# FixPoint

electronic compass

**Connects directly to your chartplotter or NMEA2000**

**GPS coordinates correction**

**Mode 360 and Mode Aft**

**Genesis Live control**

**Sleep mode**

**Various ways of installation**

**Calibration on boat and in hands**

**Control via Wi-Fi**

**Firmware updates**

**...**

firmware version 2.71

# Content

## 1. Purpose

This device is an electronic compass for a vessel (boat, cutter, yacht, etc.) in order to determine the direction of the vessel's axis (vessel orientation) in real time.

Additionally, the device provides GPS coordinates correction function, mode 360, mode Aft and Sleep mode. Regularly new firmware versions are released and functionality is updated.

**The device connects directly to the chartplotter** via NMEA2000 socket, or to NMEA2000 network.

FixPoint 360 model works as a compass, and can also receive and process GPS coordinates from any connected GPS source.

FixPoint GPS model includes all the features of FixPoint 360, and also provides reliable and stable reception of GPS, GLONASS, Galileo and BeiDou thanks to the built-in GNSS module.

⚠ GPS coordinates correction, Mode 360 and Mode Aft are available if FixPoint 360 is connected to a Lowrance chartplotter. For Garmin, Humminbird, Raymarine and etc. this functionality is available with FixPoint GPS model or if FixPoint 360 is connected to NMEA2000 network that has multiple GPS sources.

**The both models work as a compass with chartplotters of any brand.**

## 2. Installation

The compass can be installed **anywhere** on the vessel.

Select a location with **minimal magnetic interference** (at least 50 cm away from the motor, battery, and any metal objects).

Search for the compass installation location in a place where there is no magnetic interference. Garage, boat trailer, underground utilities and so on can distort the magnetic field.

In addition, always check compass values on the water with the engine running (see 10).

⚠ When mounting, use only stainless steel screws (included).
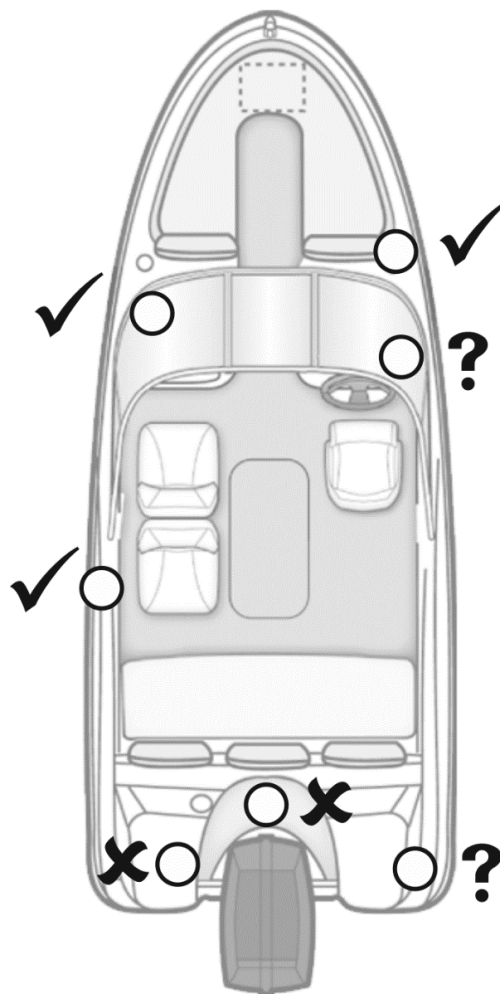
## 2.1. Installation location searching by magnetic compass

An ordinary magnetic compass may be used to find the installation location.

Hold the compass in your hands at the point of intended installation.

Move the compass up and aside from the vessel – **the arrow should not deviate**. A deviation of up to 20 degrees is acceptable.

Please note that there should be no magnetic interference (metal objects, underground utilities, etc.) aside of the vessel.
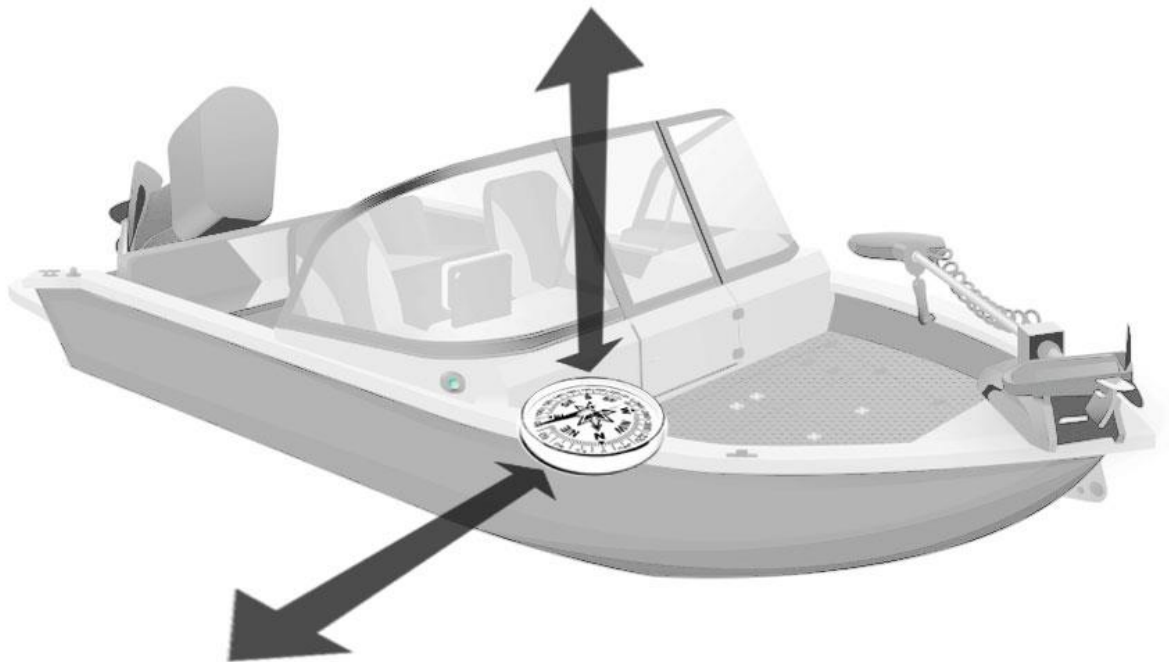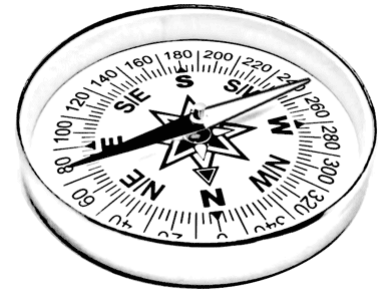
It is preferable to use FixPoint itself to find the installation location more precisely (see 2.2).

## 2.2. Installation location searching using FixPoint

Power up FixPoint, connect to it from your mobile device via Wi-Fi, open the compass control interface in the browser (see 6).

Go to the last tab – Compass.

### 2.2.1. Checking the readings during rotation

1. Hold FixPoint in your hands at the point of intended installation (as close to it as possible, above it). Direct the compass with the arrow forward along the vessel's axis.
Observe the reading in the browser.
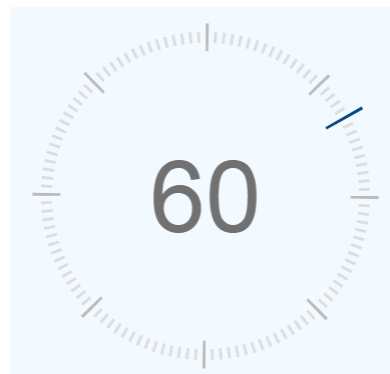
⚠ The first value can be any value, depending on where the vessel is currently oriented.

2. Turn the compass clockwise 90 degrees (arrow to right).
The value should also change by about +90 degrees.
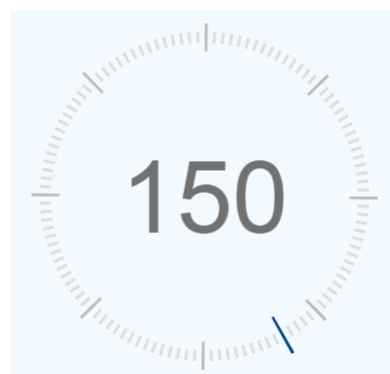
3. Turn the compass clockwise 90 degrees again (arrow to back).
The value should change by about +90 degrees.
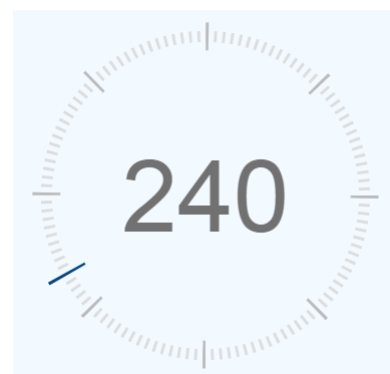
4. Turn the compass clockwise 90 degrees again (arrow to left).
The value should change by about +90 degrees.
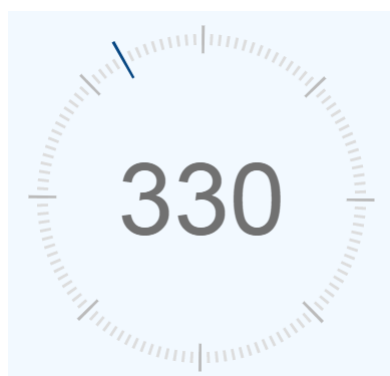
It is acceptable if the values changed not by 90 degrees, but, for example, by 60, then by 120. Such magnetic interference can be corrected by calibration on board (see 11.1).

