LXNAVIGATION

NAVIA SENSE

Navia Sense Installation manual

Contents

Document information

0.1 Abstract

This document represents the installation manual for the Navia Sense. The user manual, release notes, dataport and additional info can be found on **www.lxnavigation.com**.

0.2 Document status

Document status: PUBLIC

Document status	Explanation
Internal	Intended only for LX navigation staff
Public	Available publicly to all
Personal	Intended for a specific person and/or company, noted on this page
Dealer	Intended for a specific dealer, noted on this page
Manufacturer	Intended for a specific manufacturer, noted on this page

0.3 List of applicable products

Device	Part number	HW Version
Navia Sense Airplane	LX02000780	1.0
Navia Sense Airplane Pro	LX02000730	1.0
Navia Sense Airplane Pro HS	LX02000740	1.0
Navia Sense Gliding	LX02000720	1.0
Navia Sense Gliding Pro	LX02000510	1.0

0.4 Revision history

Document name	Document revision	Date	Revised by	Approved by	Notes
N_SIM	R1	20.03.2026	N.S.	N.S.	initial release

Overview

Navia Sense is a compact, high-precision sensing module designed to provide reliable environmental and flight-parameter data for gliders and light aircraft. It is part of the Navia family of devices.

By leveraging state-of-the-art MEMS technology and advanced sensor fusion algorithms, the Navia Sense delivers instantaneous, real-time measurements for attitude (AHRS), airspeed, altitude, vertical speed, and 3D GNSS positioning.

Industry-Leading 25 Hz GNSS

The integrated GNSS receiver in the Navia Sense operates at a remarkable **25 Hz refresh rate**—the highest available in any device of its class. This allows for a significantly higher data refresh rate and exceptionally precise navigation and tracking.

When paired with the Navia Core Pro, the Navia Sense guarantees exceptional data redundancy and system reliability, ensuring pilots have continuous access to critical flight metrics even in challenging operational environments.

Sensor Limitations & High-Speed Applications

The standard Navia Sense modules are equipped with highly sensitive 0–100 mBar differential pressure sensors. While these provide exceptional accuracy for gliders and standard light aircraft (up to 250 kts), they have physical limits. For high-speed airplanes exceeding these parameters, LX navigation is able to add a high-speed sensor. This is available in our dedicated high-speed version (**Sense Airplane Pro HS**), which is capable of safely measuring airspeeds up to 500 kts.

Navia Sense comes in specific hardware and software configurations tailored for either gliders or powered airplanes.

- Sense Gliding *(Note: The physical AHRS module is not installed in this base version. It can be upgraded later by returning the unit to LX navigation for service.)*
- Sense Gliding Pro
- Sense Gliding Pro+ *(Software upgrade from Sense Gliding Pro)*
- Sense Airplane
- Sense Airplane Pro
- Sense Airplane Pro HS

All versions of Navia Sense have the same housing and connectors, so this installation manual is valid for all versions.

License-Enabled Features

To offer maximum flexibility, the Navia Sense includes two powerful software-licensed features that can be unlocked:

- **IGC Flight Recorder:** Unlocks the integrated, high-level secure flight logger.
- **Gliding Pro+:** Enables an advanced 3D wind calculation engine. This feature utilizes the inertial platform to calculate real-time air mass movement, allowing for significantly more precise variometer readings and accurate wind data.

Navia Sense Versions and Comparison

The tables below outline the specific capabilities, sensors, and part numbers for each version of the Navia Sense.

2.1 Gliding Versions

Feature	Sense Gliding	Sense Gliding Pro	Sense Gliding Pro+
Part Number	LX02000720	LX02000510	LX09000100 (License)
Dedicated TE probe port	Yes	Yes	Yes
Highest level IGC flight recorder	Yes	Yes	Yes
High accuracy OAT	Yes	Yes	Yes
High accuracy airspeed sensor	Yes	Yes	Yes
Field pressure calibration	Optional	Optional	Optional
AHRS	No	Yes	Yes
Instant Wind calculation	No	Optional (Pro+ ready)	Yes
Inertial variometer	No	Optional (Pro+ ready)	Yes

2.2 Airplane Versions

Feature	**Sense Airplane**	**Sense Airplane Pro**	**Sense Airplane Pro HS**
Part Number	LX02000780	LX02000730	LX02000740
High accuracy airspeed sensor	Up to 250 kts	Up to 250 kts	Up to 500 kts
Field pressure calibration	Optional	Optional	Optional
High accuracy OAT	Yes	Yes	Yes
25 Hz GNSS	Yes	Yes	Yes
AHRS	Yes	Yes	Yes
SBAS (WAAS, EGNOS, QZSS)	Yes	Yes	Yes
Angle of Attack (AOA) sensor	No	Yes	Yes

IGC Flight Recorder (Gliding Versions)

The **Sense Gliding** and **Sense Gliding Pro** hardware versions feature an integrated, high-level IGC-approved flight recorder (available as a license-enabled feature). This built-in secure logger automatically records flight data, including precise GNSS position, altitude, and engine noise level (ENL), complying with the highest sporting standards for soaring.

Fixed 1 Hz Recording Rate
To guarantee the highest resolution of flight data without complex user configurations, the Navia Sense records files at a fixed **1 Hz rate** (one track point per second). There are no settings required or available to adjust this recording interval, ensuring your logs always capture maximum detail for analysis and competition scoring.

Automatic Detection and High-Level Approval
The Navia Sense features intelligent automatic flight detection. It will automatically begin recording upon detecting takeoff parameters (speed and altitude changes) and safely stop and finalize the log after landing, removing the need for manual pilot intervention. Because it is a high-level approved logger, the generated files are fully valid for all FAI badge claims, diplomas, and world record flights.

Engine Noise Level (ENL) and Means of Propulsion (MOP)
The Navia Sense integrates an internal acoustic ENL (Engine Noise Level) sensor. This built-in sensor is fully sufficient to detect and record engine operation for gliders equipped with standard piston engines. However, for gliders equipped with Jet engines or Electric propulsion systems, the acoustic profile (or lack thereof) requires an external MOP (Means of Propulsion) device. For these aircraft, the addition of a **Navia MOP Jet** or **Navia MOP Electro** is mandatory to provide valid engine operation data for the IGC file. Detailed installation instructions for the MOP can be found later in this manual.

Internal Security Battery and Tamper Protection
To qualify as a highest-level IGC flight recorder suitable for all types of flying—including world record flights, highest badge claims (e.g., Diamond badges), and all competition flying—the Navia Sense is equipped with a dedicated internal security battery. This battery ensures the internal hardware tamper switches remain active and continuously monitor the device's physical integrity even when the main aircraft power is completely disconnected.
The battery protection system has an expected lifespan of more than 5 years. LX navigation strongly recommends having this internal battery replaced every 5 years during the mandatory barocalibration procedure.
In rare cases, if the internal battery depletes before this 5-year interval, a **"Seal not valid"** message will be prominently displayed on the standalone Wi-Fi portal and any connected Navia Displays. In this state, the Navia Sense will still function and record IGC flight logs; however, the logs will **not** be signed with a valid cryptographic G-record, meaning they cannot

be used to verify flight integrity for official claims or competitions.

WARNING

No User-Serviceable Parts: There are absolutely no user-serviceable parts inside the Navia Sense. Opening the device enclosure will immediately trip the internal tamper switches, permanently invalidating the IGC security seal. All repairs, battery replacements, and calibrations must be performed directly by LX navigation or an authorized service partner.

Storage and Data Transfer

The internal solid-state memory of the Navia Sense is capable of storing thousands of hours of flight logs. Flight logs are securely generated within the Navia Sense and seamlessly transferred to the Navia Core Pro system. Pilots can easily access, review, and download their digitally signed IGC files for analysis or competition validation via the connected Navia Display. Ensure your GNSS antenna is properly installed with a clear view of the sky to guarantee valid cryptographic signatures and continuous tracking on your flight logs.

