

On the trail of the Hornets

G13H5R VB

The G13H5R VB is an ultra-light, rechargeable transmitter for tracking insects and was developed specifically for the Asian hornet (*Vespa Velutina Nigrithorax*). It transmits in the 148 and 150 MHz frequency range approved by the Network Agency, which enables long reception distances thanks to the comparatively low frequency. The transmitter has an eyelet for attachment, but can also be glued in place. It is currently the lightest rechargeable transmitter available from a European manufacturer.

The transmitter offers an operating time of at least five hours, enabling targeted tracking of insects. Its low weight ensures good flight performance, particularly for *Vespa Velutina*, as it is less affected by the transmitter. The transmitter is activated when it is removed from the charging station.

Charging Station

The charging station allows up to five transmitters to be charged simultaneously. The charging time is approx. 24 hours for an operating time of at least five hours. The transmitter battery is charged with low current to increase the battery life. The transmitters are deactivated in the charging station when the charging voltage is applied. The battery of the charging station can be easily replaced by the user.

WEIGHT

≤ 0.13 g

LIFETIME

≥ 5 Hours

POWER

~ 100 µW

SIZE

5.8 x 8.5 x 2.8 mm

EYELET

1 mm

Unit price excluding VAT.

129 €

WEIGHT

80 g

CHARGING PORTS

5

SIZE

61 x 140 mm

CHARGING VOLTAGE

1.8 V

BATTERY

CR2032

Unit price excluding VAT.

100 €

Charging Station,
no transmitters included



The VB Tracker Set



G13H5R VB and charging station

When putting together this kit, we worked closely with beekeepers and carefully observed which components best help them achieve the results they want.

The set consists of the following items:

- 5x G13H5R VB
- 1x Charging station G13H5R VB
- 1x Moxon Aerial
- 1x Plecso VV Receiver

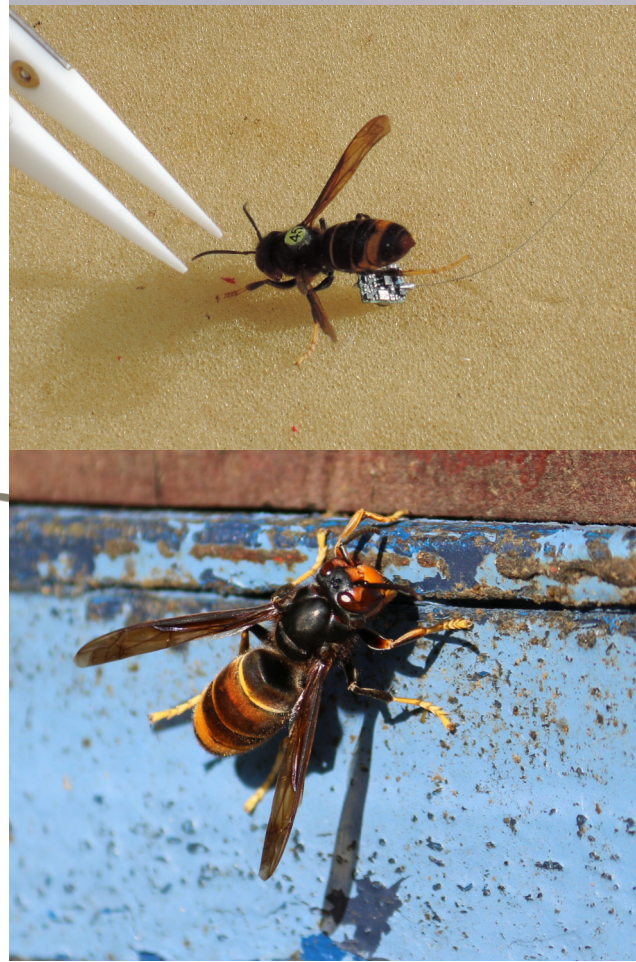
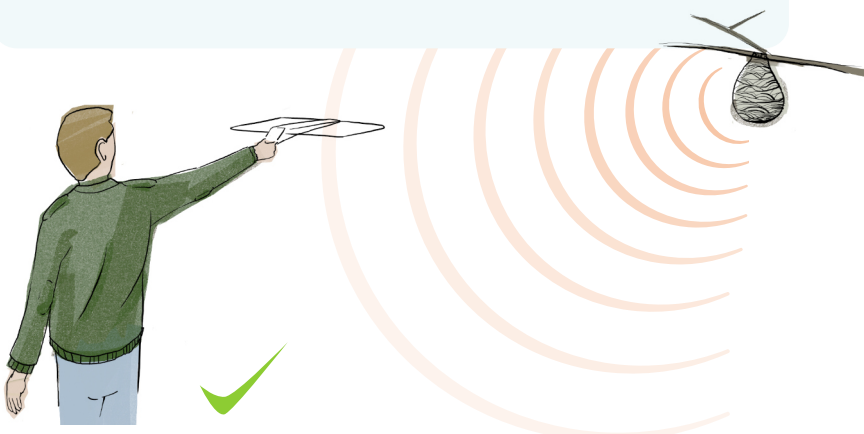
Set price excluding VAT
950 €



How easy is it to take bearings?

The principle of direction finding: The signal gets louder when your antenna points towards the transmitter. It gets quieter when it is held in a different direction. In addition, the signal gets stronger the closer you are to the transmitter.

Each of the five transmitters broadcasts on its own frequency, which can be set on the receiver. The transmitter is activated by simply pulling it out of the charging station.



FAQ

What is the range of the transmitters?

The reception range depends primarily on the topography and cannot be specified in general terms (50 m – 20 km). Optimal reception range is achieved when all conditions for unobstructed propagation are met. Under atmospheric conditions, line of sight is the best scenario. The reception range is reduced by, amongst other things:

- atmospheric conditions
- topography / terrain / vegetation
- water (including humidity, rain)
- buildings

How long do the transmitters operate?

Once activated, the operating time of the transmitters corresponds at least to the specifications on the quotation/invoice/delivery note/data sheet. In the charging station, the transmitters are deactivated and are in the charging state.

How long do the transmitters take to charge?

After 24 hours in the charging station, the transmitters are ready for use within their intended operating time. A longer charging time results in a slightly longer operating time. Long-term storage in the charging station is necessary to maintain the battery's service life.

Can I reorder individual transmitters?

Reordering lost transmitters is no problem at all. Please send an email to info@plecotus-solutions.de or place your order via our online shop at shop.plecso.de.

Can a magnet be used to retrieve the transmitters?

The transmitters themselves are not magnetised, but can be attracted by a magnet. Using a strong magnet, you can retrieve tagged hornets, for example, from the bait pot.

Why are 148/150 MHz good?

At the same power level, a transmitter operating at a lower frequency, such as 148 MHz or 150 MHz, has a greater reception range than, for example, an 866 MHz transmitter, because:

- free-space attenuation increases with rising frequency
- diffraction (bypassing obstacles) increases at lower frequencies
- materials are penetrated more effectively than at higher frequencies