The main thing is that when the compass is rotated, **the values change smoothly and synchronously with the rotation!**

If at any moment the value sticks, jumps quickly or goes in the opposite direction (starts to decrease) – a strong magnetic interference is detected, it is necessary to eliminate the interference or find another location to install the compass.

### 2.2.2. Checking the readings during movement

The next step is to check that the magnetic field does not change when the compass is moved up and aside from the vessel.
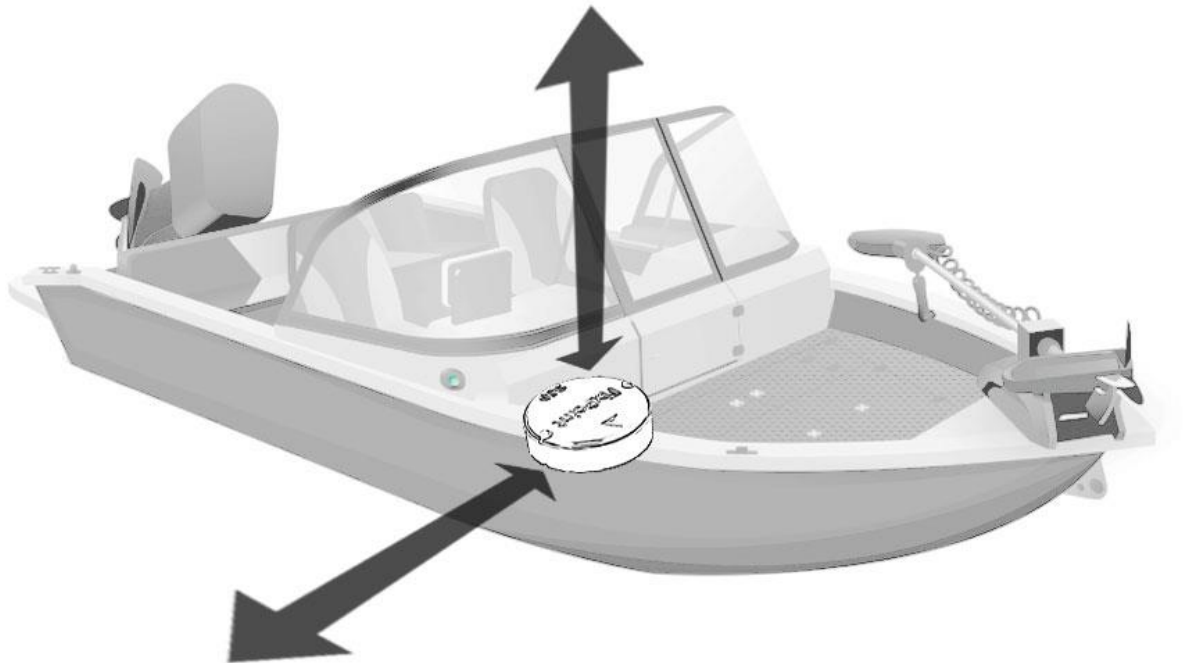


1. Hold FixPoint in your hands at the point of intended installation (as close to it as possible, above it). Direct the compass with the arrow forward along the vessel's axis.
2. Click on the dial in the browser. This will start the value analysis mode.
3. While keeping the compass pointing straight ahead **(don't rotate!)**, raise the compass 1 meter up and then bring it back down.
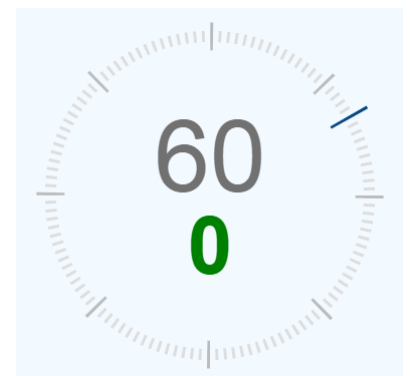
If the resulting deviation:

- up to 20 – the location is suitable for installation;

- up to 40 – the location is not ideal, but calibration on the vessel may help (see 11.1);

- over 40 – magnetic interference must be eliminated or another place for compass installation must be found.

Clicking on the dial will restart the analysis mode, double clicking will switch off the mode.

Repeat steps 1 – 3:

- Moving the compass aside from the vessel (not up), about 1 - 2 meters away.
  Note that there should be no magnetic interference (metal objects, underground utilities, etc.) aside of the vessel.

- Moving the compass aside from the vessel, having it turned 90 degrees in the horizontal plane (pointing the arrow to left or right).

⚠ When moving the compass, it should always be held in the same direction, not rotated!

### 2.3. Installation ways

Once the location has been found, the compass can be mounted on the vessel.

**Option 1:** Set the compass horizontally.
The arrow on the compass should point forward along the axis of the vessel.
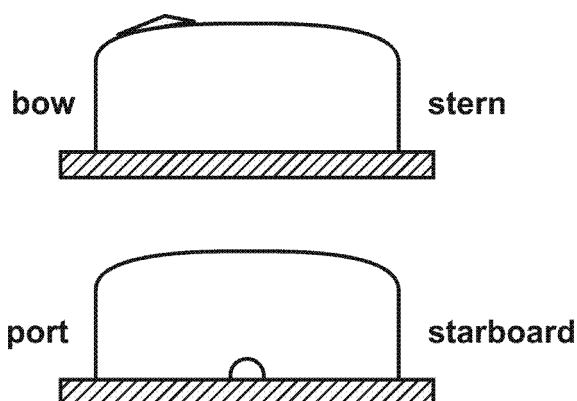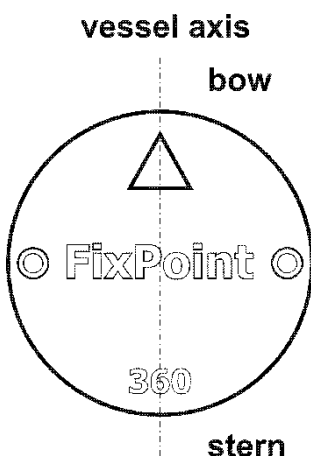


**Option 2.** It is possible to install the compass with a rotation relative to the vessel axis. The angle should be specified in the settings (see 11.3) or you should calibrate the compass on the vessel (see 11.1).

The compass can be installed on non-horizontal surfaces. The compass will automatically detect the tilt and correct the values.
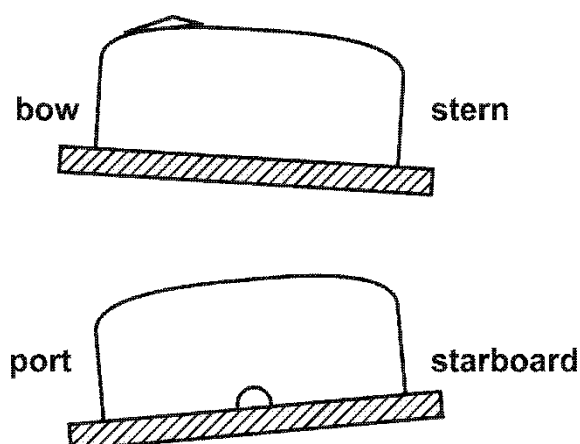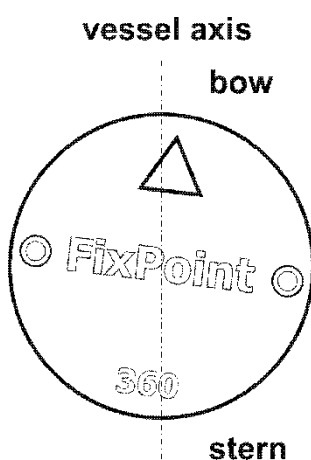


**Option 3.** It is allowed to install the compass sideways or upside down. In this case, the arrow on the compass should point towards the horizon (**you should not point the arrow up or down!**).

The compass will automatically determine its position and correct the values.

After installation, perform calibration on the vessel (see 11.1).

