive depth, select **Bottom Depth**.
   - To enter the time at the bottom depth, select **Bottom Time**.
5. Select **Save**.

Using Decompression Plans

1. Press **ENTER**.
2. Select **Plan Dive** > **Deco Plans**.
3. Select a decompression plan.
4. Select an option:
   - To view the decompression plan, select **View**.
   - To use the decompression plan settings for a dive mode, select **Apply**.
   - To change the decompression plan details, select **Edit**.
   - To edit the name of the decompression plan, select **Rename**.
   - To remove the decompression plan, select **Delete** > **Yes**.

Altitude Diving

At higher altitudes, the atmospheric pressure is lower, and your body contains a larger amount of nitrogen than it would at the start of a dive at sea level. The device accounts for altitude changes automatically using the barometric pressure sensor. The absolute pressure value used by the decompression model is not affected by the altitude or the gauge pressure displayed on the watch.

Tips for Wearing the Watch with an Exposure Suit

- Use the extra long silicone diving band to wear the watch over a thick exposure suit.
- Turn off the wrist-based heart rate monitor to increase battery life.

Dive Alerts

Alert Message	Cause	Watch Action
None	You completed the decompression stop.	
None	Your partial pressure of oxygen (PO2) value is above the specified warning value.	
%1 OTU accumulated. End your dive now.	Your oxygen toxicity units are above the safe limit. During a dive, "%1" is replaced with the number of units accumulated.	The alert appears every two minutes, up to three times.
250 OTU accumulated.	Your oxygen toxicity units (OTU) are at 250 units, and you are nearing the safe limit of 300 units.	None
Approaching Deco Stop	You are within one stop interval (3 m or 9.8 ft.) of the decompression stop depth.	None
Approaching NDL	You have 10 minutes of no decompression limit (NDL) time remaining.	The alert appears again when you have 5 minutes of NDL time remaining.
Ascending too fast. Slow your ascent.	You are ascending faster than 9.1 m/min. (30 ft./min.) for more than 5 seconds.	None
Battery critically low. End your dive now.	Less than 10% battery power remains.	The alert appears when the watch is below 10% battery power and on the dive pre-check screen for your next dive.
Battery is low.	Less than 20% battery power remains.	The alert appears when the watch is below 20% battery power and on the dive pre-check screen for your next dive.
CNS toxicity at %1%. End your dive now.	Your CNS oxygen toxicity is too high. During a dive, "%1" is replaced with your current CNS percentage.	The alert appears every two minutes, up to three times.
CNS toxicity at 80%.	Your central nervous system (CNS) oxygen toxicity is at 80% of the safe limit.	The alert appears during a dive and on the dive pre-check screen for your next dive.
Decompression Cleared	You completed all decompression stops.	None
Descend below deco ceiling.	You are more than 0.6 m (2 ft.) above the decompression ceiling.	If you remain above the decompression ceiling for more than three minutes, the decompression lockout feature goes into effect.
Descend to complete safety stop.	You are more than 2 m (8 ft.) above the safety stop ceiling.	
Dive will end in %1 seconds.	The watch will automatically end and save the dive. During a dive, "%1" is replaced by the number of seconds.	None
Do not dive. Failed to read depth sensor.	The watch has invalid or missing depth sensor data before you start a dive activity.	Do not start a dive. Call Garmin® Product Support.

Alert Message	Cause	Watch Action
Failed to read depth sensor. End your dive now.	The watch has invalid or missing depth sensor data after you have started a dive activity.	Use a backup dive computer or dive plan and end your dive. Call Garmin Product Support.
NDL exceeded. Decompression now required.	You have exceeded your NDL time.	The watch begins providing decompression stop guidance.
	Your PO2 value is above the specified critical value.	
Safety Stop Cleared	You completed the safety stop.	None
Safety Stop Started	You ascended above 6 m (20 ft.) without other decompression guidance.	The safety stop countdown timer begins, if configured.
Watch rebooted. Evaluate dive conditions.	The watch rebooted during the dive.	The watch simulates the dive for the time it was rebooting. Since other alerts may not have been triggered, evaluate your current depth and dive conditions.

