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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.

Device Overview
NOTE: Certain functions are available only when the appropriate sensors are connected to the device.
The marine instrument allows you to view data sources from sensors through a NMEA® 0183 network.
The instrument can also receive data from Nexus® instruments and sensors using a GND™ 10 device (sold separately).

Using the Race Timer
You can use the race timer to count down to a race, and then measure the duration of the race. You can add the race timer as a data field on a page.
TIP: To quickly open the race timer screen, hold from a main page.
1 From a page with the race timer active, select > CONFIGURE DATA FIELDS > RACE TIMER SETTINGS.
2 Select an option:
   • When the device is in prerace mode and is stopped or running, select RESET, START, or SETUP.
   • When the device is in prerace mode and is running, sync the timer to the next minute up or the next minute down, or select STOP.
   • When the device is in race mode and the race timer is counting up, sync the timer back to 0:00, or select STOP.

Profiles
Profiles are collections of instrument pages that can be customized. Profiles can be made up of instrument pages that display similar data, such as GPS speed information and GPS course information.

During the initial setup, you can select a preset profile, or you can create a custom profile. You can select a different profile at any time.

POWERBOAT: This profile displays instruments useful when in a powerboat. Available default instruments include GPS speed information, GPS course information, depth, bearing to waypoint, distance to the next waypoint, and water temperature.

SAIL CRUISE: This profile displays instruments useful when cruising in a sailboat. Available default instruments include true wind speed, GPS speed information, GPS course information, bearing to waypoint, distance to the next waypoint, true wind angle, and depth.

SAIL RACE: This profile displays instruments useful when racing in a sailboat. Available default instruments include GPS speed information, true wind speed, true wind angle, heading, bearing to waypoint, and distance to the next waypoint.

CUSTOM: This profile allows you to customize the page to display instruments useful to your specific boating needs. The default page displays speed over ground information.

Selecting a Profile
1 Select > SETUP > PROFILES.
2 Select a profile.

Restoring Profiles to their Default Settings
You can restore profiles to their factory default settings.
1 Select > SETUP > PROFILES > RESET DEFAULTS.
2 Select CURRENT PROFILE or ALL PROFILES.

Using Auto Scroll
You can use auto scroll to move through all of the instrument pages automatically.
1 Select .
2 Select SETUP > AUTO SCROLL.
3 Select the length of time the device displays each instrument page.
NOTE: Setting the time to zero disables the auto scroll feature.

Configuring the Data Fields
Data provided on an instrument page can be shown in various ways depending upon the instrument page that is displayed.
Select > CONFIGURE DATA FIELDS.

Configuring Graph Data Fields
Some instrument pages display graph data. You can configure the data that displays on the graphs.
1 From the instrument page, select > CONFIGURE DATA FIELDS > GRAPH SETTINGS.
2 Select an option:
   • To determine how long the graph data displays, select GRAPH DURATION.
   • To configure the scale of values displayed in the graph, select GRAPH SCALE.
Changing the Layout of Instrument Pages

NOTE: You can change the layout of an instrument page to display up to three fields of data from connected instruments.

1. From the instrument page you need to change, select \( \equiv \) > EDIT CURRENT PAGE > CHANGE LAYOUT.
2. Select the number of fields to show on the instrument page.
3. Select the field to change.
4. Select a category.
5. Select the data to show in the field.
6. Repeat steps 3 through 5 for each additional field you need to change.
7. Select DONE.

Adding an Instrument Page

You can create a custom page. You can add up to three instruments from instrument collections to display on a custom page.

1. Select \( \equiv \) > ADD/REMOVE PAGE > ADD PAGE.
2. Select ONE FUNCTION, TWO FUNCTION, or THREE FUNCTION.
3. Select an instrument page collection.
4. Select a number.
5. If necessary, select an empty function.
6. Select ▲ or ▼ to scroll through the instrument pages.
7. Select an instrument page to add.

Removing an Instrument Page

1. Select the instrument page to remove.
2. Select \( \equiv \) > ADD/REMOVE PAGE > REMOVE PAGE.
3. Select YES.

Device Configuration

Resolving a Combined Network

When the device is turned on, it can detect when it has been synchronized with instruments on another network. This can happen if the device has previously been installed on another vessel and synchronized with instruments on the other vessel's network. If the settings are not restored to the factory default values (Restoring Profiles to their Default Settings, page 1), the device detects a conflict that must be resolved.

1. Select \( \equiv \) > SETUP > COMBINED NETWORKS DETECTED.
2. Select an option:
   • To synchronize existing instruments on the network to the device, select NO.
   • To synchronize the device to existing instruments on the network, select YES.

System Settings

Select \( \equiv \) > SETUP > SYSTEM.

UNITS: Sets the units of measure.

HEADING: Sets the units of measure and the variance used in calculating heading information.

BEEPER: Sets when audible sounds are used.

GPS POSITION: Sets the position format and the map datum. The map datum is dependent on the position format.

