GARMIN

GPS 152H

owner's manual

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Introduction

⚠ Warning

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

This manual includes information for the GPS 152H.

Tips and Shortcuts

- Press **Page** to return to a main page from a submenu page. Continue to press **Page** to scroll through the main pages.
- Press **Menu** from any of the main screens to access advanced settings. Press **Menu** twice to display the Settings Menu.
- Press and release the **Power** key to adjust the display settings.

Manual Conventions

In this manual, when you are instructed to *select* an item, you should highlight the item, and press **Enter**. When small arrows (>) appear in the text, they indicate that you should highlight a series of items on the screen using the **Rocker**, and press the **Enter** key after each item. For example, if you see, "Select **Trk** > **Record Mode**," you should:

1. Use the **Rocker** to highlight **Trk**. Press **Enter**.
2. Use the **Rocker** to highlight **Record Mode**. Press **Enter**.

Product Registration

Help us better support you by completing our online registration today. Go to http://my.garmin.com. Keep the original sales receipt, or a photocopy, in a safe place.

Contact Garmin

Contact Garmin Product Support if you have any questions while using your unit. In the USA, go to www.garmin.com/support, or contact Garmin USA by phone at (913) 397.8200 or (800) 800.1020.

In the UK, contact Garmin (Europe) Ltd. by phone at 0808 2380000.

In Europe, go to www.garmin.com/support and click **Contact Support** for in-country support information, or contact Garmin (Europe) Ltd. by phone at +44 (0) 870.8501241.

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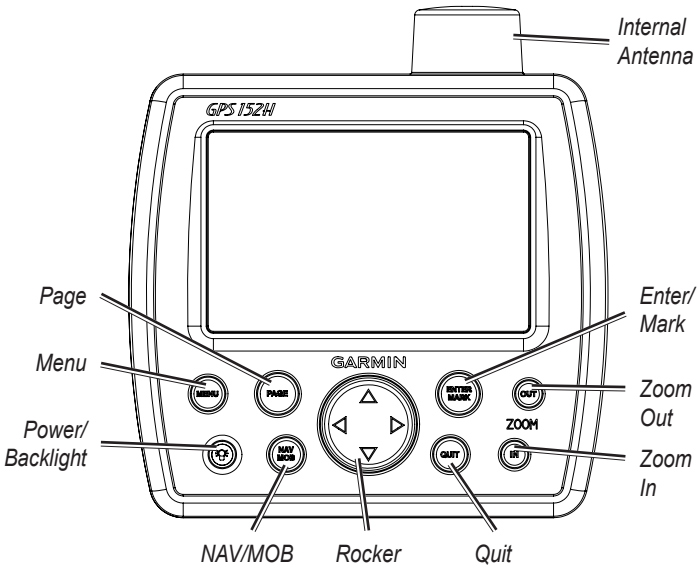
Getting Started



Using the Keypad

Power/Backlight—Press and hold to turn the unit on or off; press and release to adjust the backlight and day and night modes.

Rocker—Press up, down, left, or right to move through menus, highlight fields, and enter data.

Enter/Mark—Press to select a highlighted item or mark a waypoint.

Menu—Press to access additional settings and configuration options. Press twice to display the Settings menu.

Page—Press to cycle through the home pages.

NAV/MOB—Press and release to display the Navigation menu. Press and hold to navigate to a man overboard (MOB) location.

Quit—Press to return to the previous page. Press when entering data to cancel the action and restore the previous value.

Zoom Out—Press to zoom out.

Zoom In—Press to zoom in.

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Turning the Unit On or Off

To turn on the unit, press and release the **Power** key. When the Warning screen appears, press **Enter**.

To turn off the unit, press and hold the **Power** key.

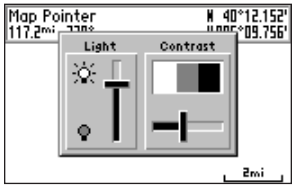
Acquiring GPS Satellite Signals

When you turn on the GPS 152H, it must collect satellite data and establish the current location. When the unit acquires satellite signals, the signal strength bars momentarily appear on the Satellites page. When the unit loses satellite signals, the bars disappear and the position icon displays a flashing question mark.

For more information about GPS, visit the Garmin Web site at www.garmin.com/aboutGPS.

Adjusting the Backlight and the Contrast

1. Press and release the **Power** key.
2. Use the **Rocker** to adjust the light and the contrast.



To cycle the backlight from your adjusted setting to Off, and to maximum setting, continue to press and release the **Power** key.

Entering Text in a Field

1. Use the **Rocker** to highlight the field you want to change. Press **Enter**.
2. Press the left arrow on the **Rocker** to clear the field.
3. Press the up and down arrows on the **Rocker** until the desired character appears. Press **Enter**.
4. Press the right arrow on the **Rocker** to enter the next character.
5. Repeat steps 3 and 4 until the text is complete.
6. Press **Enter**.