Dive Terminology

Central nervous system (CNS): A measure of central nervous system oxygen toxicity caused by exposure to increased partial pressure of oxygen (PO2) while diving.

Closed-circuit rebreather (CCR): A diving mode used for dives performed with a rebreather that recirculates exhaled gas and removes carbon dioxide.

Maximum operating depth (MOD): The greatest depth at which a breathing gas can be used before the partial pressure of oxygen (PO2) exceeds the safe limit.

No decompression limit (NDL): A dive that does not require decompression time while ascending to the surface.

Oxygen toxicity units (OTU): A measure of pulmonary oxygen toxicity caused by exposure to increased partial pressure of oxygen (PO2) while diving. One OTU is equivalent to breathing 100% oxygen at 1 ATM for 1 minute.

Partial pressure of oxygen (PO2): The pressure of the oxygen in the breathing gas, based on depth and oxygen percentage.

Surface interval (SI): The amount of time that has elapsed since the completion of the last dive.

Time to surface (TTS): The estimated amount of time it will take to ascend to the surface, including decompression stops.

Navigation

WARNING

The device cannot calculate automotive routes using the included maps. Do not use the device for the automobile navigation, unless you have installed Garmin City Navigator® street maps.

Viewing and Editing Your Saved Locations

TIP: You can save a location from the controls menu .

1. From the watch face, press **ENTER**.
2. Select **Navigate** > **Saved Locations**.
3. Select a saved location.
4. Select an option to view or edit the location details.

Saving a Dual Grid Location

1. Hold **ENTER**.
2. Wait while the device locates satellites.
3. Select **ENTER** to save the location.
4. If necessary, select **DOWN** to edit the location details.

Setting a Reference Point

You can set a reference point to provide the heading and distance to a location or bearing.

1. Select an option:
   - Hold **LIGHT**.

     TIP: You can set a reference point while you are recording an activity.
   - From the watch face, press **ENTER**.
2. Select **Reference Point**.
3. Wait while the watch locates satellites.
4. Press **ENTER**, and select **Add Point**.
5. Select a location or bearing to use as a reference point for navigation.

   The compass arrow and distance to your destination appear.
6. Point the top of the watch toward your heading.

   When you deviate from the heading, the compass displays the direction from the heading and degree of deviation.
7. If necessary, press **ENTER**, and select **Change Point** to set a different reference point.

Navigating to a Destination

You can use your device to navigate to a destination or follow a course.

1. From the watch face, press **ENTER**.
2. Select **Map**.
3. Press **ENTER**.
4. Select **Navigate**.
5. Select a category.
6. Respond to the on-screen prompts to choose a destination.
7. Select **Go To**.
8. Select the activity you want to use while following the course.

   Navigation information appears.
9. Press **ENTER** to begin navigation.

Navigating to a Point of Interest

If the map data installed on your watch includes points of interest, you can navigate to them.

1. From the watch face, press **ENTER**.
2. Select an activity.
3. Hold **MENU**.
4. Select **Navigation** > **Points of Interest**, and select a category.
   A list of points of interest near your current location appears.
5. If necessary, select an option:
   - To search near a different location, select **Search Near**, and select a location.
   - To search for a point of interest by name, select **Spell Search**, and enter a name.
   - To search for nearby points of interest, select **Around Me**.
6. Select a point of interest from the search results.
7. Select **Go**.
   Navigation information appears.
8. Press **ENTER** to begin navigation.

Navigating to the Starting Point of a Saved Activity

You can navigate back to the starting point of a saved activity in a straight line or along the path you traveled. This feature is available only for activities that use GPS.

