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GPS 72H
owner's manual

Introduction

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

Manual Conventions

When you are instructed to "press" something, press the buttons on the device. Use the rocker to select something in a list, and then press **ENTER**.

The small arrows (>) used in the text indicate that you should select a series of items in order, for example, "Press **PAGE** > **ENTER** > select **TRACKS**."

Tips and Shortcuts

• To return to the Main Menu from any page, press the **MENU** button twice.

• To extend battery life, turn off the GPS when not using the device for navigation. For more information, see page 41.

Product Registration

Help us better support you by completing our online registration. Connect to our Web site at 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 GPS 72H. 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.

Serial Number

The serial number is located on the back of the device in the lower right corner.

Optional Accessories

For a list of available accessories, go to http://buy.garmin.com.

Table of Contents

Getting Started

Internal antenna

Buttons

Display screen

Battery compartment

Serial port (under weather cap)

mini-USB port (under weather cap)

Installing the Batteries

The GPS 72H operates on two AA batteries. Use alkaline, NiMH, or lithium batteries. Use precharged NiMH or lithium batteries for best results.

To install the batteries:

1. Turn the D-ring 1/4 turn counter-clockwise, and pull the cover loose.
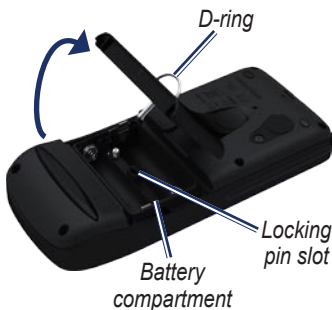
2. Insert the batteries, observing polarity.

3. Replace the battery cover.

Long-Term Battery Storage

Remove the batteries when you do not plan to use the GPS 72H for several months. Stored data is not lost when the batteries are removed.

D-ring

Locking pin slot

Battery compartment

ZOOM IN — *ZOOM OUT*
GO TO/ MOB — *PAGE*
Power — *MENU*
QUIT — *ENTER/ MARK*
Rocker
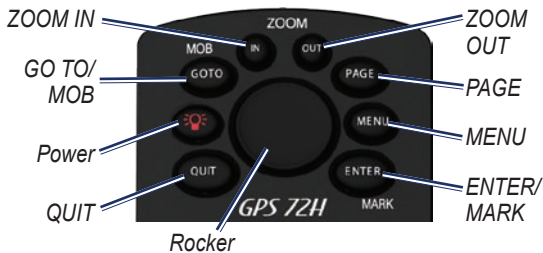
Buttons

QUIT—press to return to the previous page and cycle through the main pages in reverse order.

Power—press and hold to turn the device on or off. Press and release to adjust the backlight.

GO TO/MOB—press to begin or stop navigation to a waypoint. Press and hold (man overboard function) to store the current location and begin navigation to that point.

ZOOM IN—press to zoom the map in.

ZOOM OUT—press to zoom the map out.

PAGE—press to cycle through the main pages.

MENU—press and release to view the menu for the current page. Press twice to view the Main Menu.

ENTER/MARK—press to select an menu item, data field, or option. Press and hold to save your current location.

Rocker—rock up, down, right, and left to move through page items.

Turning the Device On and Off

1. Press [power icon] to turn the device on.
2. Press and hold [power icon] to turn the device off.

Using the Rocker

Use the rocker to:

- Move through lists.
- Highlight fields, on-screen buttons, icons.
- Move the map pointer.
- Add or edit text and numbers.

To edit text using the rocker:

NOTE: The following example shows how to edit a waypoint name on the Mark Waypoint page.

1. Highlight the name field using the rocker, and press **ENTER**.
2. Press the rocker left to clear the name field.
3. Press the rocker up to scroll through the list to find numbers or letters.
4. Press the rocker right to enter the next letter.
5. Press **ENTER** when completed.

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Attaching the Wrist Strap

1. Place the loop of the wrist strap through the slot opening at the bottom of the device.

2. Route the strap through the loop, and pull it tight.

Acquiring GPS Satellite Signals

1. Go outdoors to an open area, away from tall buildings and trees.

2. Turn on the device. Acquiring satellite signals can take a few minutes.

The bars on the GPS Information Page indicate the satellite strength. When the bars are filled in, the GPS 72H has acquired satellite signals. For more information, see page 19.

Adjusting the Backlight

1. Press and quickly release [icon].

2. Use the rocker to adjust the brightness and contrast.

Brightness   *Contrast*

To adjust the backlight time:
1. From the Main Menu, select **Setup** > **Backlight Timeout**.

2. Select the amount of time the backlight stays on, and press **ENTER**.

Using the GPS 72H

Creating and Using Waypoints

Waypoints are locations or landmarks you record and store in your GPS 72H. You can add waypoints to routes, and you can navigate directly to a selected waypoint.

You can create waypoints using three methods. You can mark your current location, create a waypoint on the map, or enter coordinates for a waypoint manually.

Marking Your Current Location

You must have a valid position fix to mark your current location.