Use the **Rocker** to highlight other fields on the same screen.

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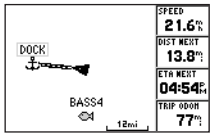
Navigation

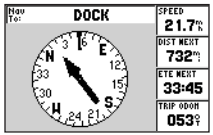
Main Pages

The GPS 152H has five Main pages.

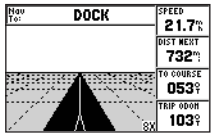
To cycle through the Main pages, press **Page**.



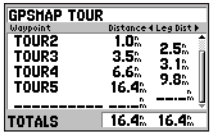
Map Page



Compass Page



Highway Page



Active Route Page

Numbers Page

Creating Waypoints

Waypoints are locations you record and store in the GPS 152H. You can store up to 3,000 waypoints with a user-defined symbol, name, and depth for each waypoint.

Marking Your Present Location as a Waypoint:

1. From any Main page, press and hold **ENTER/MARK** until the New Waypoint screen appears.
2. To change the default symbol, name, or depth of the waypoint, use the **Rocker** to highlight the field you want to change. Enter text as described on page 2.
3. Select **OK** to save the waypoint.

Creating a Waypoint by Entering Grid Coordinates

1. From any Main page, press **Menu** twice.
2. Highlight **Wpt**, and press **Menu**.
3. Select **New Waypoint**.
4. Use the **Rocker** to highlight the coordinates field.
5. To change the default symbol, name, or depth of the waypoint, use the **Rocker** to highlight the field you want to change. Enter text as described on page 2.
6. Select **OK** to save the waypoint.

Creating a Waypoint While on the Map Page

1. From the Map page, use the **Rocker** to move the pointer (↖) to the location where you want to create a waypoint.
2. Press and hold **Enter/Mark** until the New Waypoint screen appears.

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3. To change the default symbol, name, or depth of the waypoint, use the **Rocker** to highlight the field you want to change. Enter text as described on page 2.
4. Select **OK** to save the waypoint.

Editing a Waypoint on the Map Page

1. From the Map Page, use the **Rocker** to move the pointer ( ). Highlight the waypoint you want to edit.
2. Press **Enter**.
3. Use the **Rocker** to edit text as described on page 2.

Editing a Waypoint from a List of Waypoints

1. From any Main page, press **Menu** twice.
2. Highlight **Wpt**.
3. Waypoints can be listed by name (alphabetically) or by distance from your present location. Highlight **By Name** or **Nearest**.
4. Select the waypoint you want to edit.
5. Edit text as described on page 2.

Deleting a Waypoint

1. From any Main page, press **Menu** twice.
2. Highlight **Wpt**.
3. Highlight **By Name** or **Nearest**.
4. Select the waypoint you want to delete.
5. Select **Delete** > **OK**.

Creating Waypoint Proximity Alarms

You can define an alarm radius around saved waypoints you want to avoid.

1. From any Main page, press **Menu** twice.
2. Highlight **Wpt**.
3. Highlight **Proximity**.
4. Select the Proximity Alarm field, and select **On**.
5. Select the first empty waypoint field.
6. Select the waypoint for which you want to define an alarm radius.
7. Optionally, edit text as described on page 2 to change the waypoint name or to change the symbol, and then select **OK**.
8. Select the distance field, and enter the radius of the circle around the waypoint to create an alarm when you approach the waypoint.

   To add additional proximity alarms, press **Menu**, select **Add Waypoint**, and repeat steps 5 through 8.

To delete all proximity alarms:

1. From any Main page, press **Menu** twice.
2. Highlight **Wpt**.
3. Highlight **Proximity**.
4. Press **Menu**, and select **Clear All** > **OK**.

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Navigating to a Destination

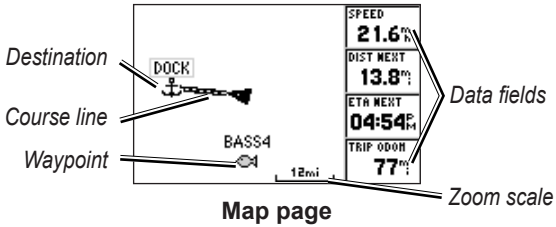
To navigate to a waypoint:

1. From any of the Main pages, press **NAV/MOB**.
2. Select **Go To Waypoint**.
3. Highlight **By Name** or **Nearest**.
4. Select the waypoint to which you want to navigate.
5. Select **Go To**. Use the Map page, the Compass page, the Highway page, or the Numbers page to navigate to your destination.

To navigate to a point on the map:

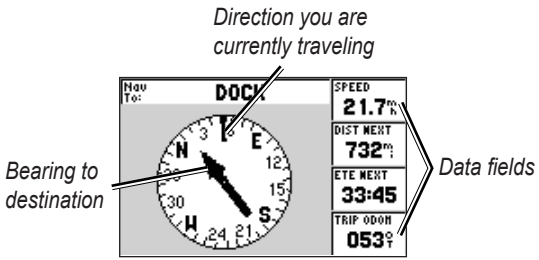
1. From the Map page, use the **Rocker** to move the pointer (↖) to your destination.
2. Press **NAV/MOB**.
3. Select **Go To Map Point**. Use the Map page, the Compass page, the Highway page, or the Numbers page to navigate to your destination.