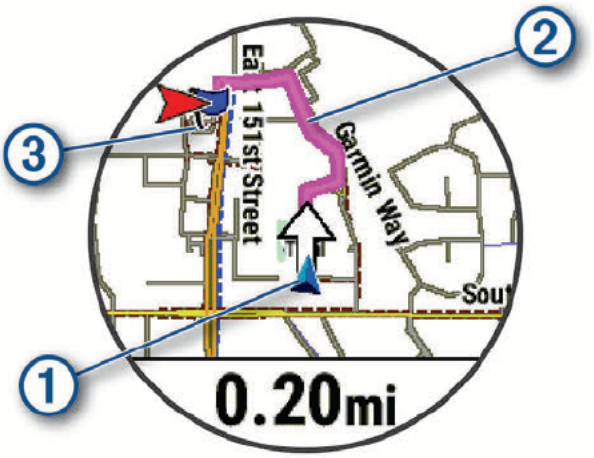
1. From the watch face, press **ENTER**.
2. Select an activity.
3. Hold **MENU**.
4. Select **Navigate** > **Past Activity**.
5. Select an activity.
6. Select **Back to Start**, and select an option:
   - To navigate back to the starting point of your activity along the path you traveled, select **TracBack**.

   NOTE: You can start the timer to prevent the watch from timing out to watch mode.
7. Press **DOWN** to view the compass (optional).
   The arrow points toward your starting point.

Navigating to Your Starting Point During an Activity

You can navigate back to the starting point of your current activity in a straight line or along the path you traveled. This feature is available only for activities that use GPS.

1. During an activity, press **STOP**.
2. Select **Back to Start**, and select an option:
   - To navigate back to the starting point of your activity along the path you traveled, select **TracBack**.



Your current location ①, the track to follow ②, and your destination ③ appear on the map.

Viewing Route Directions

You can view a list of turn-by-turn directions for your route.

1. While navigating a route, hold **MENU**.
2. Select **Turn By Turn**.
   A list of turn-by-turn directions appears.
3. Press **DOWN** to view additional directions.

Navigating with Sight 'N Go

You can point the device at an object in the distance, such as a water tower, lock in the direction, and then navigate to the object.

1. From the watch face, press **ENTER**.
2. Select an activity.
3. Hold **MENU**.
4. Select **Navigate** > **Sight 'N Go**.
5. Point the top of the watch at an object, and press **ENTER**.
   Navigation information appears.
6. Press **ENTER** to begin navigation.

Marking and Starting Navigation to a Man Overboard Location

1. From the watch face, press **ENTER**.
2. Select an activity.
3. Hold **MENU**.
4. Select **Navigate** > **Last MOB**.
   Navigation information appears.

Sharing a Location From a Map Using the Garmin Connect™ App

NOTICE

It is your responsibility to use discretion when sharing location information with others. Always ensure you are aware of and comfortable with the individual with whom you share location information.

NOTE: This feature is available only if your course-compatible Garmin device is connected to an iPhone® device using Bluetooth technology.

You can share location information and data from Apple® Maps to your compatible Garmin device.

1. From Apple Maps, select a location.
2. Select > .
3. If necessary, from the Garmin Connect app, select the Garmin device.

   A notification appears in the Garmin Connect app indicating that the location in now available on your device (*Starting a GPS Activity From a Shared Location*, page 25).

Starting a GPS Activity From a Shared Location

You can use the Garmin Connect app to share a location from Apple Maps to your watch, and navigate to that location (*Sharing a Location From a Map Using the Garmin Connect™ App*, page 25).

1. When you receive the location notification on your watch, select ✓.

   Your watch displays location information.

   TIP: The location is saved to your watch. To view the location later, press **ENTER**, and select **Navigate** > **Saved Locations**.
2. Select **Go To**, and choose an activity.
3. Follow the on-screen instructions to proceed to your destination.

Navigating to a Shared Location During an Activity

This feature is designed for activities using GPS. If GPS is turned off for your activity, you can view the location later.

TIP: The location is saved to your watch. To view the location later, press **ENTER**, and select **Navigate** > **Saved Locations**.

