WHICH PRODUCTS DO I NEED?

Veripos offers a comprehensive range of receivers to meet customer requirements.

All are designed and approved for marine use.

Each receiver has variants to match reception of a variety of GNSS correction services that are selected to meet the particular requirements for the work of the vessel.

Receiver variants are identified in different ways across the range. These are summarized in this document.

A receiver typically houses two modules:

1. **L-Band corrections receiver**.

   This receives and decodes the Veripos correction services. Module is a card housed in the receiver.

   Correction services are provided to meet applications and grouped to meet their needs. A separate description of Veripos services is available **here.**

   Signal reception is commonly delivered on-board using dedicated **L-Band spot beam antenna(s)**. For system redundancy other delivery methods, e.g. a **suitable L-Band dome receiver** (often already installed) can, in addition, be incorporated.

2. **GNSS receiver**.

   All receivers used by Veripos are capable of very high accuracy, survey grade use.

   Depending on the type of configuration selected it can receive and use multi frequency, multi constellation observations.

For example, a **GG2** receiver variant can receive both dual frequency GPS and GLONASS positioning signals.
When used with the highest precision Veripos services it will allow access to and can output the most accurate Veripos positioning information.

Veripos Receiver Naming

For convenience sometimes a shorthand naming convention is used, explained below.

Veripos product naming example:

LiD6GG2
This is an:

L = L-band demodulator (always)

    i = IALA or MF Beacon capable (varies)

        D = Demodulator (always)

           6 = model number is 6 (varies)

              G = GPS capability (where fitted, always)

                 G = GLONASS capability (option, always with GPS)

                    2 = dual frequency (1 = single frequency)

Receiver options:

- Option to receive **IALA** MF radio corrections – these are free to air DGPS corrections (where available and in range).

- Optional reception of **SBAS** (or similar) public DGPS corrections where available and valid for the work area.

- Optional use with DP display / Quality Control software

- Some models e.g. **LD7**, calculate a heading using a baseline between two antennas.

A copy of the manual and guides can be downloaded from **VOSS**.

Interface options and key features:

- All Veripos receivers can be used with Veripos QC software that is installed on a separate PC
- All Veripos receivers can output standard NMEA messages
- All Veripos receivers in current range provide 1PPS output
- All Veripos receivers can be interfaced to a UHF receiver providing corrections
- All Veripos receivers are certified to **IEC60945-2002**

Which Receiver do I have? – Which one suits my needs?

We understand selecting / identifying which variant of receiver to use (- even the one you are using!) can be confusing.

Veripos engineers can help you identify which receiver suits the job.

For assistance or advice please don't hesitate to [contact](#) us.

Summary Table of Veripos Integrated Mobile Receivers

Receiver	LD5	LD6	LD7
Typical application:	DP OSV, Survey	Seismic, Survey, DP drilling	Survey
Demodulator variant?	✔	✔	-
GPS only Variant?	✔	✔	✔
GPS and **GLONASS** Variant?	✔	✔	✔
MF Beacon (IALA) variant?	✔	✔	-
User interface on receiver?	✔	✔	-

LD5 - Identifying Variants

All LD5 variants supplied incorporate an **L-Band module** to receive Veripos corrections. (A1 variant is a demodulator only)

LD5 variants used affect the GNSS card capability.

LD5 options are:

- Single or dual frequency reception (GNSS card permission)

- GPS satellite constellation reception only (GNSS card permission)

- GPS plus GLONASS satellite constellation reception (GNSS card permission)

- Use with IALA/MF (A3 variant only)

Most LD5's can be supplied with the capability to receive GPS and GLONASS dual frequency GNSS signals and use third party corrections.

LD5 Variant table

Identifying the variant is a combination of the 5 digit User code on the front casing and the upper casing label.

LD5	
A1	– **L-Band** module only
A2	– L**-Band and GNSS card** (can be supplied to meet various user GNSS requirements)
A3	– **L-Band, GNSS card and MF** / Beacon capability (can be supplied to meet various user GNSS requirements)

Key – LD5 Upper casing label

Veripos holds records of each LD5 ***User Code*** on the front panel. Our engineers can help you understand the receivers' capability.

A copy of the manual and guides can be downloaded from **VOSS**.

The example above shows the label from an **LD5 A2**

Typically the LD5 has an L-Band receiver module for Veripos corrections broadcast from the geostationary satellites plus GNSS receiver module, capable of receiving GNSS positioning data.

It can calculate on- board a high accuracy position using Veripos corrections, then output this to ships' systems.

Data including a 1 PPS signal or RTCM can also be provided.

The LD5 may be used with Quality control software such as **Orion DP** (using a touchscreen PC) or **Verify QC** (PC with monitor, keyboard, dongle & mouse).

LD6 - Identifying Variants

All LD6 variants supplied incorporate an **L-Band module** to receive Veripos corrections.

Veripos holds records of each LD6.

From the User Code on the front panel our engineers can advise the receivers' capability when it was first issued.

Variants relate to the GNSS card capability and receiver modules fitted.

Options available are:

- Single or dual frequency reception (GNSS card permission)

- GPS satellite constellation reception only (GNSS card permission)

- GPS plus GLONASS satellite constellation reception (GNSS card permission)

- Option for MF Beacon (IALA) radio corrections (module added)

- Option for UHF radio correction reception (module added)

- Option to use with **Orion DP** software (uses separate touch screen monitor)

- Option to use with **Verify QC** software (uses separate PC, monitor, keyboard & mouse)

The LD6 always includes an L-Band receiver module for Veripos corrections from the geostationary satellite broadcasts and GNSS receiver module, capable of receiving dual frequency GPS and GLONASS satellite constellation positioning data.

The LD6 can calculate on- board a high accuracy position using Veripos corrections and output on serial or IP ports to ships' systems.

Other data strings including RTCM position data and 1 PPS signal can be output.

Before commissioning the user selects the type of card permissions, e.g. dual frequency, GLONASS or GPS alone.
All LD6 units are capable of receiving GPS and GLONASS, dual frequency GNSS signals.

A copy of the manual and guides can be downloaded from **VOSS**.

[LD7](#) - Identifying Variants

The LD7 is designed for Survey use.
When installed using two GNSS antennas that are surveyed in place, the LD7 can calculate a line of bearing between two antennas for use when calibrated to output a high accuracy heading.

All LD7 variants incorporate an **L-Band module** to receive Veripos corrections.

Veripos holds records of each LD7 provided. From the User Code our engineers can advise the receivers' capability when it was first issued.

The LD7 variants also covers the GNSS card capability.

Options available are:

- Single or dual frequency reception
-
- GPS satellite constellation reception or

- GPS plus GLONASS satellite constellation reception

Other variant capabilities include:

➤ High accuracy position calculation output from most Veripos services

➤ 1 PPS output

➤ RTCM correction output

➤ Use with ***Verify QC*** (software runs on a dedicated PC)

➤ Optional UHF corrections reception (variant has UHF module)

➤ Bluetooth Configuration & Browser configuration / access (availability TBA)