⚠ This option is not recommended for GPS model because reception of satellite signals is degraded.
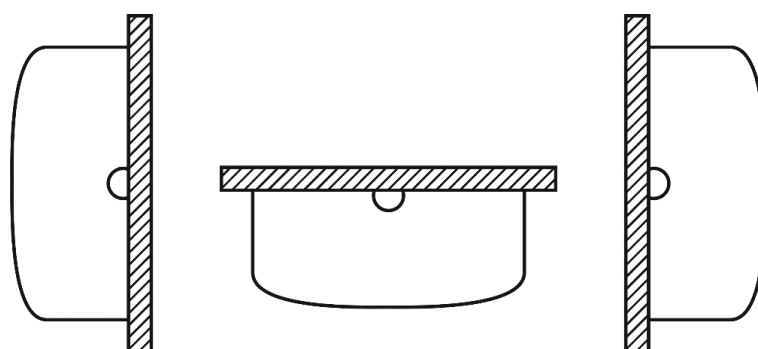
## 3. Connecting directly to a chartplotter

The compass connects directly to the chartplotter via NMEA2000 connector.

You also need to connect the compass power cable to a 12V power source.

⚠ Install a 1A fuse in the power circuit.
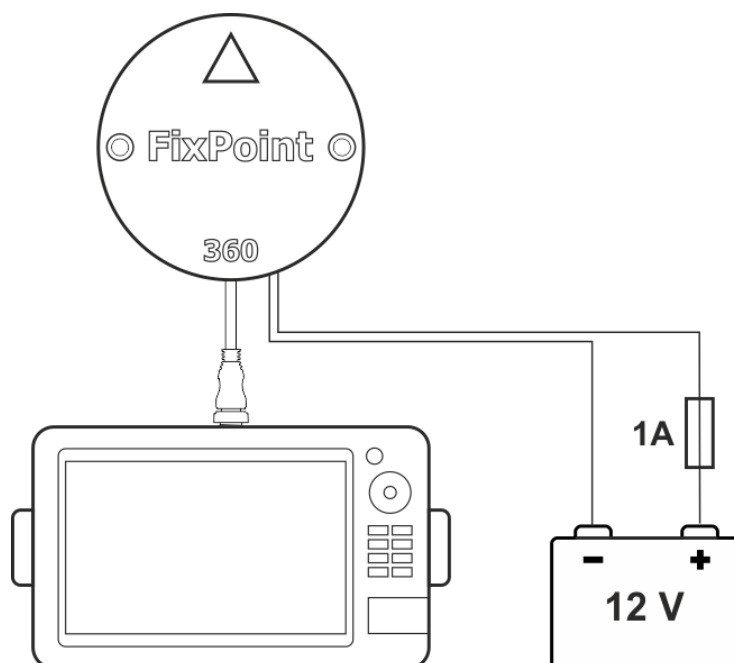
## 4. Connecting to NMEA2000 network

The compass connects to NMEA2000 network **instead of the female terminator**.

Since NMEA2000 network powered separately, **the compass power cable does not need to be connected!** The compass will be powered via NMEA2000 network.

⚠ If you need to connect the compass to a female output, use the special male-male adapter (sold separately).
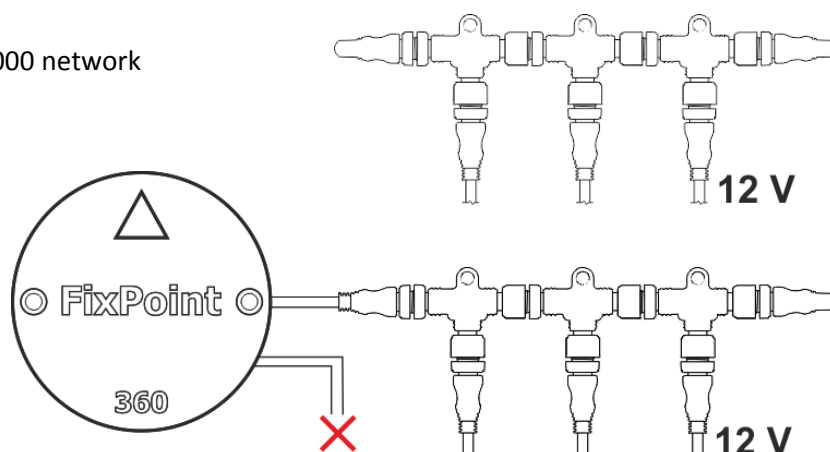
It is possible to power NMEA2000 network via the compass.
**Use this method only in exceptional cases when it is not possible to power NMEA2000 network separately.**

Connect the compass power cable to a 12V power source. Use a 1A fuse.

⚠ Do not power NMEA2000 network through the compass if the total network consumption exceeds 500mA!
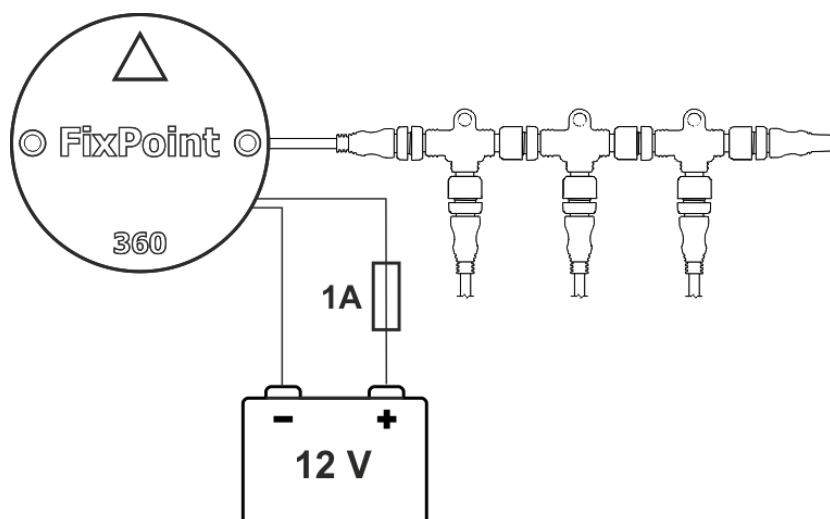
## 5. Setting up the compass in a chartplotter

**The simplest way to setup the compass in a Lowrance chartplotter – perform auto configuration.**

Select Settings – Network, click on Auto configure.

The chartplotter will set the compass as GPS and Heading source automatically.

⚠ The heading line is not displayed on the map until a communication with satellites has been established. Wait until it is established (for Lowrance chartplotters: the vessel icon will be displayed on the map without symbol **?** ).

For manual setup:

1. Go to Settings – Network – Data sources...

2. Open Vessel – Heading and select FixPoint.



To correct coordinates (see 7), Mode 360 (see 8) and Mode Aft (see 9) you should select FixPoint as the source of GPS data.

3. Open GPS – All Data and check that FixPoint is automatically selected or select it manually.



These settings should be performed once when connecting the compass for the first time. The chartplotter will save and restore them next time you turn it on.

To setup the compass on a chartplotter of another brand – refer to the corresponding chartplotter documentation.

⚠ GPS coordinates correction, Mode 360 and Mode Aft work in FixPoint 360 when it's connected to a Lowrance chartplotter. For Garmin, Humminbird, Raymarine and etc. this functionality is available in FixPoint GPS model, or if FixPoint 360 is connected to NMEA2000 network that has multiple GPS sources - for example, there are two chartplotters and the second chartplotter is selected as the compass GPS source (see 7).

# 6. FixPoint control interface

When power is supplied, the compass boots up and within 15 seconds creates a Wi-Fi access point named FixPoint360-XXXXXXXX or FixPointGPS-XXXXXXXX (depending on the model).

1. Connect to this Wi-Fi point using any device (phone, tablet, laptop).
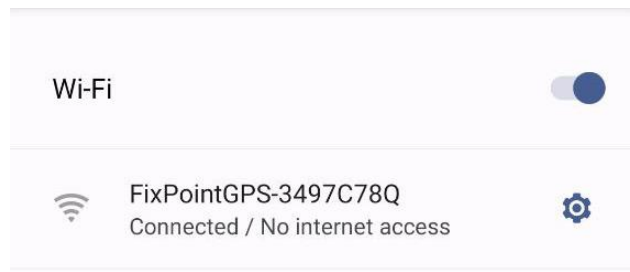
2. Open your browser and input **f.com** or 192.168.2.1 in the address bar.

   FixPoint control interface will be opened.
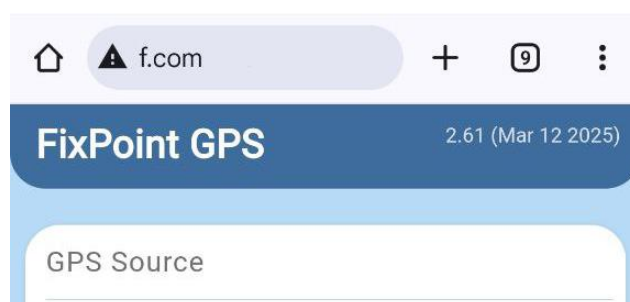
⚠ If the browser cannot open the page, reconnect to the Wi-Fi point and **confirm using the network without Internet access**, or disable Mobile Internet / Mobile data transfer (depending on the operating system and device manufacturer).