Standalone Operation & Wi-Fi Portal

The Navia Sense can also be used as a standalone IGC flight recorder. When the device is **not** connected to a Navia Core Pro, it will automatically create its own Wi-Fi Access Point. The network SSID will appear as **Navia Sense xxxxx** (where *xxxxx* is your device's unique serial number). Each device has a unique password.

Once connected to this Access Point with your smartphone, tablet, or laptop, the Navia Sense serves a dedicated web portal. If the portal does not open automatically upon connection, open your web browser and navigate to **192.168.4.1**.

From this standalone portal, users can easily:

- Check the flight logbook and download flights.
- Transfer waypoint files.
- Create and declare tasks.
- Configure logger settings (Pilot, Co-pilot, and Airplane information such as registration, callsign, and class).
- Configure and trigger a PEV (Pilot Event).

NOTE

If the Navia Sense is connected to a Navia Core Pro system, the standalone Wi-Fi is disabled. In this integrated setup, all logger configuration, task declaration, PEV triggering, and flight downloading are seamlessly managed directly through the Navia Core Pro and the connected Navia Displays.

3.1 IGC File Structure and Sample

The Navia Sense strictly adheres to the Technical Specification for IGC-approved GNSS Flight Recorders. The IGC file consists of specific records, which are labeled at the beginning of each line with a letter (such as A, H, B, or G) followed by the corresponding data.
Below is an example of what a standard Navia Sense IGC file header and track log looks like:

```
ALXN0RTFLIGHT:1
HFDTE300326
HFFXA015
HFPLTPILOTINCHARGE:Jan Vovk
HFGTYGLIDERTYPE:Discus 2c
HFGIDGLIDERID:S5-VVJ
HFDTM100GPSDATUM:WGS-1984
HFRFWFIRMWAREVERSION:1.20
HFRHWHARDWAREVERSION:1.00
HFFTYFRTYPE:LX Navigation Navia Sense
HFGPS:NavSpark Skytraq PX1125S-02
HFPRSPRESSALTSENSOR:TE Connectivity Solutions MS5607
HFCIDCOMPETITIONID:VJ
HFCCLCOMPETITIONCLASS:Standard
I053638FXA3940SIU4143GSP4446ENL4749IAS
F083000030608111417192225 31
B0830004621500N01411400EA0051200515015100000000000
B0831004621500N01411400EA0051200515015100000000000
B0832004621500N01411400EA0051400517015100600000070
G64F46C8B7A4581CFE0991CDF4E9F9549FB2AC8D567977F82AF45A913AFDEC2E0
```

Understanding the IGC Segments:

- **A-Record:** This record is mandatory and must be the first line in the file. The letter `A` is followed by the manufacturer code (e.g., `LXN` for LX Navigation) and a unique identifier such as the device serial number or flight identifier (`0RTFLIGHT:1`).
- **H-Record (Header):** The `H` record indicates the file header information. The `F` in the second position stands for Flight Recorder. This is followed by a three-digit letter code defining the parameter:
  - `DTE`: The date of the flight (format DDMMYY), e.g., 30 March 2026 (`300326`).
  - `FXA`: The satellite fix accuracy (e.g., `015` meters).
  - `PLTPILOTINCHARGE`: The name of the pilot in charge (e.g., `Jan Vovk`).
  - `GTYGLIDERTYPE`: The glider manufacturer and model (e.g., `Discus 2c`).
  - `GIDGLIDERID`: Your glider registration or callsign (e.g., `S5-VVJ`).
  - `DTM100GPSDATUM`: The geodetic datum (e.g., `WGS-1984`).

  - `RFW` & `RHW`: Firmware (e.g., `1.20`) and Hardware revisions (e.g., `1.00`) of the Navia Sense.
  - `FTYFRTYPE`: Manufacturer name and model (e.g., `LX Navigation Navia Sense`).
  - `GPS` & `PRSPRESSALTSENSOR`: Hardware details such as the GNSS receiver (e.g., `NavSpark Skytraq PX1125S-02`) and pressure sensors (e.g., `TE Connectivity Solutions MS5607`).
  - `CIDCOMPETITIONID`: Competition ID (e.g., `VJ`).
  - `CCLCOMPETITIONCLASS`: Competition Class (e.g., `Standard`).

- **I-Record (Fix Accuracy):** The `I`-record defines the structure of subsequent `B`-records, specifying which extensions are present and their byte positions. This allows the device to include additional data fields beyond the standard IGC format.

- **F-Record (Frame Counter):** The `F`-record provides source identifier and timing information for the recording system.

- **B-Record (Track Log):** The `B`-record represents the core flight data and is written exactly once every second (1 Hz). Let's break down the sample `B0830004621500N01411400EA00512005150151000000000000`:

  - `083000`: Current UTC time (08:30:00).
  - `4621500N`: Latitude (46 degrees, 21.500 minutes North).
  - `01411400E`: Longitude (014 degrees, 11.400 minutes East).
  - `A`: Indicates a valid 3D fix (altitude information is valid). A `V` would mean a 2D fix or invalid GPS data.
  - `00512`: The QNE Pressure Altitude in meters (512m). This is based on the ICAO standard atmosphere.
  - `00515`: The GNSS Altitude in meters above WGS84 (515m).
  - Additional extensions for enhanced data logging as defined by the `I`-record.

- **G-Record (Security Signature):** Because the IGC file is used for competitions and badge claims, it is cryptographically signed to prevent manipulation. The `G`-Record contains this digital signature. If the file is altered manually, the signature validation will fail.

Calibration and Certification

Every Navia Sense unit undergoes rigorous factory calibration before delivery, which includes precise multi-point calibration of all internal pressure sensors.

Certificate of Calibration (Replacing Traditional Barocharts)
In the past, pilots received a traditional barocalibration chart that displayed etalon values versus measured values. Because the Navia Sense is calibrated at multiple points with real-time linear interpolation applied internally, the recorded and measured data is already inherently calibrated. Therefore, we no longer provide the legacy barochart.
Instead, every device is issued a formal **Certificate of Calibration**. This certificate details the calibration tool used, the date of calibration, the next due date, and the operator. This official document fully replaces the traditional barochart and satisfies all requirements for FAI Badges, world record flights, and international competitions.

5-Year Recalibration Requirement
For devices utilizing the IGC flight recorder, the mandatory calibration interval is **5 years**. Every 5 years, the Navia Sense must be returned to LX navigation or an authorized partner for a factory recalibration of its altitude sensors and replacement of the internal security battery to maintain its highest-level IGC approval status. **There are no user-serviceable parts inside; do not attempt to open the device to replace the battery yourself.**

User Calibration via Wi-Fi Portal
In addition to the factory baseline, the Navia Sense allows for manual user calibration to fine-tune local display readings. To perform a user calibration:

1. Connect to the Navia Sense standalone Wi-Fi Access Point.
2. Open your web browser and navigate to **192.168.4.1**.
3. In the portal, navigate to the calibration settings where you can adjust the user calibration parameters.

From this portal, you can also view the exact date of your last factory calibration and the upcoming 5-year due date.

NOTE
IGC File Integrity: User calibration adjustments are strictly applied to the live data sent to your displays and instruments. User calibration is **not** used or applied inside the secure IGC flight log file, ensuring the absolute integrity of your sporting data.

Related Products

The Navia Sense is designed to integrate seamlessly with other LX navigation products to expand its capabilities and provide a comprehensive avionics suite. The table below outlines the primary compatible devices:

Product Name	Part Number	Connection	Description
Navia Core Pro	LX02000490	RS232 (Port 1) & 5V	Central avionics server providing data integration, display routing, and power management.
Navia MOP Jet	LX02000570	RS232 (Port 2)	Means of Propulsion expansion for advanced engine noise monitoring for jet engines.
Navia MOP Electro	LX02000571	RS232 (Port 2)	Means of Propulsion expansion for electric propulsion monitoring.