Waypoint symbol
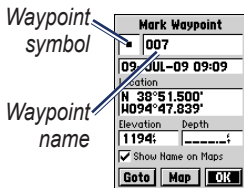
Waypoint name

Mark Waypoint Page

To mark your current location:
1. Press and hold **MARK** until the Mark Waypoint page appears.

2. A default three-digit name and symbol are assigned to the new waypoint.

   • To accept the waypoint with the default information, select **OK**.

   • To change the waypoint information, select the appropriate field. After making changes, select **OK**.

Creating Waypoints Using the Map

1. On the map page, use the rocker to move the map pointer to the map area you want to mark.
2. Press **ENTER** to capture the map pointer location and open the new Waypoint page.
3. Select **OK**.

Creating Waypoints using existing Coordinates

1. Press and hold **ENTER** to display the Mark Waypoint page.
2. Select the Location field.
3. Using the rocker, enter the new location coordinates.
4. Press **ENTER**.

Editing Waypoints

You can edit waypoints to change the symbol, name, note, location, and the elevation. You can also select the option to show the waypoint name on the map.

To edit a waypoint:
1. Press **MENU** twice > select **Points** > **Waypoints**.
2. Select the waypoint you want to edit.
3. Use the rocker and the **ENTER** button to make changes.
4. Select **OK**.

To delete a waypoint:

1. From the Waypoints page, select the waypoint you want to delete.
2. Press **MENU** > select **Delete Waypoint** > **Yes**.

NOTE: When you delete a waypoint, you cannot recover it from the GPS 72H.

Projecting a Waypoint

Create a new waypoint by projecting the distance and bearing from one location to a new location.

To project a waypoint:

1. Press **MENU** twice > select **Points** > **Waypoints**.
2. Select the waypoint you want to project. The Waypoint Information page opens.
3. Press **MENU** > select **Project Location** to open the Project Location page.
4. Enter the distance and bearing to the projected waypoint in the appropriate fields.
5. Select **Save**.

Using GO TO

Press **GO TO** at any time to quickly find a waypoint.

1. Press **GO TO**.
2. Select **Waypoint**.
3. Select the desired waypoint.

Man Overboard

In the event of a person falling off your boat, press and hold **MOB** to store your current location. Select **Yes** to begin navigating to that point.

For more information on Marine navigation, see .

Using Tracks

The tracks feature creates an electronic bread-crumb trail, or "track log," on the Map page as you travel. The track log contains information about points along its path.

The track log starts recording as soon as the GPS 72H acquires satellite signals. The percentage of memory used by the current track log appears at the top of the Tracks page.

To clear the track log:
1. Press **MENU** twice to open the Main Menu.
2. Select **Tracks**.
3. Select **Clear** > **Yes**.

To set up a track log:
1. Press **MENU** twice > select **Tracks**.
2. Select **MENU** > **Setup Track Log**.
   - **Wrap When Full**—the track log records over the oldest data with new data.
   - **Record Method**—select a track recording method. Select **Distance**, **Time**, or **Auto**. If your recording method is time or distance, enter the specific time or distance interval. Select **Auto** to record the tracks at a variable rate to create an optimum representation of your tracks.
   - **Interval**—select a track log recording rate. Recording points more frequently creates a more-detailed track, but fills the track log faster.

To save the entire track log:
1. Press **MENU** twice > select **Tracks**.
2. Select **Save** > **Entire Log**.

To save a portion of the track log:
1. Press **MENU** twice > select **Tracks**.
2. Select **Save**.
3. Select the portion of the track log to save from the list.
4. Select **OK**.

To view a track on the map:
1. Press **MENU** twice > select **Tracks**.
2. Select a track to view.
3. Select **Map**.

Navigating a Saved Track

TracBack® navigation uses Track points in a saved track to automatically create a route.

To use the TracBack feature:
1. Select a saved track from the Tracks page.
2. Select **TracBack**.
3. Select **Original** or **Reverse**.

On the Active Track page, TracBack is listed as the name of the track.

To create a waypoint on a saved track:
1. Select a saved track from the Tracks page.
2. Select **Map**.
3. Use the rocker to position the map pointer to a track point that you want to mark as a waypoint.
4. Press **ENTER**.

Creating Routes

A route is a sequence of waypoints that lead you to your destination. A route must have at least two waypoints and can have as many as 50. The GPS 72H can store up to 50 routes. Create or modify a route using the Routes page, and add waypoints to a route. You can also create routes using MapSource® mapping.

To create a route:
1. Press **MENU** twice > select **Routes**.
2. Select **New**.
3. Press **MENU** to add a waypoint from the map or from your saved waypoints.
4. Select **OK** to add it to the route.
5. Repeat steps 2 through 4 to add additional waypoints to the route.
6. Press **MENU** > select **Start Navigation**.

Navigating a Route

To navigate a saved route:
1. Press **MENU** twice > select **Routes**.

2. Select a saved route.

3. Press **MENU** > select **Start Navigation**.

Editing a Route
Use the Route page to edit, change the route name, and review route points.

To change the name of the route:
1. Press **MENU** twice > select **Routes**.

2. Select a saved route.

3. Select the route name at the top of the Route page.

4. Use the rocker and the **ENTER** button to change the name of the route.

The Main Pages

All of the information needed to operate your device is found on the five main pages: the GPS Information page, the Map page, the Compass page, the Highway page, and the Active route page.