By default, the Wi-Fi point is active for 15 minutes (this parameter can be changed – see 12.3). To reactivate the Wi-Fi point, connect to it and open the control interface, you need to turn off and supply power to the compass again.

🄻 **For Lowrance you can activate the Wi-Fi point just from the chartplotter, with no need to turn off and supply power to the compass again.**

Go to Settings – Network – Device List.
Select FixPoint360 or FixPointGPS.
Click Configure button on the right.
Using Enable WAAS switch you can activate and deactivate the Wi-Fi point.

In FixPoint control interface, the model of the connected device (FixPoint 360 or FixPoint GPS) is displayed at the top, and the installed firmware version is in the upper right corner.

To switch between tabs (Main, Calibration, Settings, Compass), there is a fixed panel at the bottom.

The panes can be minimized and maximized by clicking on the title and their state is stored. The next time you open the interface, the panes will be restored.
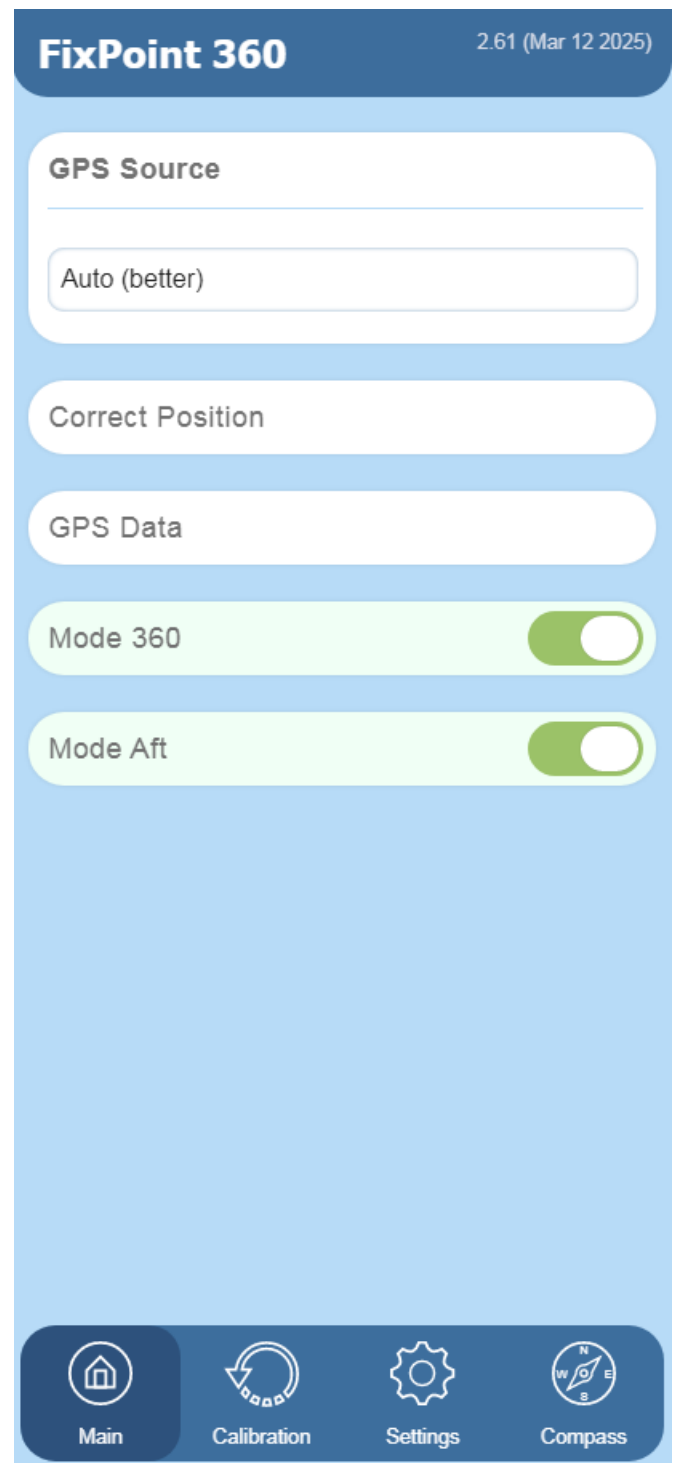
## 7. Correction of GPS coordinates

For accurate vessel positioning in relation to underwater objects and map building, **GPS coordinates must coincide with the position of the echo sounder transducer (sonar).**

Since the GPS receiver and sonar are always located at a distance from each other, accuracy is lost. FixPoint fixes this problem.

### 7.1. Correction setting

There can be several GPS source devices on board. For each of them (up to 5) you can set the coordinate correction. In FixPoint control interface, on Main tab, open Correct Position pane.

1. Select the device location number (from 1 to 5) and specify a name, if desired.

2. Measure and specify the distance from this mounting location to the sonar.

3. Specify which device is installed at this location.

4. Click Save.

For example, for a FixPoint 360 model and a single chartplotter, the settings would look like this.



⚠️  Note that for the model 360, you should measure and specify the distance from where the chartplotter (GPS source) is mounted, not from the compass itself.

For a FixPoint GPS model and a single chartplotter, the settings would look like this.
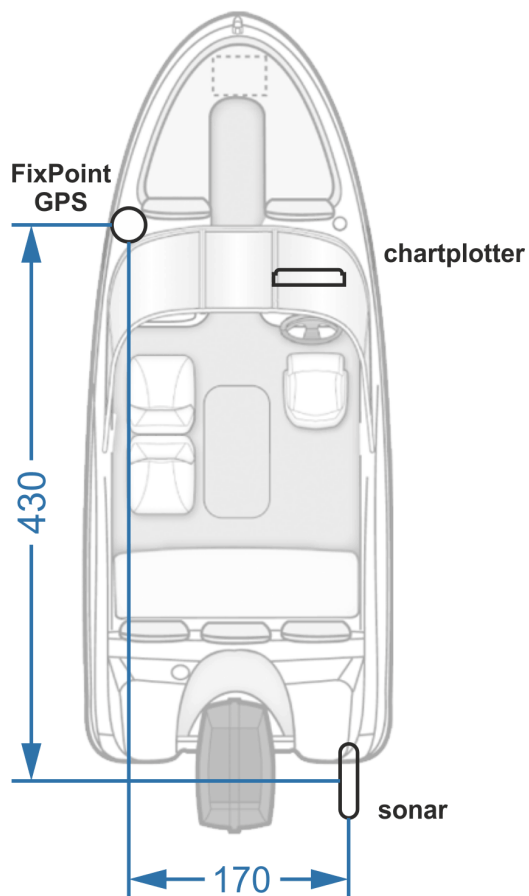


**Correct Position**

Device Installation Place

| 1 | Compass |

Correction

| Backward | — | **430** | + | cm |
| To Right | — | **170** | + | cm |

Device Installed

FixPoint (This Device)

Reset    Save
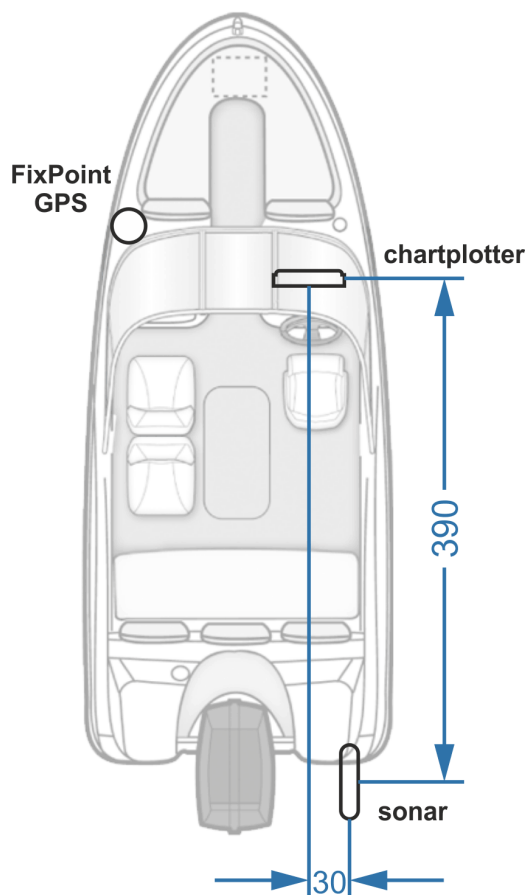


**Correct Position**

Device Installation Place

| 2 | Console |

Correction

| Backward | — | **390** | + | cm |
| To Right | — | **30** | + | cm |

Device Installed

HDS3-9 iGPS [3257433139]

Reset    Save

⚠ Thus, once you have set the correction for all devices (GPS sources), you can switch between sources in the future (see 7.2) and FixPoint will automatically apply the right correction (see 7.3).