Inventory of Materials

Before beginning installation, please verify your materials against the lists below. Doing so ensures you have received all ordered parts from LX navigation in good condition. We advise keeping the original packaging for future storage or transport. *Keep in mind that the LX navigation office operates Monday through Friday; any communications regarding returns or shipping claims sent over the weekend will be handled promptly on the next business day.*

6.1 In the Box

- 1x Navia Sense Unit
- 1x Device Registration Card (with QR code and portal link)
- 4x M2 Mounting screws

6.2 Additional Required Equipment (Not Included)

To fully install and utilize the Navia Sense, the following components must be purchased separately depending on your specific aircraft setup.

- 1x GNSS Antenna (Part Number: LX03000060)
- 1x Navia Sense OAT sensor wired (PT1000) with crimped pins (Part Number: LX02001860)
- Navia MOP connector sets (if installing Navia MOP Jet or Navia MOP Electro)
- Pneumatic T-junctions (if sharing existing aircraft static/pitot lines)

Note: For the physical installation, you will also need the mating connectors, appropriate pins, pneumatic hoses, and aviation-grade wiring. A complete and detailed list of all required connector part numbers, pin types, and recommended wire gauges can be found in the "Required Tools and Materials" section.

Required Tools and Materials

To simplify ordering and assembly, LX navigation has created a comprehensive list of part numbers. You can purchase individual components like back shells, pins, and housings, or you can order complete **Connector Sets** that include everything needed for a specific device.

7.1 Materials (Individual Components)

The list below details the individual components required for the installation, including the LX navigation part number alongside the manufacturer's original description.

- 1x **LX04000250** – Receptacle for Female Contacts Housing D-Sub Connector 15 Position (164X11779X)

- 1x **LX04000260** – 15 Position Two Piece Backshell Connector 90°, 180° Shielded (16-001820)
- 1x **LX04000300** – Receptacle for Female Contacts Housing D-Sub Connector 9 Position (164X11769X)
- 1x **LX04000290** – 9 Position Two Piece Backshell Connector 90°, 180° Shielded (16-001810)
- 1x **LX04000330** – Receptacle for Female Contacts Housing D-Sub, Combo Connector 2 (Coax or Power) Position (172704-0042)
- 15x **LX04000240** – D-Sub Contact Female Socket Gold 20-24 AWG Crimp Machined (M39029/63-368)
- 2x **LX04000340** – D-Sub Contact Male Pin Gold 20 AWG Solder Cup Machined (172704-0134)
- 3x Pneumatic connector (KQ2S06-M5N)
- Signal/power wire AWG 22 (M22759/16-22-9)
- Polyurethane pneumatic hose PU 6/4 mm

7.2 Available Connector Sets (Kits)

For your convenience, complete connector sets are available. Each set contains the exact quantities of housings, backshells, and pins required for the respective hardware interface.

Navia Sense J300 connector set (LX02000950)

LX Part Number	Qty	Description
LX04000250	1	Receptacle for Female Contacts Housing D-Sub Connector 15 Position (164X11779X)
LX04000260	1	15 Position Two Piece Backshell Connector 90°, 180° Shielded (16-001820)
LX04000240	15	D-Sub Contact Female Socket Gold 20-24 AWG Crimp Machined (M39029/63-368)

Navia Sense OAT sensor wired (PT1000) with crimped pins (LX02001860)

LX Part Number	Qty	Description
LX04000350	1	PT1000 OAT probe 1.5m (T02-PT1000B-1D-T105-1500)
LX04000240	3	D-Sub Contact Female Socket Gold 20-24 AWG Crimp Machined (M39029/63-368)

Navia MOP J600 connector set (LX02001840)
Note: This connector set is required for both the Navia MOP Jet and Navia MOP Electro versions.

LX Part Number	Qty	Description
LX04000300	1	Receptacle for Female Contacts Housing D-Sub Connector 9 Position (164X11769X)
LX04000290	1	9 Position Two Piece Backshell Connector 90°, 180° Shielded (16-001810)
LX04000240	9	D-Sub Contact Female Socket Gold 20-24 AWG Crimp Machined (M39029/63-368)

Navia MOP J601 connector set (LX02001850)

Note: This connector set is required strictly for the Navia MOP Electro version.

LX Part Number	Qty	Description
LX04000330	1	Receptacle for Female Contacts Housing D-Sub, Combo Connector 2 (Coax or Power) Position (172704-0042)
LX04000290	1	9 Position Two Piece Backshell Connector 90°, 180° Shielded (16-001810)
LX04000340	2	D-Sub Contact Male Pin Gold 20 AWG Solder Cup Machined (172704-0134)

GNSS Antenna (LX03000080)

LX Part Number	Qty	Description
LX03000080	1	GNSS antenna (2J4301MPGFx-150RG174-C20NST)

WARNING

GNSS Antenna Installation: A clear, unobstructed view of the sky is critical for proper GNSS reception and continuous 25 Hz tracking. The antenna must be installed on the outside of the fuselage with minimal obstruction from the airframe structure. Ensure the antenna is securely mounted and properly grounded. Improper antenna placement will result in loss of GPS lock, invalid IGC signatures, and degraded performance of all GNSS-dependent features.

7.3 Tools

- PZ1 Screwdriver
- PH1 Screwdriver
- Pin crimping tool
- Pin insertion/extraction tool
- **Non-magnetic tools** (e.g., beryllium, copper, or titanium)

WARNING

Magnetic Precautions:

Use of non-magnetic tools (e.g., beryllium, copper, or titanium) is recommended when installing or servicing the Navia Sense. **Do not** use a screwdriver that contains a magnet when installing or servicing the device. Navia Sense units equipped with AHRS contain a highly sensitive integrated magnetometer. Exposure to magnetic tools can permanently alter the unit's internal magnetic signature.

Mounting

The dimensions of Navia Sense are shown in the figure 1.

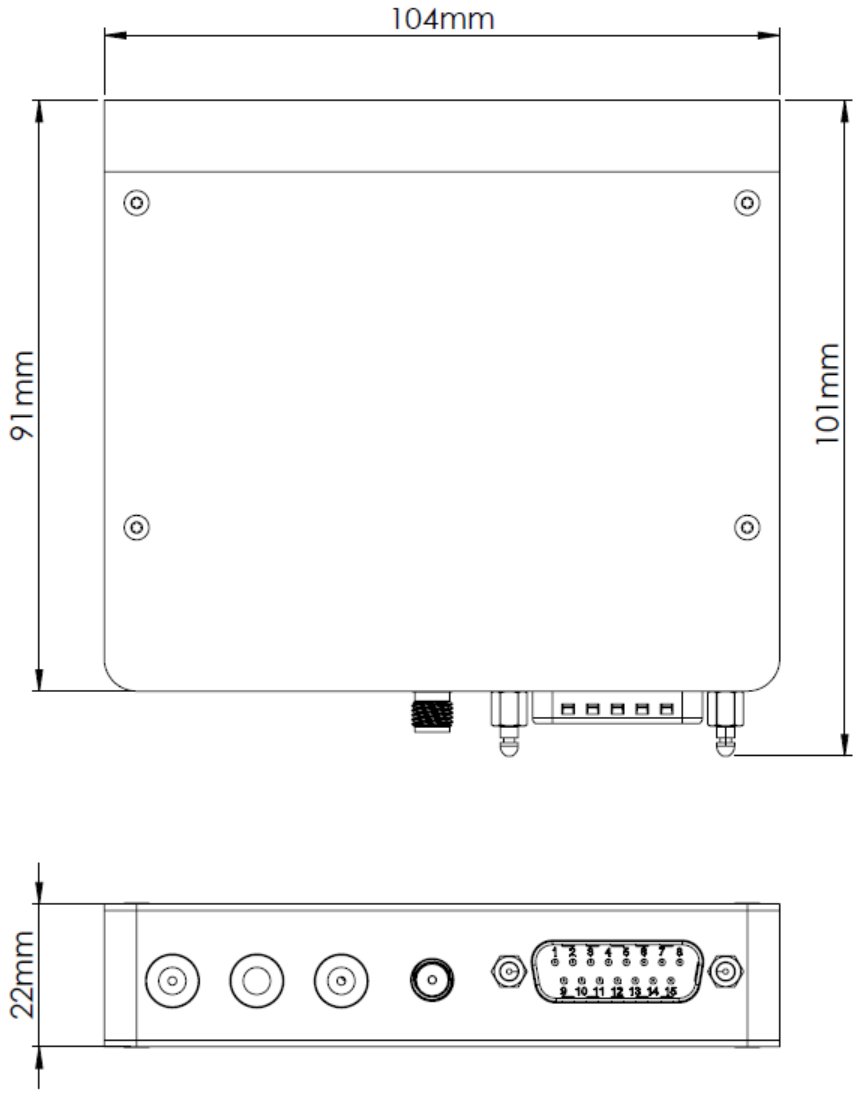

Figure 1. Device overview

Navia Sense is designed with two M2 threaded holes on each side. The use of M2 DIN 7985 screws is recommended.