- Press the **PAGE** button to navigate through the main pages.

- Press **MENU** to access the menu for these pages.

- Use the rocker and the **ENTER** button to select the option you want to change.

- Press **MENU** twice to access the Main Menu.

GPS Information Page

Map Page

Compass Page

Active Route Page

Highway Page

Map Page

Data Fields
Position icon
Zoom scale
Map pointer
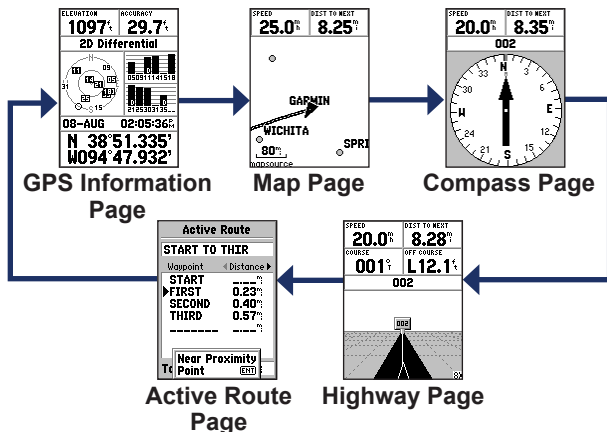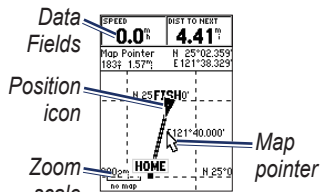
Map Page

Your position on the map is represented by ▲ (position icon). As you travel, the position icon leaves a track log (trail). Waypoint names and symbols are also shown on the map.

NOTE: Press **OUT** to zoom out or **IN** to zoom in.

To view the map with north up:
1. From the Map page, press **MENU**.
2. Select **Setup Map** > **General > Orientation** > **North Up**.

To clear a track log:
1. From the Main Menu, select **Tracks** > **Clear**.
2. Select **Yes**.

As you move the map pointer on the Map page, the distance, bearing, and location of the map pointer appear at the top of the map.

To measure the distance between two map points:
1. From the Map page, press **MENU** > select **Measure Distance**.
2. Move the map pointer to another location on the map. The total distance between the two points appears in the data fields.

To change the data fields on the Map page:
1. Press **MENU** > select **Setup Page Layout**.
2. Select the size and number of rows of data fields you want to show on the map.

To change a data field:

1. Press **MENU** > select **Change Data Fields**. The first data field is selected.
2. Press **ENTER** to see the list of data fields. For data field descriptions, see pages 30–33.
3. Select a data field.
4. Use the rocker and the **ENTER** button to change additional data fields.

Map Orientation

North Up orients the map like a paper map. Track Up orients the map in the direction of travel.

1. Press **MENU** > select **Setup Map** > **General**.
3. Select **Orientation**.
4. Use the rocker and the **ENTER** button to change map orientation.

Map Page Options

Full Screen Map—hides the data fields and expands the map to include the entire screen.

Measure Distance—allows you to measure the distance between two points. For more information, see page 14.

Setup Page Layout—allows you to select the number of data fields rows and the size of text used in the fields.

Change Data Fields—allows you to select the type of data that you want to display in the data fields. For data field descriptions, see pages 30–33.

**Setup Map**—contains the Map page setup features, which are arranged on a tab menu.

• **General Tab**—allows you to customize the detail level, the orientation, and zoom level of the map.

- **Map Tab**—you can turn on or off MapSource®, customize latitude and longitude grid distance, and customize the grid labels.

- **Waypoint Tab**—size and zoom setting for Waypoints and Active Route Waypoints.

- **Point Tab**—size and zoom setting for Navaids, Points of Interest, Geo, and Exit option.

- **Line Tab**—Zoom scale settings for Track Log, Saved Tracks, Active Route, and the Off/On setting for the Bearing Line.

- **City Tab**—Text and Zoom scale settings for Large City, Medium City, Small City and Small Town.

- **Other Tab**—On/Off settings for the Accuracy Circle and Heading Line.

To restore Map page defaults, select **MENU** > **Setup Map** > **MENU** > **Restore Defaults**.

Compass Page

The Compass page guides you to your destination with a graphic compass display and a bearing or course pointer.

Vertical line
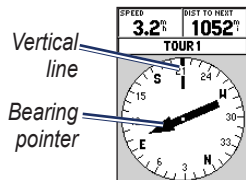
Bearing pointer

Compass Page

The rotating compass ring indicates the direction you are heading. The bearing and course pointers indicate the direction (bearing to or course of travel) to your destination, relative to your current heading direction. Choose a bearing pointer or course pointer for guidance.

Compass Page Options

Data Fields—selects the number of data fields that appear on the Compass page.

Change Data Fields—selects the type of data you want to show in the data fields.

Highway Page

The Highway page is for navigating when a straight line course can be followed. To navigate using the Highway page, just follow the road. If the Highway moves to the right, turn right until the triangle is aligned with the White Line in the middle of the Highway, and the Highway is pointed toward the top of the screen. When you are approaching a turn, the message "Approaching Turn" appears. As you approach your destination, the message "Arriving at Destination" appears.