Map page—shows your location (▲), your destination (when zoomed out far enough), a course line indicating the shortest path to your destination, and any saved waypoints within the scale of your map.



Map page

Compass page—contains a rotating compass ring that indicates the bearing (course over ground) to your destination. If the pointer points toward the top of the compass, you are traveling directly toward your destination.



Compass page

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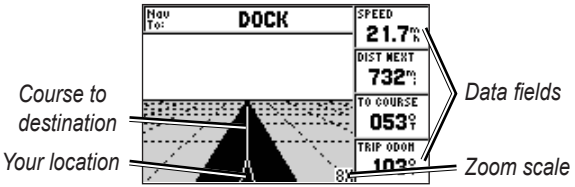
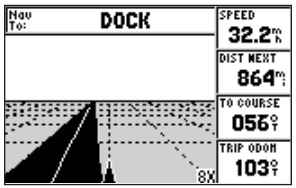
Highway page—provides a 3D view with your location and the course to your destination.



Highway page (on course)

The Highway page also indicates if you have veered off course.



Highway page (off course)

Numbers page—displays one or four configurable data fields.

Numbers page

To display only one data field, press **Menu** and select **Big Numbers**.

NOTE: To change which data fields are shown, see page 10.

To navigate to a man overboard (MOB) location:

1. From any of the Main pages, press and hold **NAV/MOB**.
2. Select **Yes**.

To stop navigating:

From any page, press **NAV/MOB** and select **Stop Navigation**.

Creating, Navigating, and Editing Routes

You can create up to 50 routes, with up to 30 waypoints per route.

Creating a Route from a List of Waypoints

1. From any Main page, press **Menu** twice.
2. Highlight **Rte**, and press **Menu**.
3. Select **New Route**.

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4. Select the first blank field in the list of waypoints.
5. Select a waypoint from the **By Name** list or the **Nearest** list.
6. Select **OK**.
7. Continue to select waypoints until you have selected the last point on the route.
8. Press **Quit** to save the route.

To begin navigating the route, press **NAV/MOB** and select the route.

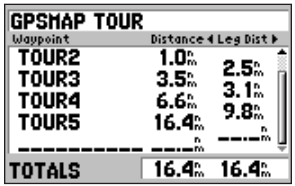
Creating a Route on the Map Page

1. From the Active Route page, press **Menu**.
2. Select **Create on Map**.
3. Select the first blank field in the list of waypoints.
4. Move the pointer (↖) to the starting point of the route, and press **Enter**.
5. Optionally, edit text as described on page 2 to name the waypoint or to change the symbol, and then select **OK**.
6. Continue to create the route waypoints until the route is complete.
7. Press **Menu**, and select **Stop Editing Route**.
8. Optionally, edit text as described on page 2 to name the route.
9. Press **Quit** to save the route.

To begin navigating a saved route:

1. Press **NAV/MOB**.
2. Select **Follow Route**.
3. Select the route you want to take, and then select **Activate**.
4. Use the Map page, Compass page, Highway page, Numbers page (pages 5–6), or Active Route page to navigate the route.

While navigating a route, you can view the Active Route page, which lists all the waypoints on the route.



Active Route page

Editing a Route

You can insert new waypoints, remove waypoints, and reverse existing routes.

To insert a new waypoint on a route:

1. From any Main page, press **Menu** twice.
2. Highlight **Rte**.
3. Select the route you want to edit.

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4. Highlight the waypoint that is before the waypoint you want to add, and press **Menu**.
5. Select **Insert Waypoint**.
6. Select a waypoint from the **By Name** list or the **Nearest** list.
7. Select **OK**.
8. Continue to add waypoints, if necessary.
9. Press **Quit** to save the route.

To remove a waypoint on a route:

1. From any Main page, press **Menu** twice.
2. Highlight **Rte**.
3. Select the route you want to edit.
4. Highlight the waypoint you want to delete, and press **Menu**.
5. Select **Remove Waypoint**.

Note: The waypoint is removed from the route. It is not deleted.

To invert an existing route:

1. From any Main page, press **Menu** twice.
2. Highlight **Rte**.
3. Select the route you want to invert.
4. Highlight any waypoint, and press **Menu**.
5. Select **Invert**.

To delete a route:

1. From any Main page, press **Menu** twice.
2. Highlight **Rte**.
3. Highlight the route you want to delete, and press **Menu**.
4. Select **Delete Route**.

To delete all saved routes:

1. From any Main page, press **Menu** twice.
2. Highlight **Rte**, and press **Menu**.
3. Select **Delete All**.

Using Tracks

A track is a recording of your path. The track currently being recorded is the active track. An active track can be saved. To adjust track settings, see page 12.