You can receive shared locations on your watch and navigate to those locations (*Sharing a Location From a Map Using the Garmin Connect™ App*, page 25).

1. Start a GPS activity.

   Your watch displays a notification indicating the name of a shared location.
2. Select ✓ to navigate to the shared location.
3. Follow the on-screen instructions to proceed to your destination.

Stopping Navigation

1. While navigating during an activity, hold **MENU**.
2. Select the destination.

   Destination details appear.
3. Press **ENTER**.
4. Select **Stop Navigation**.

Navigation to your destination stops, but your activity remains active.

Courses

WARNING

This feature allows users to download courses created by other users. Garmin makes no representations about the safety, accuracy, reliability, completeness, or timeliness of courses created by third parties. Any use or reliance on courses created by third parties is at your own risk.

You can send a course from your Garmin Connect account to your device. After it is saved to your device, you can navigate the course on your device.

You can follow a saved course simply because it is a good route. For example, you can save and follow a bike friendly commute to work.

You can also follow a saved course, trying to match or exceed previously set performance goals. For example, if the original course was completed in 30 minutes, you can race against a Virtual Partner® trying to complete the course in under 30 minutes.

Creating and Following a Course on Your Device

1. From the watch face, press **ENTER**.
2. Select an activity.
3. Hold **MENU**.
4. Select **Navigate** > **Courses** > **Create New**.
5. Enter a name for the course, and select ✔.
6. Select **Add Location**.
7. Select an option.
8. If necessary, repeat steps 6 and 7.
9. Select **Done** > **Do Course**.

   Navigation information appears.
10. Press **ENTER** to begin navigation.

Creating a Round-Trip Course

The device can create a round-trip course based on a specified distance and direction of navigation.

1. From the watch face, press **ENTER**.
2. Select **Run** or **Bike**.
3. Hold **MENU**.
4. Select **Navigate** > **Round-Trip Course**.
5. Enter the total distance for the course.
6. Select a direction heading.

   The device creates up to three courses. You can press **DOWN** to view the courses.
7. Press **ENTER** to select a course.
8. Select an option:
   - To begin navigation, select **Go**.
   - To view the course on the map and pan or zoom the map, select **Map**.
   - To view a list of turns in the course, select **Turn By Turn**.
   - To view an elevation plot of the course, select **Elevation Plot**.
   - To save the course, select **Save**.
   - To view a list of ascents in the course, select **View Climbs**.

Creating a Course on Garmin Connect

Before you can create a course on the Garmin Connect app, you must have a Garmin Connect account (,).

1. From the Garmin Connect app, select •••.
2. Select **Training & Planning** > **Courses** > **Create Course**.
3. Select a course type.
4. Follow the on-screen instructions.
5. Select **Done**.

   NOTE: You can send this course to your device (*Sending a Course to Your Device*, page 27).

Sending a Course to Your Device

You can send a course you created using the Garmin Connect app to your device (*Creating a Course on Garmin Connect*, page 27).

1. From the Garmin Connect app, select •••.
2. Select **Training & Planning** > **Courses**.
3. Select a course.
4. Select .
5. Select your compatible device.
6. Follow the on-screen instructions.

Viewing or Editing Course Details

You can view or edit course details before you navigate a course.

1. From the watch face, press **ENTER**.
2. Select an activity.
3. Hold **MENU**.
4. Select **Navigate** > **Courses**.
5. Select a course.
6. Select an option:
   - To begin navigation, select **Do Course**.
   - To view the course on the map and pan or zoom the map, select **Map**.
   - To begin the course in reverse, select **Do Course in Reverse**.
   - To view an elevation plot of the course, select **Elevation Plot**.
   - To change the course name, select **Name**.
   - To edit the course path, select **Edit**.
   - To delete the course, select **Delete**.

Projecting a Waypoint

You can create a new location by projecting the distance and bearing from your current location to a new location.

NOTE: You may need to add the Project Wpt. app to the activities and apps list.