⚠ The correction from the compass to the sensor must be set relative to the ship's axis. The direction of the arrow on the compass body is not important.

## 7.2. GPS source selection

As a GPS source FixPoint can use any device that transmits GPS data to NMEA2000 network (in case of direct connection – connected chartplotter).

FixPoint GPS model can also use its own built-in GNSS receiver, which supports simultaneous reception of signals from 4 systems (GPS, GLONASS, Galileo, BeiDou) with a frequency of 10 Hz.

To select the GPS source in FixPoint control interface, on Main tab, open GPS Source pane.

Underlined For FixPoint GPS model by default FixPoint is selected.

In this case, FixPoint uses its own GPS source to determine GPS coordinates and correct them.

But it is also possible to select any external GPS source:

- External Auto (auto-detection of the best external GPS source).
- A specific external device (GPS source) by its name.
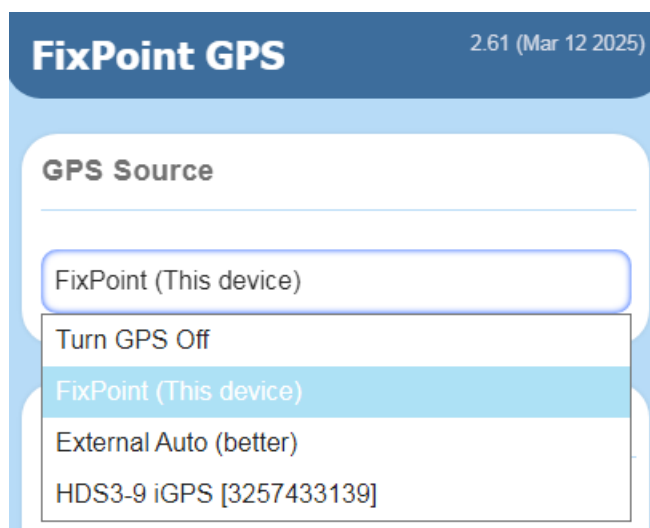
For FixPoint 360 model by default Auto (auto-detection of the best GPS source) is selected.

But you can also select any specific device (GPS source) by its name.

⚠ If a specific external device has been selected as the GPS source (not Auto) and then the device is unplugged, the compass will no longer see it. You will need to go back into the settings and select a different GPS source or set it to Auto.
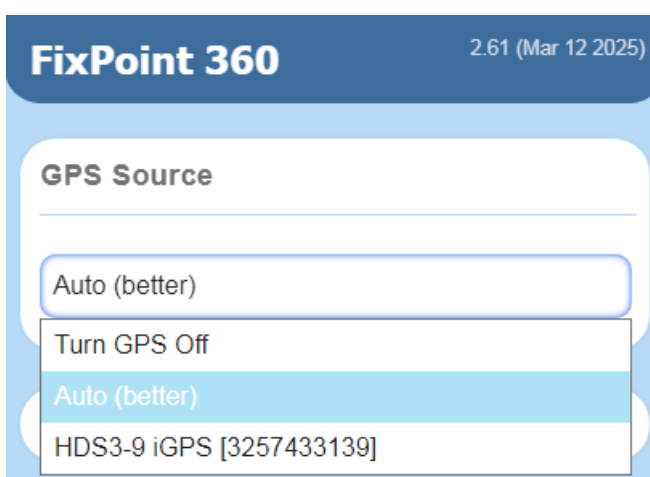
If, for some reason, you want to disable the compass from sending GPS coordinates, select Disable GPS. FixPoint will remain in the list of devices in the chartplotter, will work in "No GPS fix" mode, and will continue working as a compass (see 5).

## 7.3. Checking the correction

After setting the correction for all installed devices (see 7.1), you can switch between GPS sources (see 7.2) and FixPoint will automatically apply the right correction.

You can check this in FixPoint control interface, on Main tab, GPS Data pane.

If the correct name of the GPS source is displayed, right correction specified, and the coordinates before and after correction are updated every 2 seconds – FixPoint is working correctly.

⚠ In reality, FixPoint sends coordinates to the network much more frequently, at the same rate as the selected GPS source - typically 10 times per second (10 Hz).

**GPS Data**

GPS Source

FixPoint (This Device):

FixPointGPS [3497C78Q-GML] Software: 2.61 (Mar 12 2025) Address: 51

Correction

Backward 430 cm          To Right 170 cm

Coordinates before and after correction

53.979790          27.372387
53.979750          27.372364

Thus, FixPoint automatically applies the right correction and sends GPS coordinates that coincide with the location of the echo sounder transducer, i.e. the boat icon is displayed on the map exactly at the point where the transducer is installed.

**The error in displaying underwater objects on the chartplotter screen, constructing structural and depth maps has been eliminated.**

## 8. Mode 360

If you are at anchor, the course line jumps as it is not possible to determine the direction by GPS. Mode 360 links the course line to the compass line. The course line does not jump, and even if the map orientation is set to Course up, **the map is not being rotated.**

Additionally, Mode 360 is useful **to improve side scan imaging at low speeds, build a structural map around the vessel and accurately transfer points from the side scan to the map.**

To enable Mode 360:

1.  In FixPoint control interface, on Main tab, Mode 360 pane, turn on Mode 360.

2.  Set the speed range in which the mode will be activated
    (from 0 till 2 km/h by default).

3.  Specify course line rotation speed
    (2 km/h by default). The higher the speed, the faster the course line will tend to follow the compass line.

⚠️     This speed will be displayed on the chartplotter as the current SOG (speed over ground), that indicates that Mode 360 is active.

To see the real speed, use STW (speed trough water) value, which FixPoint is sending to NMEA2000 network as well.

When Mode 360 is turned on, it is automatically activated when the vessel speed is within the specified range, and deactivated when the vessel speed is different.

🟦 **For Lowrance you can turn on/off Mode 360 just from the chartplotter.**

⚠️ Make sure that this feature is activated in Advanced settings (see 12.6).

Go to Settings – Network – Device List.
Select **FixPoint 360:** ON|OFF X-Y km/h device, where

ON|OFF – displays the current mode status (turned on or off),
X-Y km/h – the speed range in which the mode is activated.

Click Configure button on the right.
Using Enable WAAS… switch you can turn on/off Mode 360.

When the mode is activated, the vessel course line tends to coincide with the compass line (vessel heading). This provides the following benefits:

## 8.1. Improving the side scan imaging at low speeds

When navigating at low speeds, especially in currents and strong winds, the boat does not move in a straight line. Because of this, the side scan picture is often blurred.

**When Mode 360 is active, the course line reacts faster to the vessel's deviations and the picture is improved.**

To keep Mode 360 active at low speeds, increase the Up to speed parameter – set it from 2 to 10 km/h. You can also increase the Course Line rotation speed.

## 8.2. Construction of a structural map

1. In the chartplotter, enable the overlay of side scan on the map (construction of a structural map) in Live or recording mode (if you want to save the resulting structural map).

2. Slowly rotate FixPoint and the side scan sensor (transducer) at the same time. This can be done on an electric or gas engine, rotating the vessel at a point, or by installing the compass and transducer on a rod and rotating it.

3. Having completed a full rotation (360°) you can see a structural map built around the vessel with the radius of the side scan. By continuing to rotate, you can update the map in real time.

**As a result, the structural map is built around the vessel located at the one point.**

It also can be useful when fishing from ice. The compass and side scan sensor can be mounted on a rod. Then you can put the sensor into the hole, and by rotating the rod, build a structural map in the chartplotter to see the bottom and fish at a great distance from the hole!

## 8.3. Setting a point on the side scan

At low speeds, the course often does not coincide with the heading (axis) of the vessel – drift by current and wind, slow movement on an electric motor and so on.

In this case, the cursor / point placed on the side scan (mark of an underwater object, fish) is transferred to the map incorrectly, since it is calculated from the course line, not from the heading line.

When Mode 360 is active, the course line coincides with the heading line.

**As a result, the point marked on the side scan is transferred to the map correctly.**

## 9. Mode Aft

**Mode Aft is useful when you are anchoring and fishing from the aft.**

It is functionally similar to Mode 360, but the course line is reversed. This helps you navigate better and make more accurate casts when fishing from the aft.

For more convenience, when anchored, you can set the map orientation – Course up.

To enable Mode 360:

1. In FixPoint control interface, on Main tab, Mode Aft pane, turn on Mode Aft.

2. Set the speed below which the mode will be activated (up to 1 km/h by default).

3. Specify course line rotation speed (10 km/h by default). The higher the speed, the faster the course line will be rotated when the mode is activated or deactivated.

⚠ This speed will be displayed on the chartplotter as the current SOG (speed over ground), that indicates that Mode Aft is active.