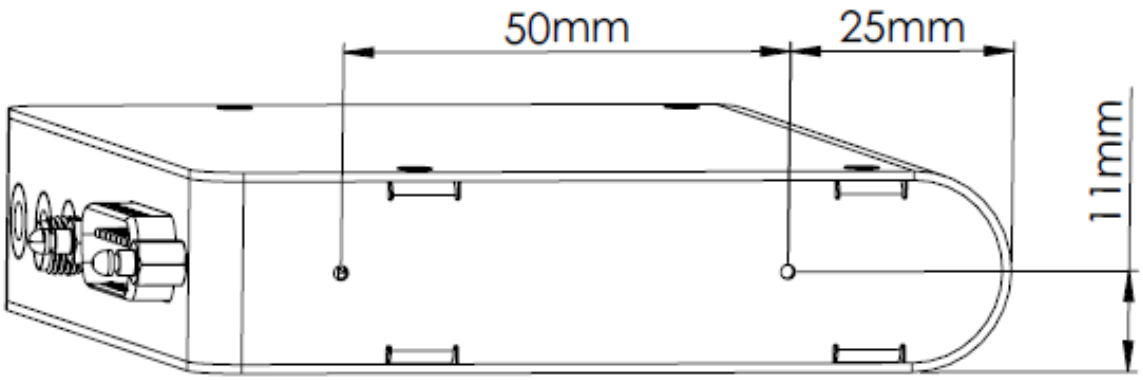

Figure 2. Mounting points

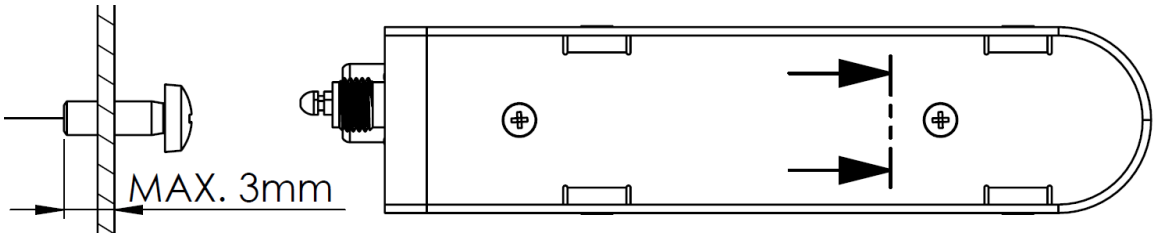

Figure 3. Length of screws

WARNING

Always use appropriate length of screws; using too long screws can damage internal components of Navia Sense.

Navia Sense is designed to be mounted in the avionics compartment or behind the instrument panel of the aircraft. Depending on the aircraft's individual requirements other locations may be suitable as well.

Navia Sense does not require additional external cooling. Make sure that installation is performed behind the engine firewall.

AHRS-Equipped Units and Magnetometers
Navia Sense units (with the exception of the base Sense Gliding version) feature an integrated magnetometer to provide the Navia Core Pro with magnetic field information. When multiple Navia Sense units are installed, magnetometer data is shared and cross-referenced for redundancy. Because of the internal magnetometer, the mounting location should be as far as possible from ferrous metals, high-current electrical cables, electric motors, and moving magnetic parts.

WARNING
AHRS Mounting Orientation:
For Navia Sense units equipped with an AHRS module, the physical mounting orientation is highly critical. The device **must** be installed with the pneumatic and electrical connectors pointing forward (in the direction of flight) and the top of the unit facing upwards. This required orientation is clearly indicated on the device enclosure by an airplane silhouette and the text **"THIS SIDE UP"**. Installing the device in the wrong orientation will result in completely incorrect AHRS (pitch and roll) readings.

Two mounting options are possible:

- mounting in a Navia mounting rack,
- on a flat surface using two mounting brackets.

