

Specification Control Document

Drawing Number: 190-02003-90
Description: GNX Wind Owner's Manual (ML)
Revision: A
Drawn By: NCS 12/23/15

Revision History

Rev.	Date	Description of Change	ECO No.
A	12/23/15	Production Release	----

Printing Specifications

Tolerance: ± 0.0787 " (± 2 mm)
Material: 70-lb woodfree. Approved equivalents allowed.
Color: Black ink.
Bindery: Saddle stitch. Approved equivalents allowed.
Folds: Not applicable
Finished Dimensions: 8.3x5.5 in.
Notes: This part shall comply with Garmin Banned & Restricted Substances (GPN 001-00211-00).

Content Management System (CMS) Details

GUID: GUID-6A13DE9A-5914-44D6-ACBB-3A1F90360E86
Version: 1
Language(s): EN-US, FR-FR, IT-IT, DE-DE, ES-XM, PT-BR, DA-DK, NB-NO, SV-SE

Notes

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GNX[™] Wind



Owner's Manual







Getting Started

WARNING

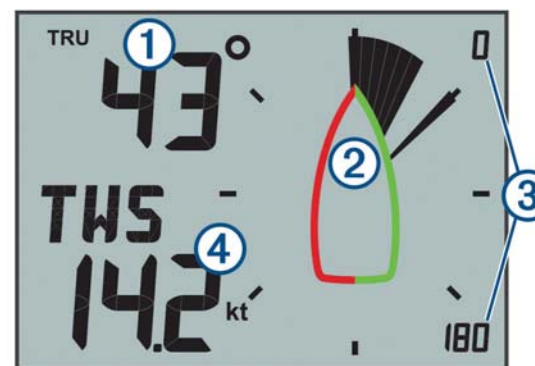
See the *Important Safety and Product Information* guide in the product box for product warnings and other important information.

Keys

The keys on this instrument allow you to move through data screens, navigate menus, and turn the device on and off. The functions of the keys depend on the device screen you are viewing.

Key	Function
	Press to turn the instrument on. Press to change the backlight level. Hold to turn the instrument off.
	Press to move through the instrument screens and menu items. Press to adjust the values of submenu settings.
	Press to enter the menu when viewing an instrument screen. Press to enter a submenu when viewing a menu item. Press to select a value to adjust when viewing a submenu. Press to confirm a setting after adjusting the value in a submenu. Hold to enter the steer pilot mode (page 4).
	Press to return to the instrument screens when viewing the menu. Press to return to the menu when viewing a submenu. Press to cancel a setting when adjusting the value in a submenu.




Instrument Screen



Item	Description	Notes
①	Upper data field	Instrument screen: shows numeric wind angle or direction information (page 6). Menu screen: shows the decimal value of the menu category and sub-menu item.
②	Wind rose	Shows wind direction or angle information on the boat diagram. (page 3)
③	Wind rose span	Shows the scope of the wind rose, which changes when configured for close-hauled sailing (page 3).
④	Lower data field	Instrument screen: shows sensor speed information (page 6). Menu screen: shows the name of the menu category or name and value of the sub-menu item.

Viewing Sensor Information

The instrument shows sensor information using up to four instrument screens. You can customize the number of instrument screens (page 6), and you can customize the data shown on each instrument screen (page 6).

- 1 When **MENU** or **SUBMENU** is shown, press  repeatedly until you view an instrument screen.
- 2 Press  and  to move through the available instrument screens.