To see the real speed, use STW (speed trough water) value, which FixPoint is sending to NMEA2000 network as well.
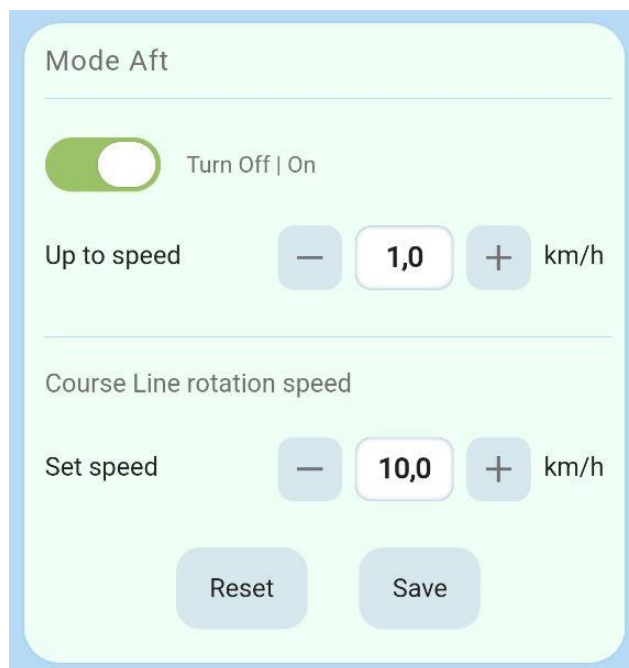
When Mode Aft is enabled, it is automatically activated when the vessel speed is below the specified value, and deactivated when the vessel speed becomes higher.

⚠ **When Mode Aft is active, DO NOT set points in side scan, as the point will be transferred to the map incorrectly (mirrored)!**

🔲 **For Lowrance you can turn on/off Mode Aft just from the chartplotter.**

⚠ Make sure that this feature is activated in Advanced settings (see 12.6).

Go to Settings – Network – Device List.
Select **FixPoint Aft:** ON|OFF X km/h device, where

ON|OFF – displays the current mode status (turned on or off),
X km/h – the speed below which the mode is activated.

Click Configure button on the right.
Using Enable WAAS… switch you can turn on/off Mode Aft.

## 10.    Checking the compass readings

After installing, connecting and configuring the compass (see 2 – 5), check its readings.

⚠ There should be no strong wind or waves. On a river, find the place with the lowest current.

Move the vessel at a speed of over 7 km/h in a straight line. Watch the course line and the heading (compass) line.

Turn 90 degrees and continue moving straight ahead in the other direction.

In this way, watch the lines when moving in all directions (conditionally - north, south, west and east).

- If, when moving in all the directions, the lines diverge insignificantly (up to 5 degrees), FixPoint works correctly. No calibration needed.

- If the lines diverge at approximately the same angle in all the directions, the compass is not installed along the vessel axis. It is necessary to set a correction (see 11.3) or to perform calibration on the vessel (see 11.1).

- If the lines diverge significantly and at different angles in the different directions, it is necessary to perform calibration on the vessel (see 11.1).
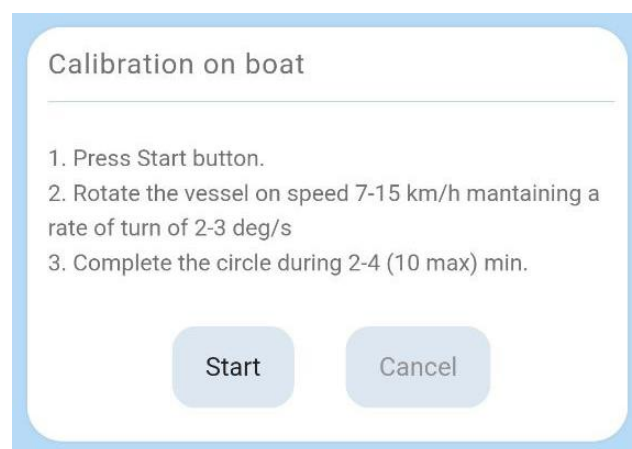
# 11.    Compass calibration

The strength of the Earth's magnetic field varies in different regions. If you move the compass to a different geographic area, even a calibrated compass may not work accurately. Calibrate the compass in the new region. In most cases, it is sufficient to perform calibration on the vessel (see 11.1).
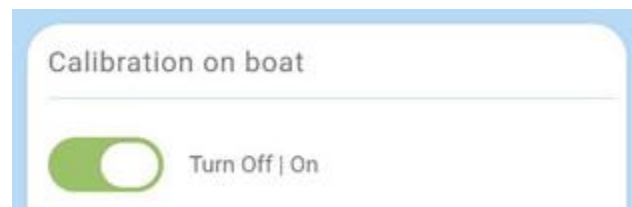
## 11.1.   Calibration on boat

⚠ There should be no strong wind or waves. On a river, find the place with the lowest current. Performing calibration on a river with a strong current will result in a divergence.

1.  In FixPoint control interface, on Calibration tab, Calibration on boat pane, click Start.

2.  Move the vessel in a circle at a speed of 7 - 15 km/h and a turning angle of 2 - 3 degrees.

3.  Continue until the calibration result appears in FixPoint control interface.

4.  If the calibration has completed successfully, check the compass readings (see 10). If the calibration fails, refresh your browser and try again.



After successful calibration, it will be turned on automatically.

It will also be possible to disable calibration.



Calibration on boat also corrects the error in setting the compass not along the axis (see 2). After successful calibration, the compass rotation setting (see 11.3) will be disabled. If necessary (for example, after changing the compass position), you can turn it on and set the needed angle, without recalibrating the compass on the vessel.

🅛 **For Lowrance you can run calibration just from the chartplotter.**

Go to Settings – Network – Device List.
Select FixPoint360 or FixPointGPS.
Click Calibrate button on the right.
Then click Calibrate button to run calibration.

Therefore, you can run or cancel calibration both on a phone or a charplotter. The interface of devices is in sync.

⚠ If calibration on boat fails – ends with an error or the lines do not converge (see 10) – in most cases, the cause is a **strong magnetic interference at the compass installation point**.
**Move the compass to another point** following the installation recommendations (see 2).
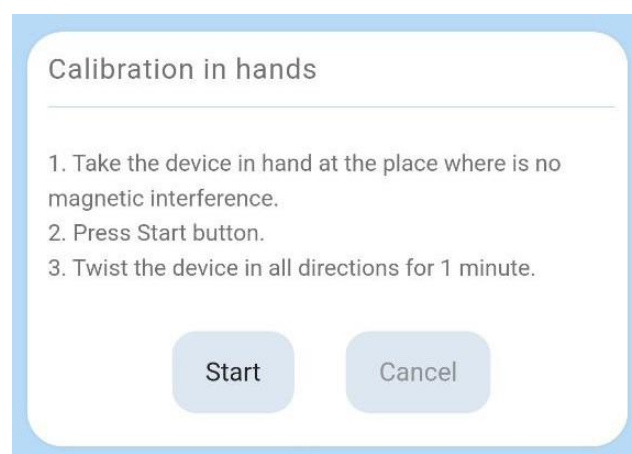
### 11.2. Calibration in hands

**FixPoint is pre-calibrated for the Central European region. In most cases, there is NO need to calibrate the compass in your hands.**

In case of incorrect values, it is sufficient to perform calibration on boat (see 11.1).

If calibration on boat fails when the compass is set at different points on the vessel, or if it is not possible to change the compass installation point, calibrate the compass in your hands. Then, if necessary, repeat calibration on boat.

⚠ Do not calibrate the compass indoors or near metal objects, avoid any magnetic interference. It is preferable to perform calibration in hands at the point (close above) where the compass is going to be installed.

1. Take the compass in your hands.

2. In FixPoint control interface, on Calibration tab, Calibration in hands pane, click Start.

3. Rotate the compass in all directions for 1 minute (just like calibrating a compass in a smartphone).

4. If the calibration has completed successfully, check the compass readings (see 10). If calibration fails, refresh your browser and try again.



After successful calibration, it will be turned on automatically.

It will also be possible to disable calibration.

After successful calibration in hands, calibration on boat (if performed) will be disabled. If necessary, perform calibration on the vessel again (see 11.1).
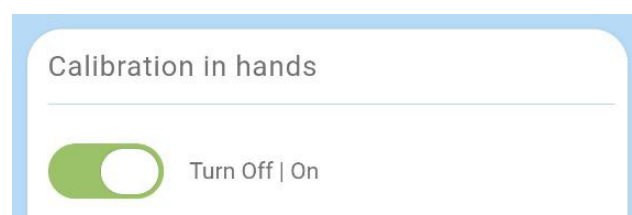


⚠ If after calibration in hands and subsequent calibration on boat, the compass reading is still incorrect – **turn off calibration in hands!** Try to find another point to install the compass (with less magnetic interference) and repeat **calibration on boat**.

### 11.3.  Compass rotation

If the compass is not installed along the axis of the vessel (see 2), and calibration on boat is not performed or the compass was rotated after calibration on boat (see 11.1), it is possible to set the angle of the compass "rotation".