Turning Tracks On or Off

1. From any Main page, press **Menu** twice.
2. Highlight **Trk** > **Active**.
3. Select **Record Mode**.
   - **Off**—does not record a track log.
   - **Fill**—record a track log until the track memory is full.
   - **Wrap**—continuously records a track log, replacing the oldest track data with new data.

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Saving a Track

1. From any Main page, press **Menu** twice.
2. Highlight **Trk**.
3. Press **Menu**, and select **Save**.
4. Select the time, the date, or the **Entire Log** you want to save. Optionally, you can edit the name of the track.

Navigating a Saved Track

1. Press **NAV/MOB**.
2. Select **Follow Track**.
3. Select the track you want to take.
4. Select **Original** to follow the track as it was originally recorded, or select **Reverse** to follow the track in the opposite direction.

Deleting a Saved Track

1. From any Main page, press **Menu** twice.
2. Highlight **Trk** > **Saved**.
3. Highlight the track you want to delete, and press **Menu**.
4. Select **Delete Track**.

Deleting All Saved Tracks

1. From any Main page, press **Menu** twice.
2. Highlight **Trk** > **Saved**.
3. Press **Menu**.
4. Select **Delete All**.

Clearing the Active Track

1. From any Main page, press **Menu** twice.
2. Highlight **Trk**.
3. Press **Menu**.
4. Select **Clear** > **OK**.

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Settings

You can customize a Main page by pressing **Menu** while on the page.

You can access the Settings menu from any Main page by pressing **Menu** twice.

Customizing the Main Pages

The following table indicates the options that can be viewed by pressing **Menu** from each of the five Main pages:

	Map Page	Compass Page	Highway Page	Active Route Page	Numbers Page
Add Waypoint				X	
Big Numbers	X	X	X		X
Change Data Fields	X	X	X		X
Configure Map	X				
Create on Map				X	
Edit on Map				X	
Full Screen Map	X				
Hide Tracks			X		
Invert				X	
Loran TD	X				
Measure Distance	X				
Plan Route				X	
Re-evaluate				X	
Remove Waypoint				X	
Stop Simulator		X			

Big Numbers—increases the size of the data fields but reduces the number of data fields.

Change Data Fields—allows you to select different data fields to be displayed on the main pages. Data fields selected for one Main page are displayed on all Main pages (except the Active Route page).

To change data fields:

1. From any Main page (except the Active Route page), press **Menu**.
2. Select **Change Data Fields**. One of the field names is highlighted.

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3. Select a data field to change.
4. Select the new field you want shown.
   - **Full Screen Map On** (or **Off**)—hides or shows the data fields from all main pages (except the Active Route page).
   - **Loran TD On** (or **Off**)—allows you to convert GPS coordinates to Loran (Long Range Navigation) TDs. This system is no longer a primary source of maritime navigation and should not normally be used. Refer to the U.S. Coast Guard site at www.navcen.uscg.gov/loran/default.htm for additional information.
   - **Configure Map**—takes you to the Map tab (see page 13) of the Settings menu.
   - **Measure Distance**—allows you to measure the distance and bearing between two points on the Map Page.

To measure the distance and bearing between two points:

1. From the Map page, press **Menu** and select **Measure Distance**.
2. Use the **Rocker** to move the pointer (indicated by "ENT REF") to the point you want to measure from, and press **Enter**.
3. Move the pointer to the point to which you want to measure. The bearing, the distance, and the grid coordinates are displayed along the top of the screen.

Start Simulator—turns the GPS receiver off for use indoors or for practice using the chartplotter (page 23).

Hide Tracks—shows or hides tracks (page 8) on the Highway page.

Create on Map—creates a route as described on page 7. This option is available only when you are not currently navigating a route.

Invert—reverses a route (page 8).

Plan Route—allows you to enter the boat speed, the fuel flow and the departure time and date when planning a route.

Re-evaluate—recalculates and reactivates the current route data.

Using the Settings Menu

The Settings menu can be viewed from any of the Main pages by pressing **Menu** twice.

Using the Waypoints Tab

From any Main page, press **Menu** twice and highlight **Wpt**.

See page 3 for more information concerning creating and editing waypoints and proximity alarms.

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Using the Routes Tab

From any Main page, press **Menu** twice and highlight **Rte**.

See page 6 for more information concerning creating, editing, and deleting routes.

Using the Tracks Tab

From any Main page, press **Menu** twice and highlight **Trk**.

See page 8 for more information concerning showing, saving, and deleting tracks.

Record Interval defines the frequency at which the track plot is recorded. Recording plots more frequently is more accurate but fills the track log faster.