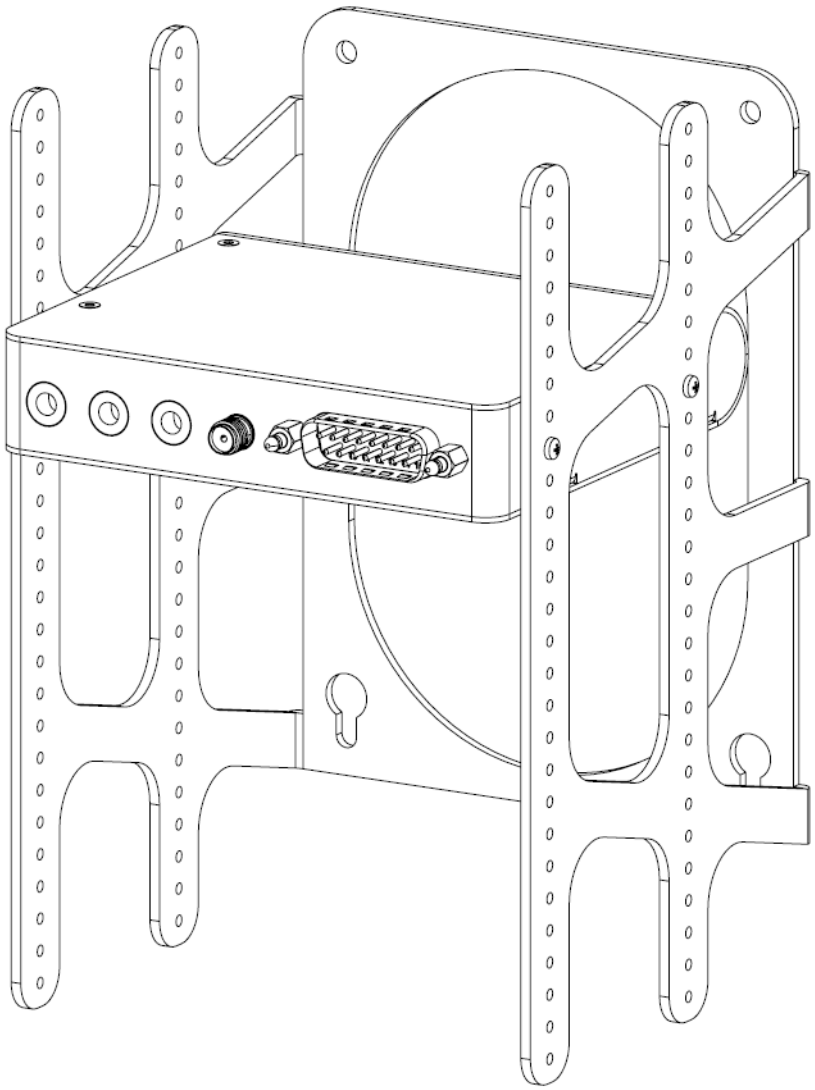

Figure 4. Mounting in Navia mounting rack

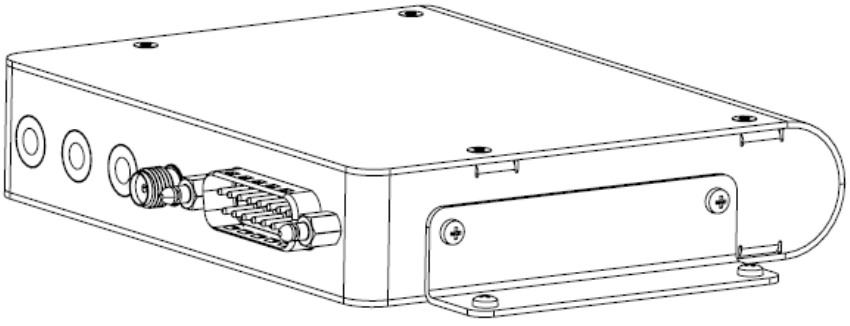

Figure 5. Mounting with two mounting brackets

Pneumatic and Antenna Connections

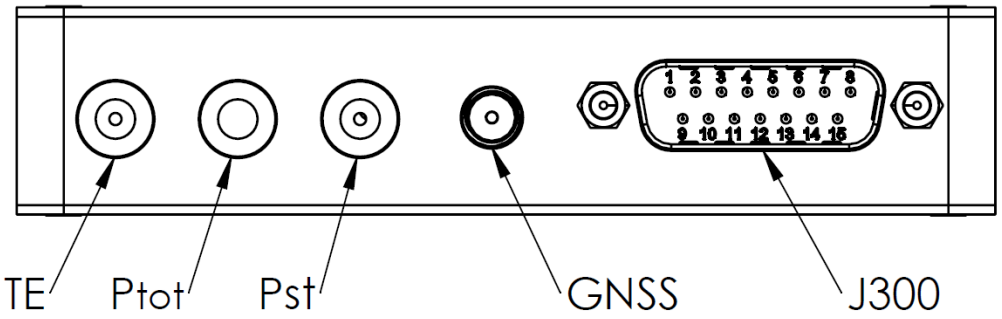

Figure 6. Front side connections - Gliding version

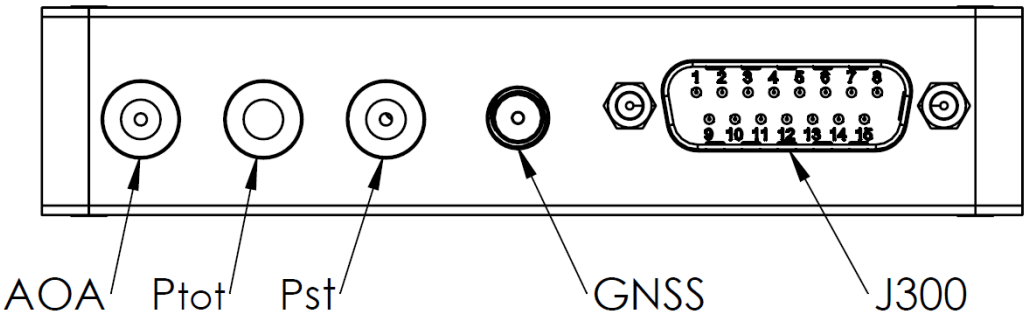

Figure 7. Front side connections - Airplane version

9.1 Pneumatic Hoses and Connectors

The Navia Sense features female threaded ports for each pneumatic connection. Air hoses and fittings are required to connect pitot and static air to the unit. Use the recommended 3x M5 pneumatic push-in connectors (KQ2S06-M5N) for 6mm polyurethane pneumatic hoses to properly connect to the pitot, static, TE, and Angle of Attack (AOA) system lines.

9.2 Static pressure (Pst)

The Navia Sense must be connected to the aircraft's pitot/static system. The airframe manufacturer's guidance should be followed to find the proper location of the pitot tube and static port. Locate the existing PST tube. If no free ports are available, use a T-junction to split the tubes. Connect the PST tube to the PST port on the main unit.

9.3 Total pressure (Ptot)

Connect the unit to the total pressure source. Total pressure is obtained from the total port on the pitot tube. The Navia Sense may be used with standard pitot tubes or combination pitot/AOA probes. Locate the existing PTOT tube. If no free ports are available, use a T-junction to split the tubes. Connect the PTOT tube to the PTOT port on the main unit.

9.4 Total energy compensation (TE) (Glider version only)

In case there is a total energy probe installed in your glider, connect the unit to the TE source. Locate existing TE tube. If no free ports are available use T junction to split the tubes. Connect TE tube to TE/PS port on the main unit.

9.5 Angle of Attack (AOA) (Airplane Pro and Pro HS versions only)

NOTE

The basic **Sense Airplane** version does not include an internal Angle of Attack sensor. The AOA functionality described below applies strictly to the **Sense Airplane Pro** and **Sense Airplane Pro HS** models.

The Navia system is capable of sensing and displaying the aircraft's current Angle of Attack (AOA) when the Navia Sense is connected to a compatible pitot/AOA probe. The connected Navia Displays present on-screen AOA information and generate AOA audio alerts. The angle of attack sensor can be calibrated to compensate for flap position, which requires either a flap position sensor or a dedicated discrete input wired to the Navia Core Pro.

Connect the AOA pneumatic lines to the correspondingly marked ports on the device according to your specific pitot-AOA probe instructions.

NOTE

Make sure the PST, PTOT and TE / AOA tubings are airtight. It is highly recommended to keep the tubings as short as possible. The tubings must avoid sharp bends and twists. Water must not be allowed to enter the tubing.

9.6 System Leak Considerations

The AOA pitot system leak test is not a regulatory requirement. If the system experiences inconsistent performance or an inability to calibrate the AOA System, leak testing may be performed to provide assurance that any leakage is within an acceptable range.
If a pitot/static tester is used to perform this test, the recommended airspeed input applied to the probe pressure ports is 150 knots. The leak rate should be less than 5 knots/min with the probe removed from the aircraft. If the leak rate is less than 5 knots/min with the probe removed, attach the probe and perform the test with the pitot-AOA probe in line (make sure drain holes are fully sealed).
The guidance for pitot system tests listed in AC 43.13-1B, Section 4 are not directly applicable to this AOA pitot system. However, using it as a reference, it specifies the system shall be

tested per the manufacturer's instructions but further states that if the manufacturer does not provide instructions, the default test is to apply 150 knots pressure to the system and measure the pressure loss over one minute. This loss is not to exceed 10 knots/min. While some probes will pass a test of this type, some may not. LX navigation has determined that a leak rate of 250 knots/min or less is allowable and still provides proper functionality.

9.7 GNSS antenna

Connect the GNSS receiver antenna with an SMA connector to the SMA connector on the back of the main unit marked with GNSS underneath.

WARNING

Connector Torque (Hand-Tighten Only): Do not use tools to tighten the SMA connector. It should simply be tightened firmly by hand. If tools are used, there is a high chance of over-tightening the connection. When attempting to remove an over-tightened connector later, the excessive torque can cause the internal SMA receptacle to loosen and spin within the chassis. This will twist and permanently break the delicate internal coaxial cable.

Install the antenna horizontally with the "GNSS" sign pointing to the sky. We recommend using a high gain active antenna with excellent reception. Despite this, be careful with the placement. Do not install the antenna under metal or carbon fiber instrument panels or covers. The antenna should have clear "sight" to the satellites. It may be covered with non-conductive materials (e.g., fiberglass, glass, wood, cloth, etc.).

Wiring and Harness Installation Practices

10.1 Electrical Considerations & ESD

WARNING

CAUTION: Electro-Static Discharge (ESD)

To avoid damage to the Navia Sense, take precautions to prevent Electro-Static Discharge (ESD) when handling connectors and associated wiring. ESD damage can be prevented by touching an object that is of the same electrical potential as the device before handling the device itself.

10.2 Wiring Harness Routing

- Check there is ample space for the cabling and mating connectors.
- Avoid sharp bends in cabling.
- **Moisture Prevention:** Form a "drip loop" (a slight downward U-shape) in the harness just before the wire bundle enters the device connector. This prevents condensation from running down the wires directly into the pins.
- Avoid routing cables near heat sources, RF sources, or EMI interference.

- Route the GNSS antenna cable as far as possible away from all COM transceivers and antenna cables.