1. In FixPoint control interface, on Calibration tab, Compass Correction pane, input the angle that you want to change the compass readings - clockwise with a plus sign, counterclockwise with a minus sign.
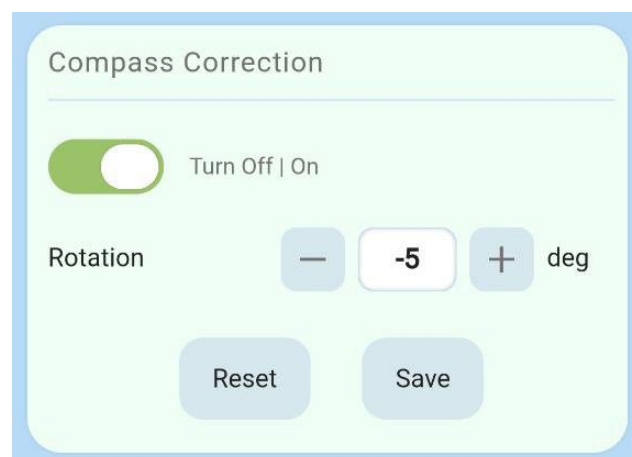
⚠️     If there is no minus sign on your keyboard, input two leading zeros – 00. They will be replaced with minus sign.

2. Click Save.

3. Enable correction.

    The correction can be disabled at any time.
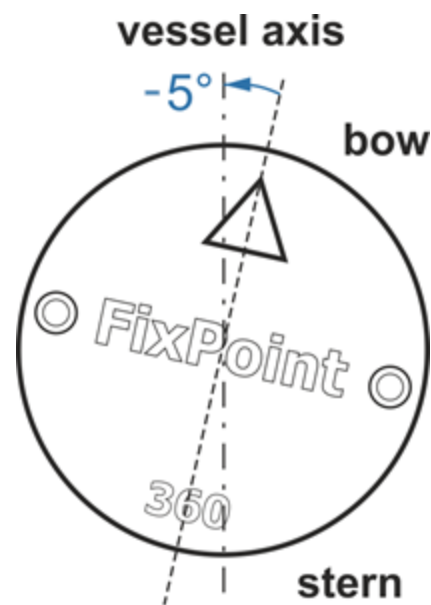


🇱 **For Lowrance you can set compass correction just from the chartplotter.**

Go to Settings – Network – Device List.
Select FixPoint360 or FixPointGPS.
Click Configure button on the right.
Input needed angle in Compass Offset field and confirm.

### 11.4.  Pitch and Roll correction

By default, FixPoint sends pitch and roll values to NMEA2000 network based on its own position.

If the compass is mounted on a horizontal surface with the compass arrow pointing forward, the pitch and roll of the compass and the vessel will match and no correction is necessary.

If the compass is mounted on a non-horizontal surface, sideways, upside down, or if the compass is rotated relative to the vessel's axis (see paragraph 2.3), the pitch and roll of the compass and the vessel will be different.

To send the pitch and roll of the vessel to NMEA2000 network, the correction must be set up and enabled.

⚠  The setting should be performed with the vessel in a stable horizontal position (on the water, without waves).

1.  In FixPoint control interface, on Calibration tab, open Pitch and Roll Correction pane.

2.  Specify by what angle the compass is rotated relative to the vessel's axis.

    For example, if the compass is mounted with the arrow to the right – enter 90, to the left – minus 90, backward – 180.

3.  Press Fix Zero.

    The compass will automatically detect the necessary pitch and roll correction and activate it.

**Pitch and Roll Correction**

Turn Off | On

At Installation: Rotation from the boat's axis

Rotation          —   **90**   +   deg

Correction          **4.5  -5.8**     deg

Reset          Fix Zero

**Now the compass sends the vessel's own pitch and roll values to NMEA2000 network.**

If you disable the correction, the compass own pitch and roll values will be sent to the network.

## 12.    Additional settings

In FixPoint control interface, additional settings are available on Settings tab.

### 12.1.    Interface language

On Language pane you can change the language of FixPoint control interface.

By default, the language is set according to your browser settings. If the browser language is not supported, English will be selected.

If necessary, select a different language. The selection will be saved automatically.

### 12.2.    Sleep Mode

When the compass stops receiving data via NMEA2000 network (chartplotter is off, network power is off, etc.), the compass will go into sleep mode with minimum consumption after a defined time.

The default setting is **15 min**.

If necessary, change go to sleep time. The selection will be saved automatically.

As soon as the compass starts receiving data via NMEA2000 network, it automatically reboots and returns to the working mode.

### 12.3.    Wi-Fi access point

1.  If necessary, change the access point name.

2.  If necessary, set a password for the access point.

3.  Change the time during which the access point will be active. The default setting is **15 min**.

4.  Click Save.

5.  If necessary, reboot the device to connect to the access point with a new name and password (see 12.7).

⚠ After setting up and checking the compass operation, it is recommended to set the minimum time to turn Wi-Fi access point off – **2 min**.

The compass consumes 2 times more power when the Wi-Fi access point is active.

Also, many smartphones block Internet access when connected by Wi-Fi. After disconnecting the access point, the smartphone automatically disconnects from Wi-Fi, and the Internet becomes available again.

If the mobile Internet was turned off manually (see 6), do not forget to turn it on again after disconnecting from the Wi-Fi access point!

## 12.4.  Firmware update

Firmware pane displays information about the current device software version.

To update the firmware, download the file with the new firmware to your device from the website www.FixPoint.pro.

Click Select file button, find the downloaded file on your device, select it, click Update.

If the update procedure is successful, the compass will reboot automatically.

⚠ The firmware file downloaded to a mobile device is saved in a specific folder (usually Download) depending on the device settings.

If you can't find the downloaded file, try downloading it through another application (another browser, Google disk, telegram, etc.), which will save the file in Download folder or your well-known folder (for example, Download/Telegram for telegram).
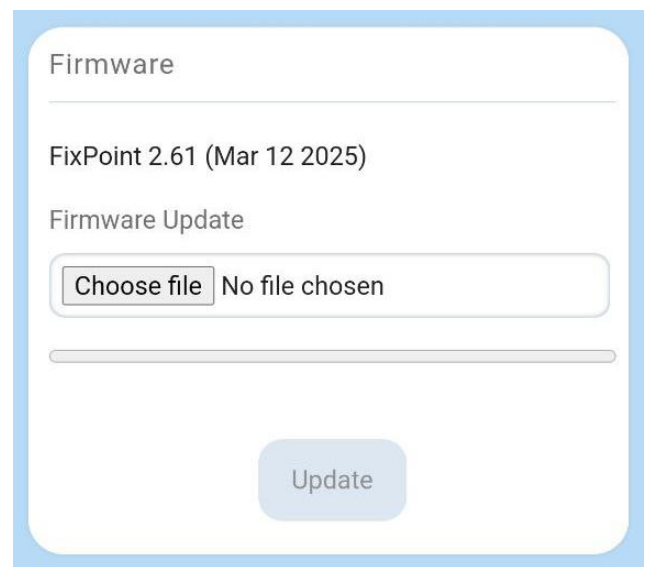
## 12.5.  LED control

When power is supplied, the compass boots up for 15 seconds, after which the LED lights up at maximum brightness.

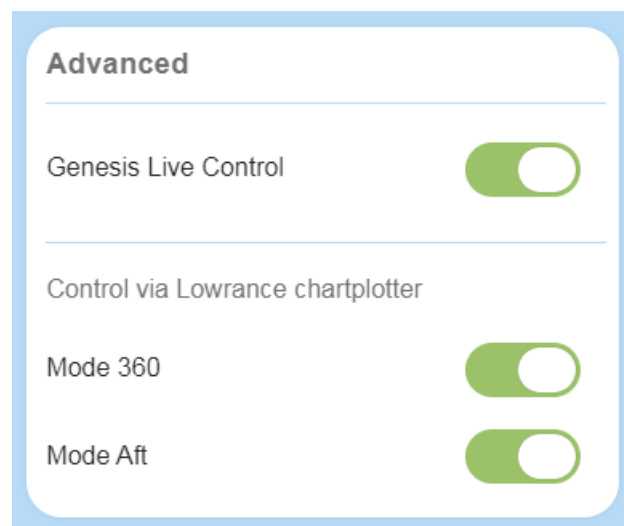This indicates that the compass has booted up and is working normally.

After 1 minute, the LED will switch to the specified brightness (default is 10%).

### 12.6.  Advanced settings

The Advanced pane displays additional features that you can activate:

- Genesis Live control – see 14.
- 360 and Aft modes control (on/off) via Lowrance chartplotters – see 8 and 9.

### 12.7.  Serial number and reboot

Device pane displays the name, serial number, MAC address, ID, and batch date of the compass.