Wind Rose

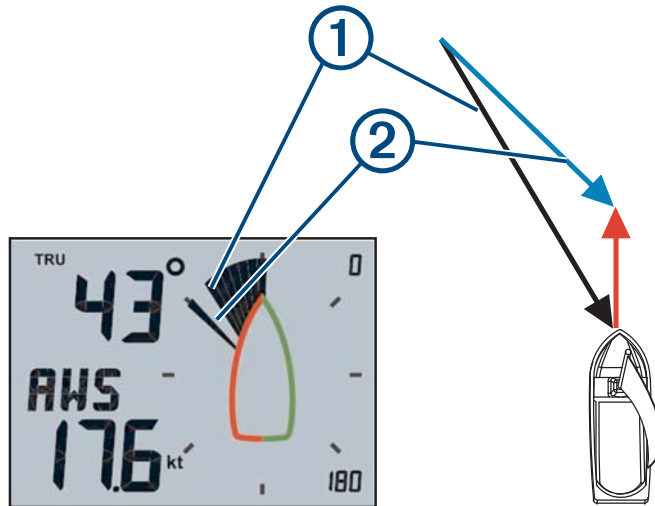
The wind rose shows a visual representation of the wind angle or direction provided by the connected wind sensor.

You can configure the wind rose to show three types of wind information on an instrument screen:

- Both the true wind angle and apparent wind angle at the same time
- A focused view for close-hauled sailing
- The true wind direction

True and Apparent Wind Rose

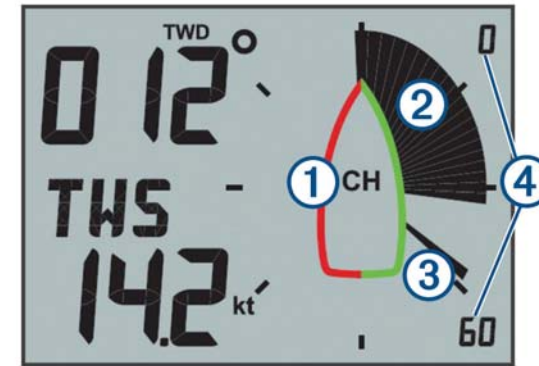
When the center of the wind rose is empty, the wind rose shows both true and apparent wind angles using two types of needles.



①	Shaded needle: the apparent wind angle (AWA)
②	Single needle: the true wind angle (TWA)

Close Hauled Wind Rose

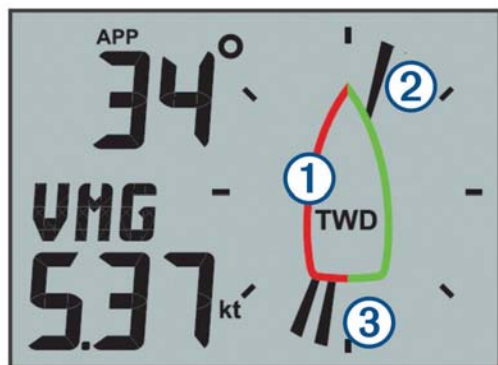
When CH appears in the center of the wind rose, the wind rose shows both the true and apparent wind angles in a focused section for close-hauled sailing.



①	CH: the wind rose is focused for close-hauled sailing.
②	Shaded needle: the apparent wind angle (AWA)
③	Single needle: the true wind angle (TWA)
④	Wind rose scale: the scope of the focused area, which adjusts automatically based on the direction of the boat.

Wind Direction Wind Rose

When TWD appears in the center of the wind rose, the wind rose shows the true wind direction using two types of needles.



①	TWD: the wind rose is showing the true wind direction.
②	Single needle: ithe direction the wind is coming from.
③	Double needle: the direction the wind is heading to.

Steer Pilot Mode

You can use the marine instrument to help you steer using a specific wind angle or information received from connected sensors and a GPS device.

You can also use the marine instrument to help when tacking.

Using the Steer Pilot in AWA or TWA Mode








Before you can use the steer pilot in AWA mode, you must connect the instrument to a wind sensor, either wirelessly or through the NMEA 2000® network.

Before you can use the steer pilot in TWA mode, you must connect the instrument to a wind sensor, either wirelessly or through the NMEA 2000 network, and you must connect it to a speed sensor or GPS device through the NMEA 2000 network.

You can enter a specific wind-angle value and use the instrument as a steering guide when sailing.