To set the active track interval:

1. From any Main page, press **Menu** twice and highlight **Trk**.
2. Highlight **Active**, and select **Interval**.
   - **Distance**—records the track based on a distance between points, as defined by the Value field.
   - **Time**—records the track based on a time interval, as defined by the Value field.
   - **Resolution**—records the track based on a variance from your course. This setting is recommended for the most-efficient use of memory. The value field defines the maximum error allowed from the true course before recording a track point.

Using the Trip Tab

To view trip information from any Main page, press **Menu** twice and highlight **Trip**. Press **Menu** to reset the trip, the odometer, the maximum speed, or all fields to zero.

Resetting trip data resets all fields to zero except the Maximum Speed field and the Odometer field.

Using the Time Tab

The Time tab allows you to set the time options.

To set time settings from any Main page, press **Menu** twice and highlight **Time**.

- **Time Format**—select **12-hour** or **24-hour** time format.
- **Time Zone**—set the time zone you want displayed for time readings.
- **Daylight Savings Time**—select **Off**, **On**, or **Auto**. The auto setting automatically turns daylight saving time on or off, depending on the time of year.
- **Current Time and Date**—manually set the time and date.

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Using the Page Tab

The Page tab allows you to select or deselect the main pages. A check mark indicates that the page will be displayed when you press **Page**.

From any Main page, press **Menu** twice and highlight **Page**.

To select a preset page combination, press **Menu**.

- **Enable All Pages**—selects all pages.
- **Basic Trackplotter**—selects the Map page only.
- **Nav Tools Only**—selects the Compass, Highway, and Active Route pages only.

Press **Jump To** to display the selected page.

Using the Map Tab

The Map tab allows you to select preferences one the map including map detail, map orientation and font size.

From any Main page, press **Menu** twice and highlight **Map**.

From any of the subheadings within the Map tab, select **Show Map** to view the Map page while you are configuring the map.

To restore map defaults:

1. From any Main page, press **Menu** twice and highlight **Map**.
2. Press **Menu**.
   - **Restore Defaults**—restores the currently selected map setting to factory default.
   - **Restore All Map Defaults**—restores all map settings to factory default.

Map Tab > General Subheading

- **Detail**—adjusts the amount of detail shown on the map at different zoom levels.
- **Orientation**—changes the perspective of the map display.
  - **North Up**—sets the top of the map display to a north heading.
  - **Track Up**—sets the map display to the current track heading.
  - **Course Up**—sets the map so the direction of navigation is always up. The heading line appears vertically on the screen if shown.
- **Auto Zoom**—automatically adjusts the map scale to a lower scale as you approach your destination.

Map Tab > Source Subheading

Not applicable to this unit.

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Map Tab > Points Subheading

- **Text**—sets the screen size of the name of the waypoint, the active route, the marine navaid, or the geo point on the Map page and the Highway page.
- **Zoom**—sets the maximum scale at which the feature should appear on the Map page.

Map Tab > Other Subheading

- **Acc. Circle (**Accuracy Circle)—represents the approximate accuracy of the unit. Your location is indicated in the center of the circle.
- **Heading Line**—draws an extension line from the bow of the boat in the direction of travel.
- **Bearing Line**—shows the bearing from your current location to a destination waypoint. Selecting a distance sets the scale at which the bearing line will appear on the screen.
- **Course Line**—shows a navigation line from the point where navigation was initiated to a destination waypoint. Selecting a distance sets the scale at which the course line will appear on the screen.

Using the Systems Tab

From any Main page, press **Menu** twice and highlight **Page**.

- **Beeper**—selects when the unit makes audible sounds.
- **Speed Filter**—averages the speed readings of your boat over a period of time for smoother speed values. You can select **Auto**, or select **On** to specify the number of seconds you want the filter to average.
- **Language**—selects the system language.
- **System Mode**—allows you to select simulator mode (page 23) or normal mode.

Using the Units Tab

The Units tab allows you set units of measure for various values, the map datum, and the heading reference.

From any Main page, press **Menu** twice and highlight **Units**.

- **Position Format**—changes the coordinate style in which a given location reading appears. Do not change the position format unless you are using a map or chart that specifies a different position format.
- **Map Datum**—changes the coordinate system in which the map is structured. Do not change the map datum unless you are using a map or chart that specifies a different map datum.

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- **Heading**—selects the reference used in calculating heading information.
  - **Auto Mag Var**—automatically sets the magnetic declination for your location.
  - **True**—sets true north as the heading reference.
  - **Grid**—sets grid north as the heading reference (000º).
  - **User Mag Var**—allows you to set the magnetic variation value.
- **Dst, Spd, & Alt**—defines the units of measure for distance, speed, and altitude in nautical, statute, or metric formats.
- **Dpth**—defines the units of measure for depth.
- **Temp**—defines the units of measure for temperature.

Using the Communications Tab

The Communications tab allows you to set the input/output format used when connecting your unit to other devices, such as NMEA 0183 devices, a PC, or another GPS 152H.

From any Main page, press **Menu** twice and highlight **Com**.