Highway Page Options

Setup Page Layout—allows you to select the text size and the number of data fields rows.

Change Data Fields—allows you to select the type of data you want to appear in the data fields.

Setup Highway—the Highway Setup features.

• **Setup Highway**—the Line Tab contains the On/Off settings for Active Leg, Active Route, Track Log and Saved Tracks.

  ◦ **Active Leg**—when set to Off, the Active Leg of the graphic highway does not appear.

  ◦ **Active Route**—when Off is selected, the graphic highway does not appear.

  ◦ **Track Log**—when Off is selected, the Track Log does not appear.

- ◦ **Saved Tracks—**when Off is selected, Saved Tracks will does not appear.
- **Waypoint—**the Waypoint Tab contains the On/Off settings for Next, Route, and Other.
  - ◦ **Next—**determines if the next waypoint in a Route appear. If On is selected, you will see the next waypoint in the Route. If On is selected and the Route option is set to Off, only the Next Waypoint in the Route appears.
  - ◦ **Route—**determines if the waypoints in a Route appear. If set to Off, Route Waypoints will not be on the Graphic Highway.
  - ◦ **Other—**determines if nearby waypoints appear.

Active Route Page

If you are navigating a route, the Active Route page displays the route information.

Active Route Page options

Use Map—switches to map page.

Add Waypoint—allows you to add an existing waypoint to the active route.

Remove Waypoint—allows you to remove a waypoint from the active route.

Reverse Route—reverses the active route, placing the last waypoint at the top of the list.

Plan Route—to plan a route, enter Speed, Fuel Flow, Depart Time, and Depart Date for future planned routes. Fuel Flow is measured in units per hour.

NOTE: Consult your vehicle's owner's manual for performance specifications.

The Active Route page and the Route page display your trip information for each leg of the route, which includes Course, ETA, Fuel to point, Leg Fuel, Leg Time, Sunrise and Sunset at point location, Time to Point, and Leg Distance. To show a specific field, use the rocker to move through the fields.

Stop Navigation—stops navigation of active route.

GPS Information Page

The GPS Information page displays your speed, elevation, the estimated accuracy, receiver status, satellite locations, satellite signal strength, the date, the time and the GPS receiver's current location.
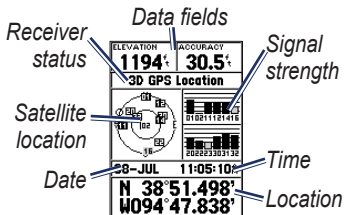
GPS Information Page

GPS Information Page Options

Start/Stop Simulator—enables you to turn the GPS simulator on or off.

Track Up/North Up—indicates whether satellites are shown with the rings oriented with North toward the top of the screen or your current track toward the top of the screen.

New Elevation—use to enter a different elevation.

New Location—use if you have moved the GPS 72H more than 600 miles (1,000 km).

Settings

The Main Menu contains settings and features not found on the main pages and sub-menus. The Main Menu is accessible from any page by pressing **MENU** twice. To select a menu item or customize an option, use the rocker and the **ENTER** button.

Menu options

Used memory

Backlight indicator

Battery power
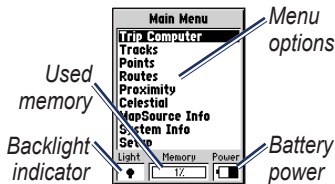
Main Menu Page

Trip Computer

For information on the data fields on the Trip Computer page, go to page 30–33.

Trip Computer Options

From the Trip Computer page, press **MENU** > select option.

Reset Trip—resets all data fields except maximum speed and the odometer to zero.

Reset Max Speed—resets the Max Speed data field to zero.

Reset Odometer—resets the Odometer data field to zero.

Trip Computer Page

Tracks

Tracks Options
From the Tracks Main Menu page, press **MENU** > select option.

Delete Saved Track—deletes a saved track.

Delete All Tracks—deletes all saved tracks.

Setup Track Log—the Track Log Setup menu appears.

• **Record—**Off, Wrap When Full or Stop When Full. If Wrap When Full is selected, when track memory is full, the oldest track point will be deleted and a new point added at the end.
• **Record Method**—set to Auto, Time, or Distance.
• **Interval**—selects or enters an interval for the record method.
•

For more information on tracks, see page 9.

Points

Waypoints are selected and created from the Points page.

Waypoint Options Menu
Find By Name / Find Nearest—select waypoint list search list method.

Find Nearest—displays a list containing the nearest waypoints within a 100 mile radius. The nearest waypoint is at the top of the list.

Find By Name—displays a list containing all user waypoints. You have the option of entering a waypoint name in the data field or scrolling through the list.

When you enter a waypoint name, the device updates the waypoint list to show waypoint names with the

entered letters. You can continue to enter the name, or press **ENTER** to scroll through the list.

Delete Waypoint—deletes the selected waypoint.

Delete By Symbol—deletes all waypoints with the same symbol as the selected waypoint.

For more information on waypoints, see page 6.