- 1 From an instrument screen, hold .

The instrument enters steer-pilot mode.






- 2 Select an option:
 - If **AWA** or **TWA** is shown, proceed to step 4.
 - If something other than **AWA** or **TWA** is shown, hold  until the text flashes.
- 3 Press  or  to select **AWA** or **TWA**, and press .
- 4 Press  or  to enter a numeric value for the wind angle to use when steering.
- 5 Press  to confirm the wind angle.
- 6 Steer the boat while keeping the needle pointing straight ahead.

Using Steer Pilot in BTW or CTS Mode

Before you can use the steer pilot in BTW mode, you must connect the instrument to a GPS device through the NMEA 2000 network.

Before you can use the steer pilot in CTS mode, you must connect the instrument to a GPS device, a heading sensor, and a speed sensor through the NMEA 2000 network.








You can use the instrument to help you steer to a waypoint on a connected GPS device.

- 1 Begin navigating to a destination on the connected GPS device.
- 2 From an instrument screen, hold . The instrument enters steer-pilot mode.
- 3 Select an option:
 - If **BTW** or **CTS** is shown, proceed to step 5.
 - If something other than **BTW** or **CTS** is shown, hold  until the text flashes.
- 4 Press  or  to select **BTW** or **CTS**, and press .
- 5 Steer the boat while keeping the needle pointing straight ahead.

Using Steer Pilot in MEM Mode

Before you can use the steer pilot in MEM mode, you must connect the instrument to a heading sensor through the NMEA 2000 network.

The marine instrument can help you when tacking by using stored port and starboard tack angles.


- 1 From an instrument screen, hold . The instrument enters steer-pilot mode.
- 2 Select an option:
 - If **MEM** is shown, proceed to step 4.
 - If something other than **MEM** is shown, hold  until the text flashes.
- 3 Press  or  to select **MEM**, and press .
- 4 Begin tacking port or starboard.
- 5 After you make your first trim, push  to store the heading value as **MEM1**.
- 6 Continue tacking.
- 7 After you make your second trim, push  to store the heading value as **MEM2**.
- 8 Continue tacking while observing the needle.

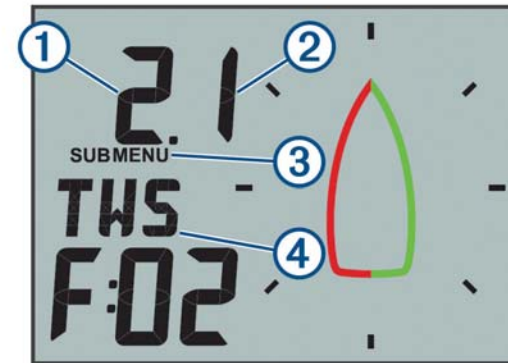
When the needle moves from the center, it indicates the timing for the next tacking maneuver.





The MEM1 and MEM2 values change automatically as you are tacking.

Configuration













You can configure the instrument displays and settings using the configuration menu.

There are two levels in the configuration menu, indicated by the decimal value that appears in the upper-left side of the screen when you press .



①	The value to the left of the decimal indicates the primary menu category.
②	The value to the right of the decimal indicates the sub-menu item within the primary menu category.
③	When MENU is shown, you can press  or  to move through the primary menu categories. When SUBMENU is shown, you can press  or  to move through the sub-menu items within the primary menu category.
④	The name of the primary menu category or sub-menu item.












Changing a Configuration Setting

- 1 From an instrument screen, press .
- 2 Press  or  to select a **MENU** category, and press .
- 3 Press  or  to select a **SUBMENU** category, and press . The value in the selected category flashes.
- 4 Press  or  to adjust the value, and press  to confirm the setting.
- 5 Select an option:
 - Press  to confirm the new value and return to the **SUBMENU** category.
 - Press  to cancel all changes and return to the **SUBMENU** category. The value in the selected category stops flashing.