10.3 Wire Preparation and Crimping

For the physical installation, use avionics-grade wiring. Strip the wire appropriately, insert into the pin, and crimp using a certified aviation pin crimping tool. After crimping, inspect the pin to ensure the wire is securely held and perform a gentle pull-test. Once verified, push the pin into the corresponding cavity in the connector housing until it clicks.

WARNING
Wire Splicing Warning:
In scenarios where splicing is absolutely unavoidable, it must be done correctly using avionics-grade environmental splices (such as proper crimp butt-splices covered with dual-wall adhesive heat shrink or dedicated solder sleeves). Never use standard electrical tape, bare twists, or twist-on wire connectors inside an aircraft.

Electrical Connections (J300 Pinout)

The Navia Sense interfaces via a 15-pin D-Sub connector (J300). **It operates strictly on 5V logic power.**

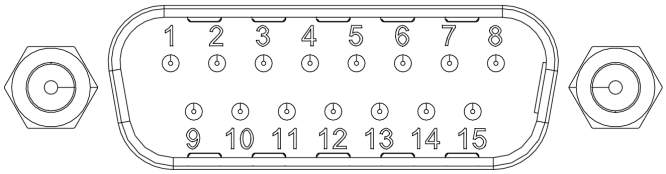

Figure 8. J300, as viewed looking at connector on unit

Pin	Signal Name	Function
1	RS232_RX1	Primary RS232 Receive (Data In)
2	5V	+5V Power Supply Input
3	RS232_RX2	Secondary RS232 Receive (MOP Expansion)
4	5V	+5V Power Supply Input (Redundant)
5	RTD_IOUT	RTD Temperature Sensor Output
6	RTD_IN-	RTD Temperature Sensor Input (-)
7	GND	Shield / Mechanical Ground
8	GND	Shield / Mechanical Ground
9	RS232_TX1	Primary RS232 Transmit (Data Out)
10	GND	Power/Signal Ground
11	RS232_TX2	Secondary RS232 Transmit (MOP Expansion)
12	GND	Power/Signal Ground (Redundant)
13	RTD_IN+	RTD Temperature Sensor Input (+)
14	GND	Shield / Mechanical Ground
15	GND	Shield / Mechanical Ground

11.1 Outside Air Temperature (OAT)

An Outside Air Temperature (OAT) probe (such as a PT1000 RTD sensor) is required to calculate True Airspeed (TAS) and Density Altitude. A minimum of one OAT probe is required for the system. In an installation with multiple Navia Sense units, air temperature data is shared with the Navia Core Pro.

3-Wire vs. 2-Wire Probes

The Navia Sense is designed to natively support a **3-wire OAT probe** (such as the LX03000100). Using a 3-wire configuration actively compensates for any electrical resistance introduced by the cable length, ensuring the highest possible temperature accuracy. Connect

the 3 wires from the probe directly to the RTD_IN+ (Pin 13), RTD_IN− (Pin 6), and RTD_IOUT (Pin 5) pins on the Navia Sense J300 connector.

Alternatively, a standard **2-wire probe** can also be used, as the cable resistance error in typical light aircraft installations is generally negligible. When using a 2-wire probe, you must connect the two probe wires to RTD_IN+ (Pin 13) and RTD_IN− (Pin 6). Then, to complete the circuit properly, you must physically **bridge (short)** the RTD_IN− (Pin 6) and RTD_IOUT (Pin 5) pins together at the connector housing.

11.2 Wiring Recommendations

While generic wiring can be used, it is strongly recommended to use a shielded cable with twisted pairs for long runs. This improves noise immunity and reduces potential for communication errors. One twisted pair should be used for each TX/RX pair, and another pair for 5V and GND.

Refer to the J300 pinout for detailed connection assignments.

WARNING
Double-check pinout connections before applying power. Incorrect wiring can permanently damage the device or connected equipment.

Integration with Navia Core Pro

To connect the primary Navia Sense to the Navia Core Pro, you must utilize the 5V power output and RS232 Port 1 on the Core Pro's **J100** connector.

Navia Core Pro (J100 44-pin)	Navia Sense (J300 15-pin)
+5V (Pin 3)	5V (Pin 2)
GND (Pin 16)	GND (Pin 10)
RS232_RX1 (Pin 1)	RS232_TX1 (Pin 9)
RS232_TX1 (Pin 2)	RS232_RX1 (Pin 1)

WARNING
MOP Expansion Pins:
The Navia Sense's secondary RS232 port (**RS232_RX2 on Pin 3** and **RS232_TX2 on Pin 11**) is strictly reserved for expanding the Navia Sense with MOP (Means of Propulsion) capabilities. **Do not** connect these pins to the Navia Core Pro for standard data communication.

WARNING
Voltage Limitation:
The Navia Sense is a 5V device. **Do not** connect it directly to the main 12V/24V aircraft bus or a VP-X circuit. Doing so will result in immediate and permanent destruction of the device. Always use the regulated +5V outputs from the Navia Core Pro.

NOTE
After finishing the installation, check that the device is fully operational before closing the instrument panel cover.

NOTE
If you run into any issues, contact us at info@lxnavigation.com for assistance.

Navia MOP Installation (Jet and Electro)

Figure 9. MOP extention for Jet or electric propoltion

Because the Navia MOP (Means of Propulsion) relies entirely on the Navia Sense to process, record, and forward its data, it does not operate as a standalone unit and does not have a separate installation manual. All installation and operational guidelines for the MOP are covered in this section.
The Navia MOP connects exclusively to the Navia Sense's secondary RS232 port: **RS232_RX2 (Pin 3)** and **RS232_TX2 (Pin 11)** on the J300 connector.

13.1 Navia MOP Jet

The Jet version of the MOP is a specialized acoustic sensor designed specifically to detect the high-frequency noise profile produced by jet engines.

- **Placement:** The sensor must be installed near the jet engine, ideally positioned above the wing spar.
- **Testing:** Due to the highly directional nature of high-frequency sound, you must run several test flights to ensure the MOP is capturing proper engine noise readings in your recorded IGC file.
- **IGC File Values:** Under normal conditions, when there is no engine operation but a stable connection to the host system is present, the baseline MOP value in the IGC file will record as **010**.
- **Disconnection Warning:** If you disconnect the MOP sensor while flying, this constitutes a clear violation of the IGC file's integrity. All recorded MOP values will immediately drop to **000** for the remainder of the flight.

13.2 Navia MOP Electro

The Electric version of the MOP relies on electrical current and voltage measurements rather than acoustics to detect engine operation. It serves a dual purpose: providing IGC engine data and delivering vital electrical telemetry to the pilot.

- **Connections:** Connect the standard data port of the MOP to the Navia Sense. On the other side of the MOP, utilize the high-voltage connections to measure the total voltage of the aircraft's propulsion battery system.
- **Current Clamp:** The MOP Electro includes a current clamp. Place this clamp securely over the main high-current wire going to the propulsion battery. This allows the system to read the exact current flowing to and from the battery.
- **Telemetry & Energy Tracking:** The Navia Sense continuously forwards this electrical data to the Navia Core Pro. Pilots can view real-time current flow and track exactly how much power (in kWh) was consumed during the flight. This feature is particularly useful for electric glider competitions that enforce daily energy caps (e.g., a maximum allowance of 2 kWh per day).
- **IGC File Values:** Normal baseline values (engine off, stable connection) are recorded as **010**. Engine operation is automatically registered in the IGC file when the current measurements cause the MOP values to rise above **650** for an extended period (visible as consecutive records showing high values).
- **Disconnection Warning:** Similar to the Jet version, if the connection between the MOP Electro and the Navia Sense is breached during flight, the IGC values will drop to **000**, invalidating the engine record.

13.3 Navia MOP Connections

The Navia MOP (Means of Propulsion) module interfaces with the Navia Sense and external engine sensors via two D-Sub 9 connectors. The primary connector, designated as **J600**, handles 5V power, RS232 serial communication with the Navia Sense, and the 4-wire interface for the current clamp sensor. The secondary connector, **J601**, utilizes a 9-pin housing but is dedicated strictly to high-voltage measurements across two pins.