Routes

Routes Page Options
Start/Stop Navigation—starts or stops the navigation of a route.

Copy Route—copies a selected route.

Delete Route—removes the selected route.

Delete All Routes—removes all routes from the Routes page.

For more information on Routes, see page 11.

Proximity

Proximity waypoints alert you when approaching a predetermined area. When you place a waypoint in the Proximity List, you enter a Radius that determines when a Proximity Alarm appears. You can turn the Proximity Alarm on or off.

Proximity Options
Add Waypoint—displays the Points menu. Select a point to insert into the Proximity List. With the Radius field selected, press **ENTER**, and enter a radius for an alert to appear. You can also add a waypoint by highlighting the dashed entry line and pressing **ENTER**.

Remove Point—removes a selected waypoint from the Proximity List.

Remove All—removes all waypoints from the Proximity List.

Celestial

The Celestial menu allows you to view Sun and Moon or Hunt and Fish information.

Sun and Moon

The Sun and Moon page shows sunrise time, sunset time, moonrise time, moonset time, and the moon phase for a specified date.

To view the Sun and Moon Page:
• Select **Sun and Moon** to view the Sunrise/Sunset and Moon phases.

• Use the rocker and the **ENTER** button to change the date and location.

Hunt and Fish

The hunting and fishing almanac provides the predicted best dates and times for hunting and fishing at your current location.

To view Hunt and Fish page:
• Select **Hunt and Fish** to view the hunting and fishing predictions for your current location.

• Use the rocker and the **ENTER** button to change the date and location.

System Info

Select **System Info** to see the software version and unit ID number for your GPS 72H.

Setup

The Setup menu is arranged in a tab format. Each tab contains the settings that determine how the GPS 72H functions. Use the rocker and the **ENTER** button to change settings.

General Tab

The General tab contains settings for Receiver Mode, WAAS, Backlight Time Out, Beeper, and Language.

General Tab Page

Mode—allows you to choose from the following operation modes:

• **Normal**—default mode set from the factory. Use this setting for best performance.

• **Battery Saver**—optimizes the GPS 72H to save battery power. You may experience slower screen updates, but you should notice a significant increase in battery life. When in Battery Saver mode, the GPS 72H does not receive WAAS satellite signals. For more battery information, see pages 2 and 41.

• **Simulator**—turns off the GPS receiver and simulates satellite reception.

WAAS—Wide Area Augmentation System. Use the WAAS capability to increase GPS 72H accuracy to approximately three meters.
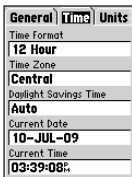
Backlight Timeout—sets the amount of time the backlight stays on.

Beeper—sets a beeper alert for buttons and message, or message only.

Language—sets the screen language for the GPS 72H.

Time Tab
The Time tab contains the specific time settings.

Time Tab Page

Time Format—select either 12- or 24-hour format.

Time Zone—select the appropriate time zone.

Daylight Savings Time—select **YES** to use daylight saving time, **NO** to ignore it, or **AUTO** to automatically turn daylight saving time on and off.

Current Date—displays the current date based on GPS data.

Current Time—displays the current time based on your time settings and GPS data.

Units Tab
The Units tab allows you to customize the units used for many different types of data. The units apply to related data fields throughout the GPS 72H.

Units Tab Page

Elevation—select feet or meters for elevation measurement.

Depth—set to show in feet, fathoms, or meters. The GPS 72H must be connected to a NMEA device providing the DPT or DBT sentence. For more information, see page 34.

Distance and Speed—set to nautical, statute, or metric.

Temperature—set to Fahrenheit or Celsius.

Direction Display—set to Numeric Degrees, Cardinal Letters, or Mils. This setting is used in all fields that relate to direction.

Speed Filter—set to Auto or User defined setting. If User is selected, a Seconds field appears. To enter a user-defined setting, highlight the Seconds field, and press **ENTER**. When finished, press **ENTER** to save. When using a user-defined setting, the GPS 72H averages the speed and heading at the rate

specified in the time setting. To change the time setting, go to page 25.

Location Tab

The Location tab contains the settings for Location Format, Map Datum, North Reference, and Magnetic Variation. The settings are used in fields throughout the device.
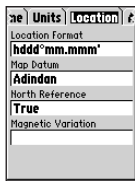
Location Tab Page

Location Format—allows you to choose from 29 different formats.

Map Datum—describes geographic positions for surveying, mapping, and navigation, but are not actual maps in the GPS 72H. There are over

100 datums available. Only change the Map Datum if you are using a chart or a paper map that specifies a different datum in the legend.

> **NOTICE:** Selecting the wrong map datum can result in substantial position errors. When in doubt, use the default WGS 84 datum for best overall performance.

North Reference—select the reference used in calculating heading information.

• **Auto**—provides magnetic north heading references which are automatically determined from your current location.

• **True**—provides headings based upon a true north reference.

• **Grid**—provides headings based on a grid north reference.

• **User**—allows you to specify the

magnetic variation at your current location, and provides magnetic north heading references based on the value you entered.

NOTE: If User is selected, you must periodically update the magnetic variation at your present position.

> **NOTICE:** Failure to update this setting may result in substantial differences between the information displayed on your GPS 72H and external references, such as a magnetic compass.