- 6 Press  two times to return to the instrument screens.












Adjusting the Number of Instrument Screens

You can customize a maximum of four instrument screens.

- 1 From an instrument screen, press .
- 2 Press  or  to select **SYST**, and press .
- 3 Press  or  to select **PGES**, and press .
- 4 Press  or  to select the number of instrument screens (1 through 4), and press  to confirm the setting.
- 5 Press  two times to return to the instrument screens.

Customizing an Instrument Screen

You can customize the data shown in the three main areas of each instrument screen.

- 1 From an instrument screen, press  or  to select an instrument screen to customize.
- 2 Press .
- 3 Press  to select **DATA**.
- 4 Press  or  to select an option:
 - Select **SUBMENU 1.1** to change the lower-left (speed) value.
 - Select **SUBMENU 1.2** to change the upper-left (direction) value.
 - Select **SUBMENU 1.3** to change the wind rose function.
- 5 Press .
- 6 Press  or  to change the value.
- 7 Press  to confirm the change.
- 8 Repeat steps 4 through 7 for every value or function you need to change on the current instrument screen.
- 9 Press  two times to return to the instrument screens.

Configuration Menus

This section provides details for the items in the configuration menu, organized by menu and sub-menu decimal values.

1.0 DATA Configuration Settings

1.1 Upper data field configuration: Changes the wind direction or angle type on the current instrument page.

1.2 Lower data field configuration: Changes the speed type on the current instrument page.

1.3 Wind rose configuration: Changes the function of the wind rose on the current instrument page.

2.0 FILT Configuration Settings

In the filter configuration menu, you can adjust damping of the data received from the sensor before it is shown in each data category (2.1 through 2.9).

The higher you set the update rate (0 through 9) for each data category, more the data is dampened to remove the more extreme readings. For example, setting a higher filter for TWS may provide a more stable wind-speed reading in gusty conditions.

The glossary defines the data-type abbreviations used in this menu (page 7).

3.0 UNIT Configuration Settings

3.1 WIND: Changes the units of measure used for wind speed.

3.2 BSP: Changes the units of measure used for boat speed.

4.0 SENS Configuration Settings

4.1 ANGL: Adjusts the angle of the wind sensor to align with the front of the boat.

4.2 RSSI: Shows the signal strength between the instrument and the wireless wind sensor.

4.3 WXDR: Turns data from the connected wireless wind sensor on or off. When off, data from the connected wireless wind sensor is not transmitted over the NMEA 2000 network.

4.4 BSP%: Adjusts the calibration of boat speed information shown on the instrument.

NOTE: This adjustment affects the information as shown on the marine instrument only. Other devices using speed information from the NMEA 2000 network must be calibrated separately, if needed.

5.0 SYST Configuration Settings

5.1 LGHT: Adjusts the backlight level on a scale of 0 through 100%.

5.2 COLR: Sets the color of the instrument display.


Settings C00 through C06 are the custom colors available locally on the marine instrument.

Setting C07 is a custom-color setting controlled by other instruments on the NMEA 2000 network.

5.3 BEEP: Turns the key-press sounds on or off.

5.4 POWR: Allows you to change how the instrument turns on.

The AuT option turns the instrument on automatically when the NMEA 2000 network turns on.

The OFF option keeps the instrument off when the NMEA 2000 network turns on. The instrument must be turned on by pressing .

5.5 PGES: Sets the number of instrument pages.

5.6 SCRL: Sets and adjusts your instrument screens to scroll automatically. The value you set (0 through 9) represents the number of seconds between each screen change.

A setting of 0 turns off scrolling.

5.7 DFLT: Restores the marine instrument to factory default settings.

5.8 VRSN: Shows the installed software version.

Appendix

Abbreviation Glossary

This device uses abbreviations on many screens to indicate the menu, setting, or type of data being shown.