- **Garmin Data Transfer**—supports the input or output of Garmin-proprietary data for communicating with Garmin software such as MapSource®. There are eleven Transfer Modes to choose from: Host, Request Almanac, Request Proximity, Request Routes, Request Tracks, Request Waypoints, Send Almanac, Send Proximity, Send Routes, Send Tracks, and Send Waypoints.
- **Other DGPS** (differential GPS)—(input only) provides interfacing capabilities for 3rd party DGPS receivers.
- **RTCM In/NMEA Out**—allows DGPS input using a standard RTCM format, and also provides NMEA 0183 version 2.3 output.
- **NMEA In/NMEA Out**—supports the input and output of standard NMEA 0183 data, and provides sonar NMEA input support for the DPT, MTW, and VHW sentences (when connected to a sonar transducer).
- **None**—provides no interfacing capabilities.
- **Garmin DGPS**—used to connect the GPS 152H with a Garmin DGPS beacon receiver.

When **Garmin DGPS** is selected, additional fields are provided to control a differential beacon receiver directly from your GPS 152H. You can set the unit to automatically scan for the DGPS beacon signal or you can enter the beacon frequency and bit rate.

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To automatically scan for a frequency:

1. Select **Garmin DGPS** in the Serial Data Format field.
2. Select **Scan** in the Beacon field. The unit begins scanning.

   If it is necessary to restart the scan, press **Menu** and select **Restart Scan**.

To manually enter the frequency and bit rate:

1. Select **Garmin DGPS** in the Serial Data Format field.
2. Select **User** in the Beacon field.
3. Enter the desired frequency and bit rate. The Status field indicates one of the following:
   - **Tuning**—attempting to tune to the specified frequency and bit rate.
   - **Scanning**—automatically scanning through the frequencies and bit rates.
   - **Receiving**—receiving DGPS signal and ready for operation.
   - **Check Wiring**—not making a connection with a DGPS receiver.

   When the unit is receiving a DGPS signal, the SNR (Signal to Noise Ratio) and Distance fields contain data. The SNR range is 0dB to 30dB, with 30dB being the best. The Distance field may or may not show data, depending upon the signal being broadcast from the DGPS site.

Using the Alarms Tab

You can set the unit to sound an audible alarm when certain conditions are met. By default, all alarms are turned off except the arrival alarm.

From any Main page, press **Menu** twice and highlight **Alrm**.

- **Anchor Drag**—sets an alarm to sound when you exceed a specified drift distance.
- **Arrival**—sets an alarm to sound when you are within a specified distance or time from a destination waypoint. Select **Dist** (distance) or **Time** to set whether the arrival alarm triggers on distance to arrival or time to arrival.
- **Off Course**—sets an alarm to sound when you are off course by a specified distance.
- **Clock**—sets an alarm using the system (GPS) clock. The unit must be on for the clock alarm to work.
- **Shallow Wtr**—sets an alarm to sound when the depth is less than the specified value.
- **Deep Water**—sets an alarm to sound when the depth is greater than the specified value.

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Using the Celestial Tab

The Celestial tab shows information about sunrise, sunset, moonrise, moonset, the moon phase, and the approximate sky view location of the sun and moon. By default, the unit shows celestial information for the present date and time.

From any Main page, press **Menu** twice and highlight **Celes**.

To select a date and time for which to view celestial information, select the date or time field and enter text as described on page 2.

If your orientation is set to North Up and you want to quickly switch to Track Up while viewing the Celestial screen, press **Menu** and select **Track Up**.

Using the GPS Tab

The GPS tab displays GPS satellite positions and signal strength bars.

From any Main page, press **Menu** twice and highlight **GPS**.

Receiver status is indicated by the bar across the top of the screen.

- **Looking For Satellites**
- **AutoLocate®**—The receiver does not know your previous location. This process can take up to five minutes.
- **Acquiring Satellites**—The receiver is looking for, and collecting, data from satellites visible at the last known or initialized position, but has not collected enough data to calculate a fix.
- **2D Navigation**—At least three satellites with good geometry have been acquired and a two-dimensional position fix (latitude and longitude) is being calculated.
- **3D Navigation**—At least four satellites with good geometry have been acquired and your position is now being calculated in latitude, longitude and altitude.
- **Poor Satellite Reception**—The receiver is no longer tracking enough satellites for a 2D or 3D fix.
- **Receiver Not Usable**—The receiver is unusable, possibly due to interference or abnormal satellite conditions. Turn the unit off and back on to reset.
- **Simulating Navigation**—The receiver is in simulator mode (page 23).

GPS accuracy information is indicated along the bottom of the screen.

- **Accuracy**—indicates the approximate accuracy of the unit.
- **DGPS Rcvr**—indicates the status of the DGPS receiver (page 16).

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- **DOP** (Dilution of Precision)—displays DOP, which is an indication of satellite geometry quality measured on a scale of one to ten. Lower numbers indicate higher quality signals.
- **DGPS SNR**—displays the SNR when the unit is receiving a DGPS signal. The SNR range is 0dB to 30dB, with 30dB being the best.