By clicking Reboot button, you can reboot the compass without turning the power off / on.

# 13.     Resetting the access point and rolling back the firmware

If you set a password for the Wi-Fi access point (see 12.3) and forgot it, **the device will continue to work correctly**. But it will be impossible to connect to the Wi-Fi network and open FixPoint control interface.

To reset Wi-Fi access point settings, supply power to the compass for 3 - 7 seconds and turn it off. Repeat this action 3 times.

**The 4th time you turn it on, the access point settings will be reset.**

If the reset is successful, your mobile device will detect a Wi-Fi network named FixPoint360-XXXXXXX or FixPointGPS-XXXXXXX without a password. You can connect to the Wi-Fi access point again and open FixPoint control interface (see 6).

If the compass firmware has been updated at least once (see 12.4), it is possible to roll back to the previous version. Repeat the power on/off action 2 more times – 5 times in total.

**When you turn it on for the 6th time, the compass firmware will roll back to the previous one.**

## 14.    Genesis Live control

Lowrance Genesis Live has the following disadvantages:

- The map is constantly being rebuilt. It is not possible to disable map building.
- The map stops building at high speed (usually around 37 km/h).
- When the water level changes, the map is built from the new level. No depth correction.

FixPoint eliminates these disadvantages.

⚠  Make sure that this feature is activated in Advanced settings (see 12.6).

⚠ **In Lowrance chartplotter go to Settings – Network – Data sources… – Sonar – Depth and select FixPoint Sonar.**

In FixPoint control interface, on Main tab, open Genesis Live pane.

### 14.1.    Map building

You can disable and enable map building at any time by clicking on Turn off/on switch.

If you enable map building and specify a speed range, map building will be automatically enabled in this range and disabled at a different speed.

### 14.2.    Map building at high speed

Turn on Map Building at High Speed and set the speed above which the map will continue to build (default is 33 km/h).

When this speed is reached, the speed will "freeze" and Genesis Live will continue to build the map.

⚠  This speed will be displayed on the chartplotter screen as Speed Over Ground (SOG), indicating that the Map building at high speed mode is activated.

To see the real speed, use the Speed Trough Water (STW) data, which FixPoint also sends to NMEA2000 network.

**You can turn on/off Map building just from the chartplotter.**

Go to Settings – Network – Device List.
Select **FixPoint GL:** ON|OFF {HS=X km/h}, where

> ON|OFF – displays the current Map building status (turned on or off),
> HS=X km/h – when Map building at high speed is enabled, displays the specified speed.

Click Configure button on the right.
Using Enable WAAS… switch you can turn on/off Map building.
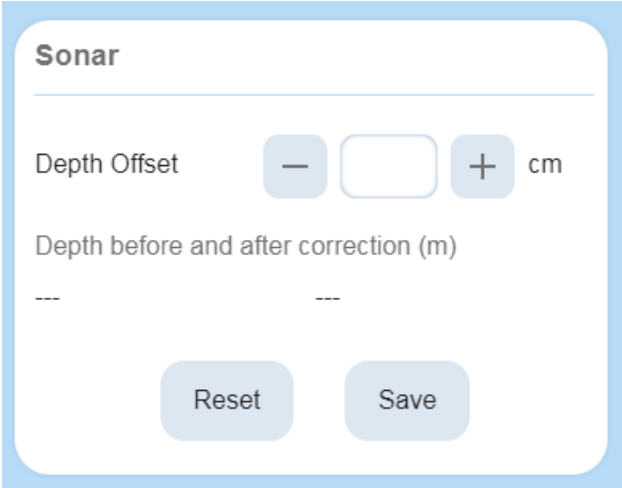
## 14.3.   Depth correction

If you started building a map at one water level and then the level changed, you must set a depth correction so that the map continues to build from the initial level without distortion.

1. In FixPoint control interface, on Main tab, open Sonar pane.

2. Specify the needed depth correction.

3. Click Save.

The depth before and after correction is displayed below.

If Sonar is stopped in your chartplotter, dashes are displayed instead of depths.

If Map building is disabled, only the depth before correction is displayed.



Thus, Genesis Live will continue to build the map based on the correction.

⚠ At the same time Sonar will show real depths (without correction).

**You can specify a depth correction just from the chartplotter.**

Go to Settings – Network – Device List.
Select **FixPoint Sonar:** X cm, where

> X cm – the current specified depth correction.

Click Configure button on the right.
Specify a new depth correction in Depth Offset input field.

## 15.    Technical characteristics

Power supply voltage: DC 9 - 16 V.

Power consumption (amperage, at 12 V supply voltage):

- FixPoint 360 model: 20 mA.
- FixPoint GPS model: 31 mA.
- Both models in sleep mode: 3 mA.

Additional consumption:

- Chartplotter connected via NMEA2000 connector: 15 – 20 mA (depending on the chartplotter model).
- Active Wi-Fi point: 27 mA.

Housing: shockproof, UV-resistant.

Power wire: 160 ± 5 cm, copper, 2 x 20 AWG.

Data wire: 145 ± 5 cm, shielded, copper, 4 x 22 AWG.

Dust and moisture protection: IP67.

Operating temperature: -20 to +40 °C.

Net weight: 260 ± 20g.

GNSS specifications (for FixPoint GPS model)

GNSS: Simultaneous reception of GPS, GLONASS, Galileo, BeiDou.

SBAS: WAAS, EGNOS, MSAS, GAGAN.

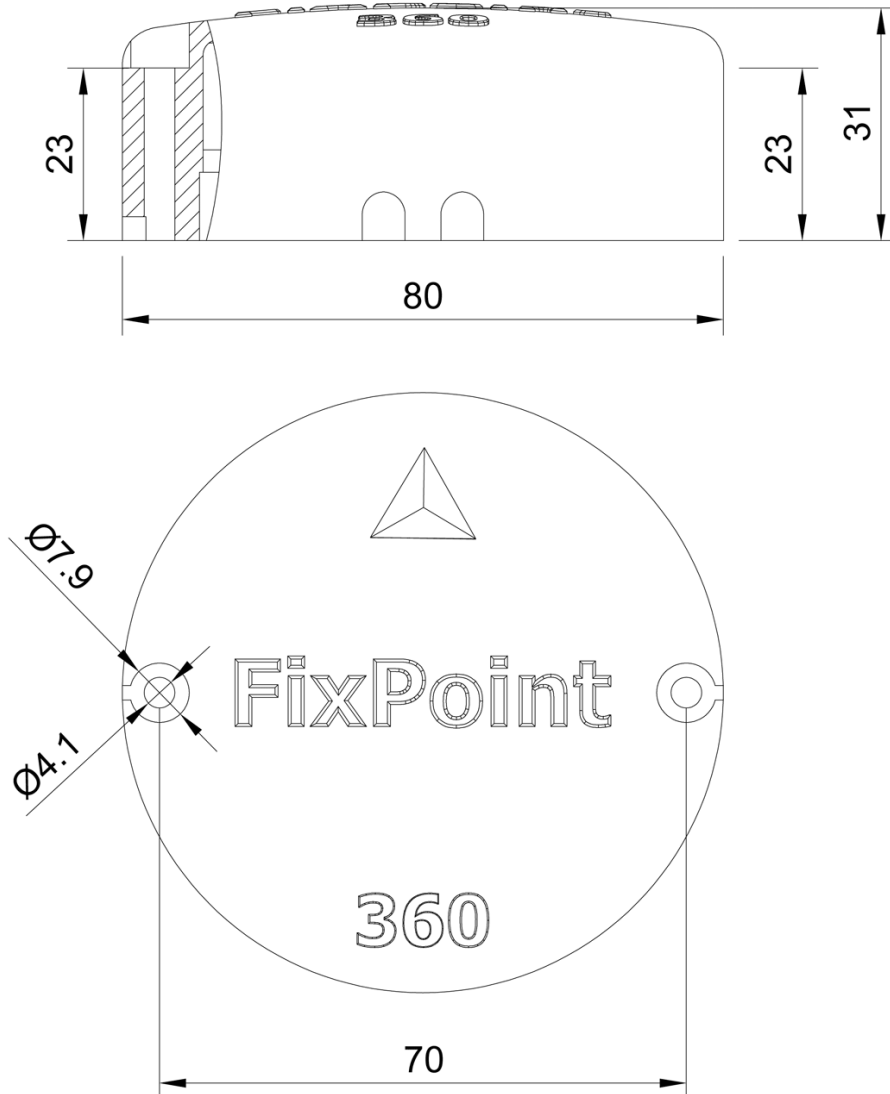Positioning accuracy (CEP): 1.5 м.

Velocity accuracy: 0.05 m/s.

Refresh rate: 10 Hz.

Cold start: 23 sec.

Hot start: 1 sec.

## 16.    Sizes

FixPoint body has the following sizes:

Mounting screws 2 pcs (included):

3.5 x 38 mm, DIN 7981, stainless steel A4.