

## VBOX Differential Base Station

The **Racelogic Differential Base Station** is a complete differential correction system designed to provide local correction for improved GNSS accuracy down to 2cm.

### How does it work?

By programming the Base Station with a known GPS position, it is able to accurately monitor the difference between its programmed position and the position that it is receiving via GPS. This difference is transmitted via radio to allow a remote GPS system to correct its position.

### Features

- Up to 2cm accuracy
- RTCM, CMR, or proprietary outputs
- 25 Position memory
- Self Survey Mode
- Up to 12hr built in battery life or external power
- Rugged IP64 (splashproof) enclosure
- Compatible with wide range of radios to suit location and range requirements

### The Equipment

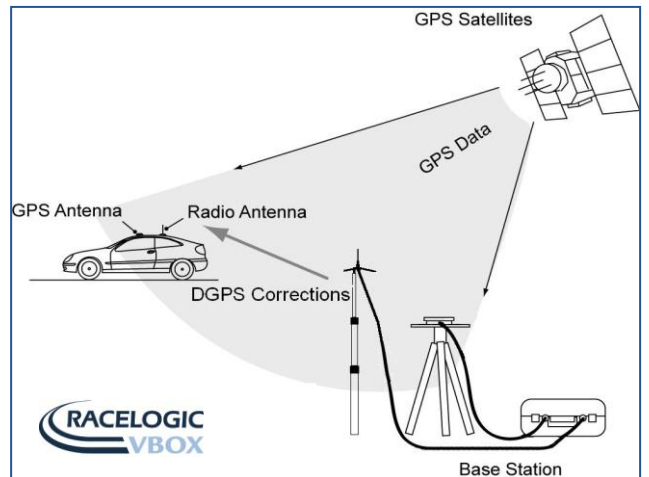
As shown in the 'BaseStation Options' table overleaf, there are two variants to suit different accuracy requirements:

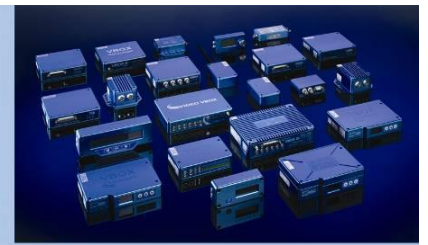
- **GPS BaseStation (RLVBBS4)**: Offers 20cm accuracy when used with an upgraded **VBOX IISX**.
- **GPS+GLONASS+RTK BaseStation (RLVBBS4RG)**: Offers 2cm accuracy when used with a **VBOX 3i** with RTK and GLONASS.

Both options also offer 40cm DGPS accuracy, for use with all VBOX GPS data loggers and third party systems that can take RTCM corrections.

Communication with external units is carried out via radio. The BaseStation is designed to work with a variety of different radios, to suit different requirements.

Racelogic have a number of radio sets available, allowing you to select the most suitable frequency and range for your region. See the Radios info sheet or contact Racelogic to find out more.





## BaseStation Options

Code	Product	DGNSS Accuracy	Works with
RLVBBS4	DGNSS BaseStation (GPS Only)	40cm 95% CEP*	All VBOX GPS Units (except VBOX Mini) and equipment that can take RTCM corrections
		20cm 95% CEP*	VBOX II SX**
RLVBBS4RG	DGNSS BaseStation (GPS + GLONASS + RTK)	40cm 95% CEP*	All VBOX GPS Units (except VBOX Mini) and equipment that can take RTCM corrections
		2cm 95% CEP*	VBOX 3i R2G2: 20Hz RTK and GLONASS VBOX 3i R10G10: 100Hz RTK and GLONASS

\* 95% CEP (Circle Error Probable) means 95% of the time the position readings will fall within a circle of the stated diameter

\*\* Chargeable upgrade required for VBOX II SX to use 20cm Mode

## Specifications

<b>Inputs</b>	<b>Voltage</b>	8 to 19V DC (19V for optimum battery charge – charger supplied)
	<b>Antenna</b>	Active antenna
<b>Outputs</b>	<b>Data Format In 40cm mode</b>	RTCM Type 1, 3
	<b>Radios</b>	None included. Variety of radios available depending on country and range requirements: please see radios infosheet or contact Racelogic
<b>Memory</b>	<b>GPS Position</b>	25 locations

## In the box

- VBOX DGNSS Base Station
- Survey grade GPS antenna
- Antenna tripod
- Battery charger / Mains supply (100 to 240V ac)