WAAS (Wide Area Augmentation System) can provide more-accurate GPS position information in North America. However, when using WAAS, the device takes longer to acquire satellites.

To disable WAAS:

1. From any Main page, press **Menu** twice and highlight **GPS**.
2. Press **Menu**, and select **Disable WAAS**.

When your unit is turned on, it starts the search for your location based on where you were when it was turned off. AutoLocate is used by the GPS 152H to find your location when the unit does not know your previous location.

To use AutoLocate to find your location:

1. From any Main page, press **Menu** twice and highlight **GPS**.
2. Press **Menu**, and select **AutoLocate**.

You can manually enter your altitude when in 2D navigation or simulator mode. Any altitude entered will be automatically calculated when the unit is in 3D navigation mode.

To set 2D altitude:

1. From any Main page, press **Menu** twice and highlight **GPS**.
2. Press **Menu**, and select **2D Altitude**.

Using the Tide Tab

From any Main page, press **Menu** twice and highlight **Tide**.

The Tide tab shows a chart that displays tide station information in a 24 hour span, starting at midnight station time. You can select different dates.

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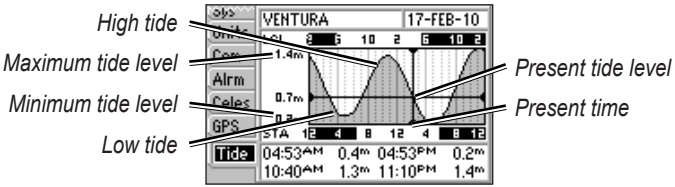
The top of the screen displays the tide station. The top of the chart shows a 24-hour block of local time (LCL) for your position, with the reported station time (STA) appearing at the bottom. The solid, light vertical lines are in 4-hour increments, and the light, dotted vertical lines are in 1-hour increments. A dark, vertical line indicates the current time.



The four data fields below the chart indicate event times and levels at which the tide changes.

To view tide information for a different date:

1. From any Main page, press **Menu** twice and highlight **Tide**.
2. Press **Menu**, and select **Modify Station Opt**.
3. Select the Date field and enter text as described on page 2.

To select the tide station nearest your location:

1. From any Main page, press **Menu** twice and highlight **Tide**.
2. Press **Menu**, and select **Nearest Tide Station**. The name of the nearest tide station appears along the top of the screen.

   Note: You must be within 100 nautical miles of a tide station to use this feature.

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Appendix

Specifications

Physical Specifications

Size : W × H × D: 5.3 in. × 4.9 in. × 2.4 in. (13.4 cm × 12.5 cm × 6.1 cm)

Weight: 1 lb. (454 g)

Display: 4.0 in. diagonal (10.2 cm) high-contrast, 4-level gray FSTN with adjustable backlighting (160 x 100 pixels)

Case: Fully gasketed, high-impact plastic alloy, waterproof to IEC 529 IPX7 standards.

Temp. Range: From 5ºF to 131ºF (from -15ºC to 55ºC)

Compass-Safe Distance: 12 in. (30 cm)

Performance

Receiver:

Differential-ready 12 parallel channel WAAS-capable receiver:

Acquisition Times: (Average acquisition times for a stationary receiver with a clear view of the sky)

Warm*: Approximately 15 seconds
Cold**: Approximately 45 seconds
AutoLocate: Approximately 2 minutes

***Warm:** your unit is at or near the last location where you recently acquired satellites.
****Cold:** your unit has moved by more than about 500 mi. (800 km) since it was turned off.

Update Rate: once per second

GPS Accuracy:

Position: <49 ft. (15 m), 95% typical
Velocity: 0.164 ft./sec (0.05 m/sec) steady state

WAAS Accuracy:

Position: <10 ft. (3 m), 95% typical
Velocity: 0.164 ft./sec (0.05 m/sec) steady state
Dynamics: 6 g

Power

Power Source: 10–40 Vdc

Usage: 5 W max at 10 Vdc

Fuse: AGC/3AG - 1.5 A

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Alarms and Messages

The unit uses an on-screen message system to alert you to unit operating characteristics. When a message appears, press **Enter** to acknowledge the message.

Alarm Clock—the alarm clock has sounded.

Anchor Drag Alarm—you have drifted out of the specified distance range.

Antenna Input Shorted To Ground—a part of the antenna wiring is crimped, broken, or contacting the chassis.

Approaching Waypoint—you are a specified alarm distance from a destination waypoint.

Arrival At Waypoint—you have arrived at the destination waypoint.

Basemap Failed Unit Needs Repair—contact your dealer or Garmin Product Support.

Database Error—contact your dealer or Garmin Product Support.

Lost Satellite Reception—the unit has lost satellite signals. Check antenna connections or try moving to a location with a clear view of the sky.