MOP J600 Pinout (Primary Data & Sensor Interface)

Pin	Signal Name	Description
1	RS232_RX	Data receive (from Navia Sense TX2)
2	5V	+5V Power supply input (from Navia Sense)
3	VCC	Sensor Power (to Current Clamp)
4	I_SENSE	Current Sense Input (from Current Clamp)
5	NC	Not Connected
6	RS232_TX	Data transmit (to Navia Sense RX2)
7	GND	System Ground (to Navia Sense)
8	GND	Sensor Ground (to Current Clamp)
9	I_REF	Current Reference (from Current Clamp)

MOP J601 Pinout (High Voltage Interface)

Pin	Signal Name	Description
1	AGND	Analog Ground (High Voltage Battery -)
2	HI-VOL	High Voltage Input (High Voltage Battery +)

WARNING

Connector Verification:

Ensure that the high-voltage lines are strictly connected to the J601 port. Accidentally connecting high-voltage battery lines to the J600 data port will result in catastrophic failure of the MOP module and connected Navia avionics.

Initial System Configuration & Calibration

14.1 AHRS Leveling (CAGE Command)

Once the Navia Sense is physically mounted, you must electronically level the internal AHRS.

1. Bring the aircraft to a normal, straight-and-level flight attitude on the ground.
2. Trigger the **CAGE** command to establish the baseline level.
3. *Standalone Mode:* Access the CAGE command via the Wi-Fi portal.
4. *Integrated Mode:* Navigate to **Airplane Settings > Navia Sense** on your Navia Display and select CAGE.

14.2 Magnetometer (Compass) Calibration

Unlike traditional systems, the Navia Sense does **not** require a complex, manual ground calibration on a compass rose. The compass continuously calibrates itself while flying by using a sophisticated algorithm combined with internal gyros.

1. While in flight, perform a few "figure 8" patterns to allow the algorithm to gather magnetic data in all directions.
2. Once you are satisfied that the heading readout is accurate, navigate to the same configuration menu (Wi-Fi portal or **Airplane Settings > Navia Sense**).
3. Execute the **Save compass** command.

This will securely save the calculated magnetic offsets. On your next flight, the compass will show the correct heading immediately from boot-up, even while stationary on the ground.

Software Updates

The Navia Sense utilizes a secure A/B partition update system. If an update is interrupted or fails, the device will safely revert to the previous working version, ensuring it cannot be "bricked."

Standalone Mode Update:

1. Download the latest update file from **download.lxnavigation.com** to your smartphone, tablet, or laptop.
2. Connect to the Navia Sense Wi-Fi Access Point and open the portal (**192.168.4.1**).
3. Navigate to the dedicated **Software Update** menu, upload the file, and initiate the procedure.

Integrated Mode Update:
If the Navia Sense is connected to a Navia Core Pro, you do not need to update it manually. The Navia Core Pro will automatically manage and apply updates to the Navia Sense during its own network update cycles.

System Status and Indicators

The Navia Sense housing does **not** feature any external physical LED status lights. All system diagnostics and sensor statuses are viewed digitally:

- **Integrated Mode:** The status of a working Navia Sense and all of its submodules is clearly visible on the connected Navia Displays.
- **Standalone Mode:** Navigate to the dedicated **Status Page** on the Wi-Fi portal, which provides real-time data readouts from all internal sensors to verify operation. If the internal security battery is depleted, a **"Seal not valid"** warning will also be visible here.

Maintenance and Service

The Navia Sense is a solid-state device requiring no regular internal maintenance by the pilot or installer.

WARNING

DO NOT OPEN THE DEVICE: There are **no user-serviceable parts** inside the device. Any attempt to open the unit enclosure will physically trip the hardware tamper switches and permanently void the IGC security seal, instantly destroying the unit's ability to generate valid cryptographic G-records.

If your device requires a 5-year barocalibration, an internal security battery replacement, or hardware repairs (such as an AHRS module upgrade), the unit must be removed from the aircraft and sent directly to LX navigation or to a certified, authorized partner for service.

Post-Installation Checkout & Ground Testing

Before returning the aircraft to service, perform a basic ground checkout to ensure all sensors are communicating correctly:

1. **Power & Communication:** Power on the system and verify the Navia Sense appears on your Navia Display (or successfully broadcasts its Wi-Fi Access Point in standalone mode).
2. **GNSS Fix:** Move the aircraft out of the hangar so the GNSS antenna has a clear view of the sky. Verify the system acquires a valid 3D GPS fix.
3. **AHRS Check:** Verify that the artificial horizon on your display is level (if the CAGE command was performed) and that pitch and roll respond smoothly if the aircraft is rocked or moved.
4. **Air Data Check:** Verify that the airspeed reads zero knots when the pitot tube is uncovered and the aircraft is stationary.
5. **Pneumatic Leaks:** Ensure all pitot, static, TE, and AOA lines have been securely connected and tested for leaks per the guidelines in Section 9.6.

Weight and Balance Data

After installing the Navia Sense, it is a strict regulatory requirement that the aircraft's Weight and Balance records be updated to reflect the new equipment list.
To assist your mechanic or installer, LX navigation provides a dedicated **Equipment Datasheet** that contains the exact mass and center-of-gravity (CG) moment/arm data for all devices in the Navia system.
Once the new empty weight and CG have been physically calculated and logged in the aircraft's official records, the owner/admin must update the Navia software so it can accurately compute dynamic Weight and Balance for the pilot during pre-flight.

Technical specification

Description	Unit	Value
Dimensions	[mm]	22 x 104 x 101
Power supply	[V DC]	5V
Nominal Voltage	[V DC]	5V
Average Power Consumption	[W]	0.8
Mass	[g]	138
Ground Survival Temperature	[°C]	-55 - +85
Operating Temperature	[°C]	-20 - +55
Relative Humidity	[%]	0 - 98
Max. Operational Altitude	[ft]	49,000
Max. Airspeed:	[km/h]	460
Operational Shock		10 g
Crash Safety Shock		20 g
Vibration		DO-160D U F/F1

NOTE
This specification applies to all variants of Navia Sense

Environmental data

Description	Section	Category	Conditions
Temperature / Altitude	4.0	D1	
Low Ground Survival Temperature	4.5.1	D1	-55°C
Low Operating Temperature	4.5.1	D1	-40°C
High Ground Survival Temperature	4.5.2	D1	+85°C
High Short Time Operating Temperature	4.5.2	D1	+70°C
High Operating Temperature	4.5.3	D1	+55°C
In Flight Loss of Cooling	4.5.4	Z	No auxiliary cooling required
Altitude	4.6.1	D1	45,000 ft
Temperature Variation	5.0	B	
Humidity	6.0	A	
Shock	7.0	B	
Vibration	8.0	U/U2	Vibration curve F/F1 (robust vibration, helicopter)
Explosion Proofness	9.0	X	not tested
Water Proofness	10.0	X	not tested
Fluids Susceptibilities	11.0	X	not tested
Sand and Dust	12.0	X	not tested
Fungus Resistance	13.0	X	not tested
Salt Spray	14.0	X	not tested
Magnetic Effect	15.0	Z	less than 0.3m
Power Input (DC)	16.0	B	
Voltage Spike Conducted	17.0	B	
Audio Frequency Conducted Susceptibility	18.0	B	
Induced Signal Susceptibility	19.0	X	not tested
Radio Frequency Susceptibility	20.0	T	Radiated Susceptibility T
Conducted Susceptibility Emission of RF	21.0	M	Except intended operating frequencies (868/915 MHz 6 and 2.4/5 GHz)
Lightning Induced Transient Susceptibility	22.0	A2XXX	
Lightning Direct Effects	23.0	X	not tested
Icing	24.0	X	not tested
Electrostatic Discharge (ESD)	25.0	A	
Fire, Flammability	26.0	X	enclosure made of aluminum (Al) sheet

Environmental tests are performed in accordance with RTCA DO-160.