1. From the watch face, press **ENTER**.
2. Select **Project Wpt.**.
3. Press **UP** or **DOWN** to set the heading.
4. Press **ENTER**.
5. Press **DOWN** to select a unit of measure.
6. Press **UP** to enter the distance.
7. Press **ENTER** to save.

The projected waypoint is saved with a default name.

Navigation Settings

You can customize the map features and appearance when navigating to a destination.

Customizing Navigation Data Screens

1. Hold **MENU**.
2. Select **Navigation** > **Data Screens**.
3. Select an option:
   - Select **Map** > **Status** to turn on or off the map.
   - Select **Map** > **Data Field** to turn on or off a data field that shows routing information on the map.
   - Select **Elevation Plot** to turn on or off the elevation plot.
   - Select a screen to add, remove, or customize.

Setting Up a Heading Bug

You can set up a heading indicator to display on your data pages while navigating. The indicator points to your target heading.

1. Hold **MENU**.
2. Select **Navigation** > **Heading Bug**.

Setting Navigation Alerts

You can set alerts to help you navigate to your destination.

1. Hold **MENU**.
2. Select **Navigation** > **Alerts**.
3. Select an option:
   - To set an alert for a specified distance from your final destination, select **Final Distance**.
   - To set an alert for the estimated time remaining until you reach your final destination, select **Final ETE**.
   - To set an alert when you stray from the course, select **Off Course**.
4. If necessary, select **Status** to turn on the alert.
5. If necessary, enter a distance or time value, and select ✔.

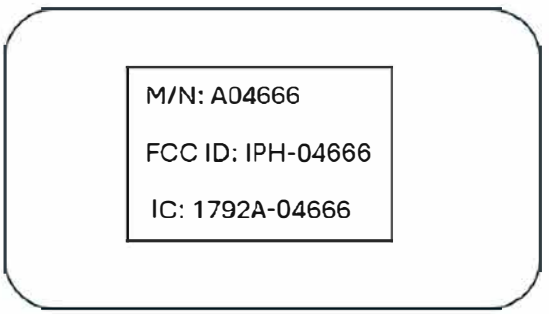
Specifications

Battery type	Rechargeable, built-in lithium-ion battery
Water rating	20 ATM[1] Dive (EN 13319)[2]
Decompression model	Bühlmann ZHL-16C
Operating and storage temperature range	From -20° to 45°C (from -4° to 113°F)
Underwater operating temperature range	From 0° to 40°C (from 32° to 104°F)
USB charging temperature range	From 0° to 45°C (from 32° to 113°F)
European Union (EU) wireless frequencies (power)	2.4 GHz @ 15 dBm maximum
EU SAR values	0.006 W/kg limb, 0.006 W/kg torso
Depth sensor	Accurate from 0 m to 200 m (0 ft. to 656 ft.) complying with EN 13319 Resolution (m): 0.1 m until 99.9 m, 1 m at 100 m Resolution (ft.): 1 ft.
Inspection interval	Inspect parts before each use for damage. Replace parts as needed.[3]

Viewing E-Label Regulatory and compliance Information

The label for this device is provided electronically. The e-label may provide regulatory information, such as identification numbers provided by the FCC or regional compliance markings, as well as applicable product and licensing information.

1. Hold **Menu.**
2. From the system menu, select **About.**
3. Scroll the "about" page to display the following information.



4. The above information is programmed by Garmin in such a manner that third-parties cannot modify it.
   a) "No special accessories or supplemental plug-ins (e.g., installation of a SIM/USIM card) are required to access the information. Access to the information is provided without special codes, accessories, or permissions beyond the normal security protection to unlock the screen, sign-in page, or overall product access."
5. The above M/N, FCC ID, and IC numbers can be found printed on the product packaging.

[1] The device withstands pressure equivalent to a depth of 200 m. For more information, go to www.garmin.com/waterrating.
[2] Designed to comply with CSN EN 13319.
[3] Aside from normal wear and tear, performance is not affected by aging.