Memory (RAM) Failed Unit Needs Repair—contact your dealer or Garmin Product Support.

Memory (ROM) Failed Unit Needs Repair—contact your dealer or Garmin Product Support.

No Position—no differential correction data is available or not enough data is available to compute a DGPS position.

No Tide Stations For That Area—there are no tide stations within 100 miles of the specified point. Try another area.

Off Course Alarm—you have exceeded the specified off-course distance.

Processor Failed Unit Needs Repair—contact your dealer or Garmin Product Support.

Proximity Alarm List is Full—you have used all ten proximity waypoints.

Proximity Alarm Waypoint—you have entered the alarm radius for the proximity waypoint indicated.

Proximity Overlaps Another Proximity Waypoint—the alarm radius specified overlaps the area specified for another proximity waypoint. Adjust the distance.

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Route Already Exists: <route name>—you have entered a route name that already exists in memory. Modify the route name or delete the previous route name.

Route Does Not Exist: <route name>—the route has been renamed or removed from memory and cannot be used.

Route Is Full—you have attempted to add more than 100 waypoints to a route. Reduce the number of waypoints or create a second route.

Route Memory Is Full Can't Create Route—the maximum amount of 50 routes is already in unit memory and no additional routes can be added until existing ones are removed.

Route Truncated—an uploaded route from another device has more than 100 points. Reduce the number of points.

Running Simulator—the unit is in simulator mode.

Track Already Exists: <track name>—you have entered a saved track name that already exists in memory. Modify the track name or delete the previous track name.

Track Memory Is Full Can't Create Track—the track log memory is full. No additional track log data can be stored without deleting old data to create memory space.

Track Truncated—a complete upload track will not fit into memory. The oldest track log points were deleted to make space for the most recent data.

Transfer Complete—the unit has finished uploading or downloading information to the connected device.

Waypoint Already Exists: <waypoint name>—you have entered a waypoint name that already exists in memory. Modify the waypoint name or delete the previous waypoint name.

Waypoint Memory Is Full Can't Create Waypoint—you have used all 3000 waypoints available. Delete unwanted waypoints to make space for new entries.

Waypoint Memory Full—you have saved the maximum number of waypoints. Delete unwanted waypoints to make space for new entries.

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Using Simulator Mode

⚠ WARNING

Do not try to navigate using simulator mode because the GPS receiver is turned off. Any satellite signal strength bars shown are simulations and do not represent the strength of actual satellite signals.

Simulator mode turns the GPS receiver off for use indoors or for practice using the chartplotter. The chartplotter does not track satellites in simulator mode.

S appears in the lower-left corner of the main pages to indicate that the unit is in Simulator mode.

To turn on Simulator mode:

1. From any Main page, press **Menu** twice.
2. Select **Sys** to set speed, track control, and position.

Viewing System Information

You can view the software version and the unit ID number for your chartplotter. You may need this information to update the system software or when speaking with a Garmin Product Support Representative.

1. From any Main page, press **Menu** twice.
2. Select **Sys**, and press **Menu**.
3. Select **Software Version**.

Restoring the Original Factory Settings

Note: This procedure deletes all settings information you have entered.

1. From any Main page, press **Menu** twice.
2. Select **Sys**, and press **Menu**.
3. Select **Restore Garmin Setup**.

NMEA 0183

The following formats are supported for connection of external devices: GARMIN proprietary Differential GPS (DGPS), NMEA 0183 (version 2.3), RTCM SC-104 input (version 2.0).

Approved NMEA 0183 Sentences

GPBOD, GPBWC, GPGGA, GPGLL, GPGSA, GPGSV, GPRMB, GPRMC, GPRTE, GPVTG, GPWPL, GPXTE, and Garmin proprietary sentences PGRME, PGRMM, PGRMZ, and PSLIB.

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The GPS 152H also includes support for the WPL sentence and sonar NMEA 0183 input with support for the DPT (depth) or DBT, MTW (water temp), and VHW (water temp, speed, and heading) sentences.

If you are connected to COM2 for sonar NMEA input, the unit interface must be set to **GARMIN DGPS**, **Other DGPS** (4800 only), or **NMEA In/NMEA Out**. If connecting to COM1, the unit must be set to **NMEA In/NMEA Out** (see page 15).

Caring for the Unit

The case is constructed of high-quality materials and does not require user maintenance, except cleaning.

Cleaning the Case

Clean the unit's outer casing (except for the screen) using a cloth dampened with a mild detergent solution, and then wipe dry. Avoid chemical cleaners and solvents that may damage plastic components.

Cleaning the Screen

The lens on the screen is coated with a special anti-reflective coating that is sensitive to skin oils, waxes, and abrasive cleaners. Cleaners containing ammonia, alcohol, abrasives, or anti-grease detergents will harm the anti-reflective coating. It is important to clean the lens using an eyeglass lens cleaner (that is specified as safe for anti-reflective coatings) and a clean, lint-free cloth.

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