Declaration of Conformity

Identification of product
Product Name: Navia Sense Gliding Pro+ license, Navia Sense Gliding Pro, Navia Sense Gliding, Navia Sense Airplane, Navia Sense Airplane Pro, Navia Sense Airplane Pro HS, Navia Mop Jet, Navia Mop Electro
Part Number(s): LX09000100, LX02000510, LX02000720, LX02000780, LX02000730, LX02000740, LX02000570, LX02000571

Manufacturer
LX navigation d.o.o., Tkalska ulica 10, SI-3000 Celje, Slovenia

Related Directives
LX navigation d.o.o. declares under our sole responsibility that the product complies with the essential requirements of the following European Directives and therefore bears the **CE marking**:

- **2014/53/EU** Radio Equipment Directive (RED)
- **2015/863/EU** Restriction of Hazardous Substances (RoHS 3)

Harmonized Standards Applied
The following harmonized standards have been applied to demonstrate conformity:

- **Health & Safety (Article 3.1a):** EN 62368-1:2014+A11:2017 (Product Safety), EN 62311:2008 (RF Exposure)
- **Electromagnetic Compatibility / EMC (Article 3.1b):** EN 301 489-1 V2.2.3, EN 301 489-3 V2.1.1, EN 301 489-17 V3.2.4, EN 301 489-19 V2.1.1
- **Radio Spectrum Efficiency (Article 3.2):** EN 300 328 V2.2.2, EN 301 413 V1.1.1, EN 300 220-1 V3.1.1, EN 300 220-2 V3.1.1
- **Additional Compliance:** EN 63000:2018 (RoHS)

Aviation Environmental Testing
While this device does not hold a formal aviation certification (such as an ETSO/TSO), it has been rigorously tested to meet the demanding environmental conditions for airborne equipment outlined in **RTCA DO-160**.

Signed for and on behalf of LX navigation d.o.o.
Name / Title: Nik Šalej, CEO
Date: March 20, 2026
Location: Celje, Slovenia

Disclaimer and Legal Notice

Accuracy of Information

While every effort has been made to ensure that the information contained in this manual is accurate and complete, LX navigation d.o.o. assumes no responsibility or liability for any errors, omissions, or inaccuracies. The information in this document is provided "as is" and is subject to change without prior notice. LX navigation reserves the right to continually improve its products, software, and documentation without obligation to notify any person or organization of such revisions or changes.

Operational Responsibility

The Navia avionics system is designed to provide supplementary flight data and enhanced situational awareness. It is **not** a certified primary flight instrument and must not be used as the sole means of navigation, collision avoidance, or instrument flight (IMC/IFR). The pilot in command is solely responsible for the safe operation of the aircraft, adherence to all applicable aviation regulations, and the proactive separation from other aircraft, terrain, and obstacles.

Limited Warranty

Two-Year Hardware Warranty
LX navigation warrants this hardware product to be free from defects in materials and workmanship under normal aviation use for a period of **two (2) years** from the date of original retail purchase.
During this warranty period, if a defect arises, LX navigation will, at its sole discretion and to the extent permitted by law, either:

1. Repair the product at no charge using new or refurbished replacement parts.
2. Exchange the product with a new or refurbished product that is functionally equivalent to the original.

Warranty Exclusions
This Limited Warranty does not apply to any software (including the operating system and internal firmware), databases, or any third-party equipment. Furthermore, this warranty does not cover damage caused by:

- Misuse, abuse, accidents, or neglect (including physical impact or water damage).
- Unauthorized modifications, alterations, or repairs performed by anyone other than LX navigation or an officially certified service partner.
- Opening the device enclosure or breaking the factory security seals.
- Improper installation, wiring, or application of incorrect voltage.
- Environmental damage extending beyond the certified limits of the device, including concentrated solar heat damage ("sunburns") on LCD screens.

To obtain warranty service, the customer must contact LX navigation support. Shipping costs to the LX navigation repair facility are the responsibility of the customer.

End User License Agreement (EULA)

By purchasing, installing, or using any Navia device, or by downloading, accessing, or using any LX navigation software, firmware, license key, or data, you agree to the following terms and conditions. If you do not agree with these terms, do not install or use the device, software, or data.

25.1 License and Limitation of Use

1.1. License. Subject to the terms of this Agreement, LX navigation hereby grants you a non-exclusive, non-transferable right to use the software, firmware, license keys, and data embedded in binary executable form solely for your own personal or internal flight operations. You acknowledge that all software, algorithms, and related data are proprietary intellectual property of LX navigation and its suppliers.

1.2. Limitation. Software, firmware, and license keys may only be used as embedded in devices manufactured by LX navigation. No other licenses are granted by implication or otherwise. You may not reverse engineer, decompile, disassemble, or manipulate the software or hardware in any way.

25.2 Terms of Use in Aviation

2.1. Installation. The device must be installed according to the official LX navigation Installation Instructions and must comply with the applicable national aviation regulations (e.g., EASA Standard Change or Minor Change). Installation must be verified by certified maintenance staff where required by law.

2.2. Safety Limitations. The Navia system cannot warn or provide data in all situations. Sensors may be degraded by GPS outages, poor antenna placement, or environmental factors. The system does not issue resolution advisories. It is the sole responsibility of the pilot in command to decide upon the use of the system and to maintain safe flight conduct.

2.3. Mandatory Updates. System firmware and applicable databases (e.g., Obstacles, Airspace) must be updated regularly. LX navigation reserves the right to render outdated firmware versions inoperable to ensure network compatibility and system safety.

25.3 Data Privacy and Telemetry

3.1. Data Collection. Navia devices may collect, store, and transmit flight data, including aircraft identification, GPS position, altitude, and system diagnostics. LX navigation may use this data for system improvement, troubleshooting, and Search and Rescue (SAR) purposes.

3.2. Data Sharing. LX navigation is not responsible for any third-party device, software, application, or network that receives, intercepts, stores, or broadcasts data transmitted by your Navia device.

25.4 Limitation of Liability

4.1. "As Is" Provision. While the hardware is covered by a 2-year warranty, all software, firmware, databases, and digital services are provided on an "as is" and "as available" basis without any implied warranties of merchantability or fitness for a particular purpose.

4.2. Total Liability Cap. In no event shall LX navigation, its directors, employees, or suppliers be liable to you or any third party for any direct, indirect, incidental, consequential, special, or punitive damages. This includes, without limitation, damages for loss of life, personal injury, loss of the aircraft, loss of business profits, or loss of data, whether under a theory of contract, warranty, or tort (including negligence).

4.3. Maximum Compensation. In no event will LX navigation's total aggregate liability to you for any and all claims arising out of the use of the system exceed the amount actually paid by you for the specific device giving rise to the claim.

25.5 Indemnification

You agree to indemnify and hold LX navigation harmless from and against any and all claims, actions, liabilities, losses, damages, costs, and expenses (including reasonable attorneys' fees) arising out of your improper installation, misuse of the device, or violation of any aviation regulations.

25.6 Governing Law and General Terms

6.1. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the Republic of Slovenia, without regard to its conflict of law principles.

6.2. Severability. If any provision of this Agreement is found to be void or unenforceable, that provision shall be severed, and the remaining provisions will continue in full force and effect.

6.3. Amendments. LX navigation reserves the right to amend this Agreement at its sole discretion by publishing updated documentation. Continued use of the device and software constitutes acceptance of the amended terms.

Contact

Headquarters
LX navigation d.o.o.
Tkalska ulica 10
SI-3000 Celje
Slovenia

VAT ID
Company is registered in Slovenia, EU under the VAT ID: SI40539601

US Office
LX navigation US
1704 Kennedy Point 1124
Oviedo, FL 32765
USA

Webpage
www.lxnavigation.com

Phone
+386 (0)3 490 46 70

Fax
+386 (0)3 490 46 71

Sales
sales@lxnavigation.com

Support
info@lxnavigation.com

LXNAVIGATION