ALOG: (Analog sub menu) The filter sub menu that adjusts the dampening rate for wind data on the wind rose.

ANGL: (Angle sub menu) The sensor sub menu that adjusts the wind-angle offset of the data from the wind sensor.

APP: (Apparent Wind Angle) Shown in the upper-left data field. The wind angle measured relative to the bow of the vessel.

AWA: (Apparent Wind Angle) The wind angle measured relative to the bow of the vessel.

AWS: (Apparent Wind Speed) The measured speed of the wind.

BEEP: (Beep sub menu) The system sub menu that enables and disables key-press sounds.

BSP: (Boat Speed) The speed of the boat through the water.

BSP%: (Boat speed sub menu) The sensor sub menu that adjusts the speed data shown from a connected speed sensor.

BTW: (Bearing to Waypoint) The direction of travel towards a destination waypoint.

COLR: (Color sub menu) The system sub menu that changes the color of the instrument display.

CTS: (Course to Steer) Calculated course to a destination, compensating for drift.

DATA: (Data menu) The menu category containing instrument page configuration items.

FILT: (Filter menu) The menu category containing data filter configuration items.

LGHT: (Backlight) The system sub menu that adjusts the backlight brightness level.

MEM: (Memory - MEM1 and MEM2) Saved values for port and starboard, used when tacking in steer pilot mode.

PGES: (Pages sub menu) The system sub menu that configures the number of instrument screens shown.

POWR: (Power sub menu) The system sub menu that enables auto power-on.

RSSI: (Signal strength sub menu) The sensor sub menu that shows the signal strength between the instrument and the wireless wind sensor.

SENS: (Sensor menu) The menu category containing sensor configuration items.

STR: (Steer sub menu) The filter sub menu that adjusts the update rate for the steering guide.

SYST: (System menu) The menu category containing system configuration items.

TRU: (True Wind Angle) Shown in the upper-left data field. The angle of the wind, compensated by the forward speed of the vessel.

TWA: (True Wind Angle) The angle of the wind, compensated by the forward speed of the vessel.

TWD: (True Wind Direction) The true direction of the wind relative to north.

TWS: (True Wind Speed) The speed of the wind, compensated by the forward speed of the vessel.

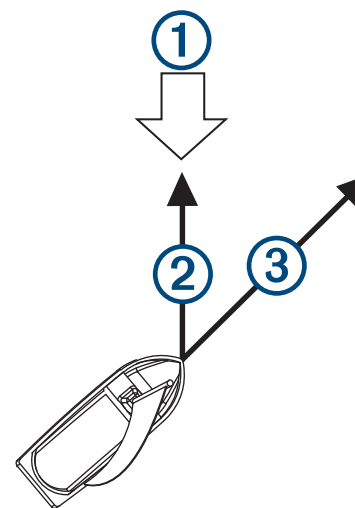
VMG: (Velocity Made Good) See page 8.

WIND: (Wind sub menu) The unit sub menu that adjusts the units of measure used to represent wind speed.

WXDR: (Wind transducer sub menu) The sensor sub menu that turns on and off data from the connected wind sensor.

Velocity Made Good

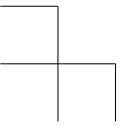
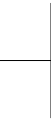
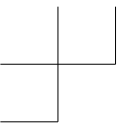
Velocity made good (VMG) is the speed into or away from the wind. VMG is calculated using boat-speed data from sensors on the NMEA 2000 network.

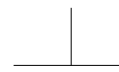
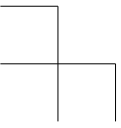
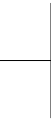
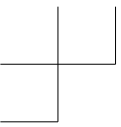


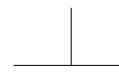
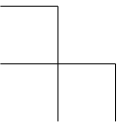
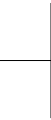
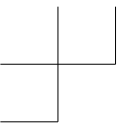
①	Wind direction
②	VMG
③	Boat speed

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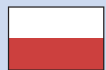
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