Magnetic Variation—displays the magnetic variation at your current location. When you select **User** for the **North Reference** setting, this field is used to enter the magnetic variance.

Alarms Tab

The Alarms tab contains settings for Anchor Drag, Approach and Arrival, Off Course, Shallow Water, and Deep Water. These settings determine if a warning beep sounds, and if an alarm message appears.

Alarms Tab Page

Anchor Drag—alerts you when the boat has drifted more than the set distance.

Approach and Arrival—alerts you when you are approaching a turn or arriving at your destination.

• **Automatic**—alerts you between 15 and 90 seconds before reaching the destination, depending on your speed.

• **Distance and Time**—alerts you at the specified distance or time.

Off Course—alerts you when you are off course more than the set distance.

Shallow Water—requires input from a NMEA device supplying the DPT sentence. The Shallow Water alarm alerts you when the water depth is less than the set depth. For NMEA connection information, see page 38.

Deep Water—requires input from a NMEA device supplying the DPT sentence. The Deep Water Alarm alerts you when the water is deeper than the set depth. For NMEA connection information, see page 38.

Interface Tab

The Interface tab contains two fields: Serial Data Format and USB.
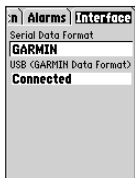
Interface Tab Page

Serial Data Format— communication settings between the GPS 72H and other electronic devices.

• **GARMIN—**allows the GPS 72H to communicate with GARMIN software and other GARMIN GPS devices.

• **GARMIN DGPS—**allows the GPS 72H to communicate with GARMIN Differential Correction devices. The GPS 72H can have

the beacon receiver scan for an available DGPS beacon or can tune the beacon receiver to the frequency and bit rate of a nearby DGPS beacon.

• **NMEA—**allows the GPS 72H to transmit NMEA 0183, version 2.3 data. It also allows the GPS 72H to accept NMEA data from another NMEA device, such as an echo sounder. The baud (speed of communication in bits per second) appears in the Baud field. For NMEA connection information, see page 38.

• **Text Out—**allows the GPS 72H to output simple text data.

• **RTCM In—**allows the GPS 72H to accept DGPS information from a device supplying RTCM data in an SC-104 format.

- **RTCM In/NMEA Out—**allows the GPS 72H to communicate with a NMEA 0183, version 2.3 sentences, GPRMC, GPGGA, GPGSA, GPGSV, GPGLL, GPBOD, GPRTE, and GPWPL. For NMEA connection information, see page 38.

- **RTCM In/Text Out—**allows the GPS 72H to output simple text data that includes date, time, position, and velocity information.

- **None—**turns off all serial communication.

USB—displays connectivity of the device to a computer. For more information, see page 40.

Data Field Options

The following table lists all of the GPS 72H data fields and descriptions.

Data Field	Description
Accuracy	The accuracy of the GPS signal.
Bearing	The direction from your current location to a destination.
Course	The direction from your starting location to a destination.
Depth	The depth of the water. Requires a NMEA 0183 device connection to acquire data.

Data Field	Description
Dist to Destination (distance)	The distance from a current location to a GO TO destination or final waypoint.
Dist to Next (distance)	Distance from a current location to a GO TO destination or the next waypoint.
ETA at Destination (estimated time of arrival)	Estimated time you will reach a GO TO destination or final waypoint.
ETA at Next (estimated time of arrival)	Estimated time you will reach a GO TO destination or next waypoint.
Elevation	Height above mean sea level (MSL).

Data Field	Description
Maximum Speed	The maximum speed.
Moving Avg Speed (average)	Average speed of the GPS 72H while moving.
Moving Trip Timer	Total time the GPS 72H has been moving.
Off Course	The distance (left or right) you are from the original course (path of travel).
Pointer	The data field arrow points in the direction you are traveling.
Speed	Displays rate of current speed.

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Data Field	Description
Time of Day	Current time of day based on time settings. See page 25.
Time to Destination	The estimated time required to reach a GO TO destination, or the final waypoint in a route.
Time to Next	The estimated time required to reach a GO TO destination, or the next waypoint in a route.
To Course	Direction you must travel to return to route.

Data Field	Description
Total Avg Speed (average)	Average speed of the GPS 72H for both moving and stopped speeds since last timer reset.
Total Trip Timer	Total time the device has been in operation since last reset of the trip timers.
Track	The direction of movement relative to a ground position.
Trip Odometer	A running tally of distance traveled since last reset. See page 20.

Data Field	Description
Turn	The angle difference (in degrees) between the bearing to your destination and current line of travel. L means turn left. R means turn right.
(Velocity Made Good) VMG	The speed at which you are closing on a destination along a route. (estimated time of arrival). See page 38.

Data Field	Description
Water Speed	Speed of the boat relative to the water. Requires a NMEA 0183 device to acquire data. See page 38.
Water Temperature	The temperature of the water. Requires a NMEA 0183 device to acquire data. See page 38.

Marine Navigation

The GPS 72H can be used for marine navigation, as either a handheld or a mounted device.

Mounting the GPS 72H

A marine mount may be included with your device, or it is available as an optional accessory.