AUTO POWER: Enables the device to turn on automatically when the NMEA network turns on.

LANGUAGE: Sets the on-screen language.

TIME: Sets the time format, time zone, and daylight saving time for your location.

SYSTEM INFORMATION: Displays software information.

FACTORY DEFAULT: Resets the device settings to factory default values.

Selecting the Heading Type

1. Select \( \equiv \) > SETUP > SYSTEM > HEADING.
2. Select NORTH REFERENCE.
3. Select an option:
   • To automatically set the magnetic declination for your GPS position, select MAGNETIC.
   • To set true north as the heading reference, select TRUE.
   • To set grid north as the heading reference (000°), select GRID.

Configuring the Beeper

You can configure the beeper to sound when the keys are pressed.

Select \( \equiv \) > SETUP > SYSTEM > BEEPER.

Configuring the Position Format

NOTE: Do not change the position format or the map datum unless you are using a map or chart that specifies a different position format.

1. Select \( \equiv \) > SETUP > SYSTEM > GPS POSITION.
2. Select an option:
   • To change the position format in which a reading appears, select POSITION FORMAT.
   • To change the coordinate system on which the map is structured, select MAP DATUM.

Configuring Data Sources

Instruments that are connected to your device and provide data, such as wind sensors or speed sensors, can be configured through your device. Refer to your instruments' owner's manuals for more information.

1. Select \( \equiv \) > SETUP > DATA SOURCES.
2. Select a data source and configure it.
3. Select your instrument.
4. Select a source and configure.

Display Settings

Select \( \equiv \) > SETUP > DISPLAY.

BACKLIGHT: Sets the backlight brightness.

COLOR: Sets the screen color.

NETWORK SHARING: Shares color and backlight settings with devices across the NMEA 2000® or NMEA 0183 networks.

Viewing and Editing NMEA Settings

You can view information about NMEA or NMEA 2000 device and change device-specific options.

1. Select \( \equiv \).
2. Select SETUP.
3. Select NMEA 0183 or NMEA 2000 DEVICES.
4. If necessary, select an option:
   • To view information about the device, such as the software version and the serial number, select DEVICE LIST.
   • To change the label of a device, select LABEL DEVICES.
NMEA 0183 Data Type Information

Each NMEA certified sensor provides unique information to the NMEA certified display device, such as the GNX 20/21. The data you can view on your display depends on the sensors you have installed and configured. See the General NMEA Data Type Requirements topic in the Technical Reference for Garmin® NMEA Products manual at www.garmin.com/support.

Registering Your Device
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.

Appendix

Data Fields
ABS: Absolute, relative to another data field. For example, absolute humidity.
AIR: The air temperature.
AVG: The average amount.
AWA: The wind angle measured relative to the bow of the vessel.
AWS: The measured speed of the wind.
BAR: The calibrated current pressure.
BAT: The battery voltage.
BSP: The speed of the boat relative to the water.
BTW: The direction from your current location to a destination. You must be navigating for this data to appear.
COG: The actual direction of travel, regardless of the course steered and temporary variations in heading.
CTS: The direction in which you must steer to return to the course set at the start of navigation.
DIS: The distance traveled for the current track or activity.
DPT: The depth of the water. Your device must be connected to a NMEA 0183 or NMEA 2000 device capable of acquiring the water depth.
DRF: The speed of the current.
DTW: The distance to the waypoint.
ELV: The altitude of your current location above or below sea level.
ERR: The precision of the current position, when used with GPS.
GWD: The direction of the wind relative to the ground, referenced from the north.
GWS: The speed of the wind relative to the ground.
HDG: The direction the boat is pointing.
HUM: The level of humidity.
MAX: The maximum in relation to another data field. For example, maximum speed.
MIN: The minimum in relation to another data field. For example, minimum speed.
ODO: A running tally of distance traveled for all trips. This total does not clear when resetting the trip data.
OTH: The opposite tack direction of the vessel based on the current tack direction.
POS: The vessel's current position.
RACE: The timer for vessel racing.
REF: A steer pilot reference.
REL: Relative to another data field. For example, relative humidity.
RUD: The rudder relative to another data field. For example, rudder angle.
SEA: The temperature of the water.
SOG: The actual speed of travel, regardless of the course steered and temporary variations in heading.
STR: The steer pilot.
TRP: A running tally of the distance traveled since the last reset.
TWA: The angle of the wind relative to the water, referenced from the bow of the boat with a port or starboard angle up to 180 degrees.
TWD: The true direction of the wind relative to north.
TWS: The true speed of the wind relative to the vessel.
UTC: The Coordinated Universal Time.
VMG: The speed at which you are closing on a destination along a route. You must be navigating for this data to appear.
WND: The velocity made good upwind.
XTE: A cross track error.
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<tr>
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<td>+47 815 69 555</td>
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<td>Hungary</td>
<td>00800 4412 454 +44 2380 662 915</td>
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<tr>
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<td>+46 7744 52020</td>
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<tr>
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<td>Portugal</td>
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