Hardware Needed for Installation

• Drill

• Screwdriver (Phillips or flat)

• Three #8 machine bolts with matching nuts and washers and a $5/32$ in. (4 mm) drill bit, or three #8 self-tapping screws and a $1/16$ in. (1.5 mm) drill bit.

NOTE: Your choice of fastener hardware depends on the mounting surface material.

Cradle

Bail mount knob

Swivel base

Bail mount

Installing the Mount in a Fixed Position

Select a location that provides optimal viewing and allows easy access to the keypad. Select a mounting surface strong enough to support the weight of the device and protect it from excessive vibration or shock.

NOTICE: Do not place the mount in a location where the device is exposed to extreme temperature conditions.

1. Remove the bail mount knob.

Bail mount knob

Bail mount

Swivel base
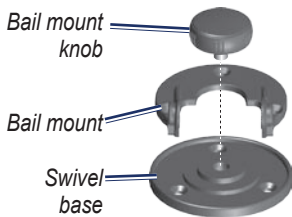
2. Using the bail mount as a template, mark the location of the three pilot holes on the mounting surface.

Bail mount
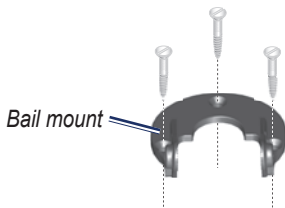
3. If you are securing the base with machine bolts, drill three 5/32 in. (4 mm) pilot holes.

NOTE: If securing the base using self-tapping screws, drill 1/16 in. (1.5 mm) starter holes at the locations you marked. Starter holes should be no deeper than half the screw length.

4. Secure the bail mount with three bolts or screws. Do not overtighten.

5. Align the mounting hole on the cradle with the holes on the bail mount and secure it with the bail mount knob.

Installing the Mount in a Swivel Position

1. Remove the base knob. Set the base knob and the swivel base aside.

2. Remove the bail mount knob. Separate the bail mount from the cradle.

3. Using the swivel base as a template, mark the location of the three holes.

Swivel base
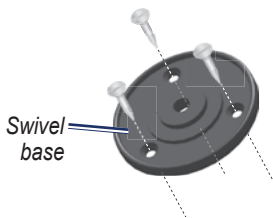
4. If securing the base with machine bolts, drill three 5/32 in. (4 mm) holes.

NOTE: If securing the base using self-tapping screws, drill 1/16 in. (1.5 mm) starter holes at the locations you marked. Starter holes should be no deeper than half the screw length.

5. Secure the swivel base with three bolts or screws. Do not overtighten.

6. Align the mounting hole on the cradle with the holes on the bail mount and secure it with the bail mount knob.

Adjusting the Viewing Angle

1. Tilt the GPS unit by loosening the knob.

2. Rotate the entire bracket assembly by loosening the bail mount knob on the swivel base.

Knob

3. Select your preferred viewing angle and tighten the knobs.

Installing the Device into the Mounting Bracket

1. Locate the groove on each side of the device case.

2. Align the grooves on the device with the corresponding tabs on the device cradle and slide the device downward into the bracket.

3. Secure the device in the cradle by sliding the locking mount handle to the left.

Groove

Locking handle

Receiving Marine Data

To receive VMG data, you must be connected to a NMEA 0183-compatible water-speed sensor. To receive water temperature data, you must be connected to a NMEA 0183-compatible temperature sensor.

NOTE: To receive water speed and temperature information, connect a water-speed and water-temperature sensor to the device.

Connecting the Power/Data Cable

The power/data cable connects the GPS 72H to a 8-35 volt DC system and provides interface capabilities for connecting external devices. The color code in the diagram below indicates the appropriate harness connections. The replacement fuse is a AGC/3AG - 2.0 Amp fuse.

Color	Function
Red	Power
Black	Ground
Brown	Data Out (Tx)
White	Data In (Rx)
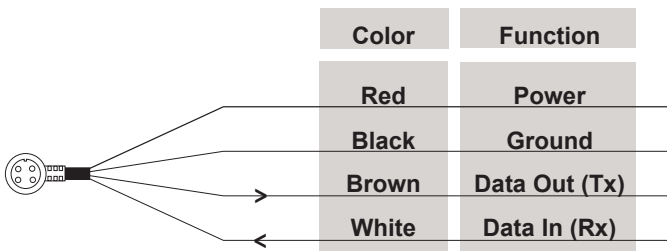
GPS 72H Power/Data Cable

Interfacing

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

The following are the sentences for NMEA 0183, version 2.3 output:

• **Approved sentences**—GPRMC, GPGGA, GPGSA, GPGSV, GPGLL, GPBOD, GPRTE, and GPWPL.

• **Proprietary sentences**—PGRME, PGRMZ, and PSLIB. The GPS 72H also includes NMEA input with support for the DPT, MTW, and VHW sentences.
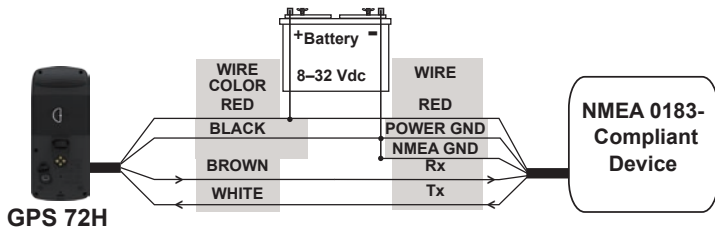
Wiring the GPS 72H to a Standard NMEA 0183 Device

NOTE: Consult the installation instructions for your NMEA 0183-compliant device to identify the Transfer (Tx) and Receiving (Rx) connections.

Appendix

Connecting Your Device to a Computer

1. Plug the small end of the USB cable into the mini-USB port on the back of the device (under the weather cap).
2. Connect the larger end of the USB cable to an available USB port on your computer.

NOTE: To check your connection, press **MENU** twice > select **Setup** > **Interface** > **Connected**.

Transferring Tracks, Routes, or Waypoints

Tracks, routes, and waypoints can be transferred between your device and a computer using MapSource.

NOTE: For information about MapSource, go to www.garmin.com.

To transfer tracks, routes, or waypoints to and from MapSource:
1. Connect your device to the computer with a USB cable.
2. Open MapSource on your computer.
3. Select tracks, routes, or waypoints to transfer.
4. Click **Receive From Device** or **Send To Device** on the MapSource Transfer menu.

Battery Information

⚠️ **WARNING:** Do not use a sharp object to remove user-replaceable batteries. Contact your local waste disposal department to properly recycle the batteries.

Optimizing Battery Life

Use premium batteries for optimal performance and maximum battery life.

Consider the following suggestions to maximize battery life:

- Avoid excessive use of the backlight, which will significantly decrease battery life.
- Select a shorter backlight timeout. See page 24.
- Turn off GPS when not using.

Cleaning the Display Screen

Use a soft, clean, lint-free cloth. Use water, isopropyl alcohol, or eyeglass lens cleaner. Apply the liquid to the cloth and then gently wipe the display screen with the cloth.

Resetting the GPS 72H

If your GPS 72H stops functioning, you can remove and then reinstall the batteries to reset the device.

Specifications

Physical

Size: W × H × D
1.2 ×2.7 × 6.2 in. (3.0 × 6.9 × 15.75 cm)

Weight: 7.9 oz. (224 g)

Display: High-contrast FSTN, 4-level gray scale display (120 × 160 pixels)

Case: Fully gasketed, floatable, high-impact plastic alloy, waterproof to IEC 529-IPX-7

Temp. Range: From 5°F to 140°F (from -15°C to 60°C)

Performance

Battery Life: 18 hours in Battery Saver mode

Receiver: Differential-ready 12 parallel channel receiver

Acquisition Times: Approximately 3 seconds (hot start)
Approximately 32 seconds (warm start)
Approximately 39 seconds (cold start)

Update Rate: 1/second, continuous

GPS Accuracy: *< 15 meters (49 feet) RMS 95% typical

DGPS (USCG) Accuracy: 3–5 meters (10–16 ft), 95% typical

DGPS (WAAS) Accuracy: 3 meters (10 ft.) 95% typical with DGPS corrections

Velocity Accuracy: 0.1 knot RMS steady state

Dynamics: 6 g

* Subject to accuracy degradation to 100m 2DRMS under the US DOD-imposed Selective Availability Program.

Power

Batteries: Two 1.5-volt AA batteries[1]

Source: 8–35V DC

Fuse: AGC/3AG - 2.0 Amp

[1] The temperature rating for the GPS 72H may exceed the usable range of some batteries. Alkaline batteries can rupture at high temperatures. Alkaline batteries lose a significant amount of their capacity as temperature decreases. Use lithium batteries when operating the GPS 72H in below-freezing conditions. Extensive use of screen backlighting will significantly reduce battery life.

Accuracy

GPS: <33 ft. (10 m) 95% typical*

* Subject to accuracy degradation to 100m 2DRMS under the U.S. DoD imposed Selective Availability (SA) Program when activated.

DGPS: 10 ft. (3 m) 95% typical*

*Wide Area Augmentation System (WAAS) accuracy in North America.

Velocity: 0.1 meter/sec steady state

Interfaces: Garmin Proprietary (USB)

Data Storage Life: Indefinite; no memory battery required

Software License Agreement

BY USING THE GPS 72H, YOU AGREE TO BE BOUND BY THE TERMS AND CONDITIONS OF THE FOLLOWING SOFTWARE LICENSE AGREEMENT. PLEASE READ THIS AGREEMENT CAREFULLY.

Garmin grants you a limited license to use the software embedded in this device (the "Software") in binary executable form in the normal operation of the product. Title, ownership rights, and intellectual property rights in and to the Software remain in Garmin.

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disassemble, modify, reverse assemble, reverse engineer, or reduce to human readable form the Software or any part thereof or create any derivative works based on the Software. You agree not to export or re-export the Software to any country in violation of the export control laws of the United States of America.

Declaration of Conformity (DoC)

Hereby, Garmin, declares that this GPS 72H is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

To view the full Declaration of Conformity, see the Garmin Web site for your Garmin product: www.garmin.com.

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