★ *Denotes features unique to Groundvue GPRs*

Groundvue 3_8 G.P.R.

High Speed Multi-Channel

- Up to 1,600 scans per second
- Traffic speed data collection
- ★ Simultaneous triggering without cross channel interference
- Up to 8 channels – select any number from 1 to 8
- ★ **Independent time sweep** (probing depth in nanoseconds) **on every channel** – 250MHz to 6GHz
- **Independent antenna frequency on every channel**
- ★ Integrated GPS input
- Tablet or laptop operation
- Internal rechargeable battery with option to use external battery

Wireless Operation

Flexibility

- **Multi-channel GPR** which can be used in **single- or multi-frequency modes**
- ★ Also a **High Density Array** in either **single- or multi-frequency**
- ★ **The antennas can be positioned in any configuration that the user requires**
- Up to 8 channels: select any number from 1 to 8
- View 1 to 8 channels on screen simultaneously. Change the view during survey without affecting the data recording
- Selectable wiggle trace on any channel
- ★ Changeable gain and filter settings during survey. This does not affect the recorded data in any way

- ★ Up to 4 receivers can be used with a single transmitter
  Since the antennas are simultaneously triggered, **transmission velocity can be calculated automatically** from the multiple receiver data
- This multi-channel can be used for 3-dimensional SAR processing

Groundvue 3_8 G.P.R.

Efficient Economic Hardware Design

★ **Clear Data** — Internal stacking in the receivers with jittered PRF reduces external interference, resulting in clearer data and less requirement for processing

★ **Modular** — This multi-channel can be used for multiple applications. Why buy two systems if one will do?

Multi-functional — The same system can be used from a trolley or from a vehicle or even hand pulled antennas from the same system

Low power consumption — In the controller and antennas, not solely on the transmitter – max. 1A at 12V (12 watts)

Fully screened — To prevent stray emissions and protect from external transmission

Efficient Economic Software Design

Windows based software — Tablet, laptop or PC
Raw data recorded — No pre-filtering required
Utility mark up function — For locating utilities on-site
On-screen Tzero correction — The correction is automatically stored in the header file for automatic import into processing package (reduction in processing steps)
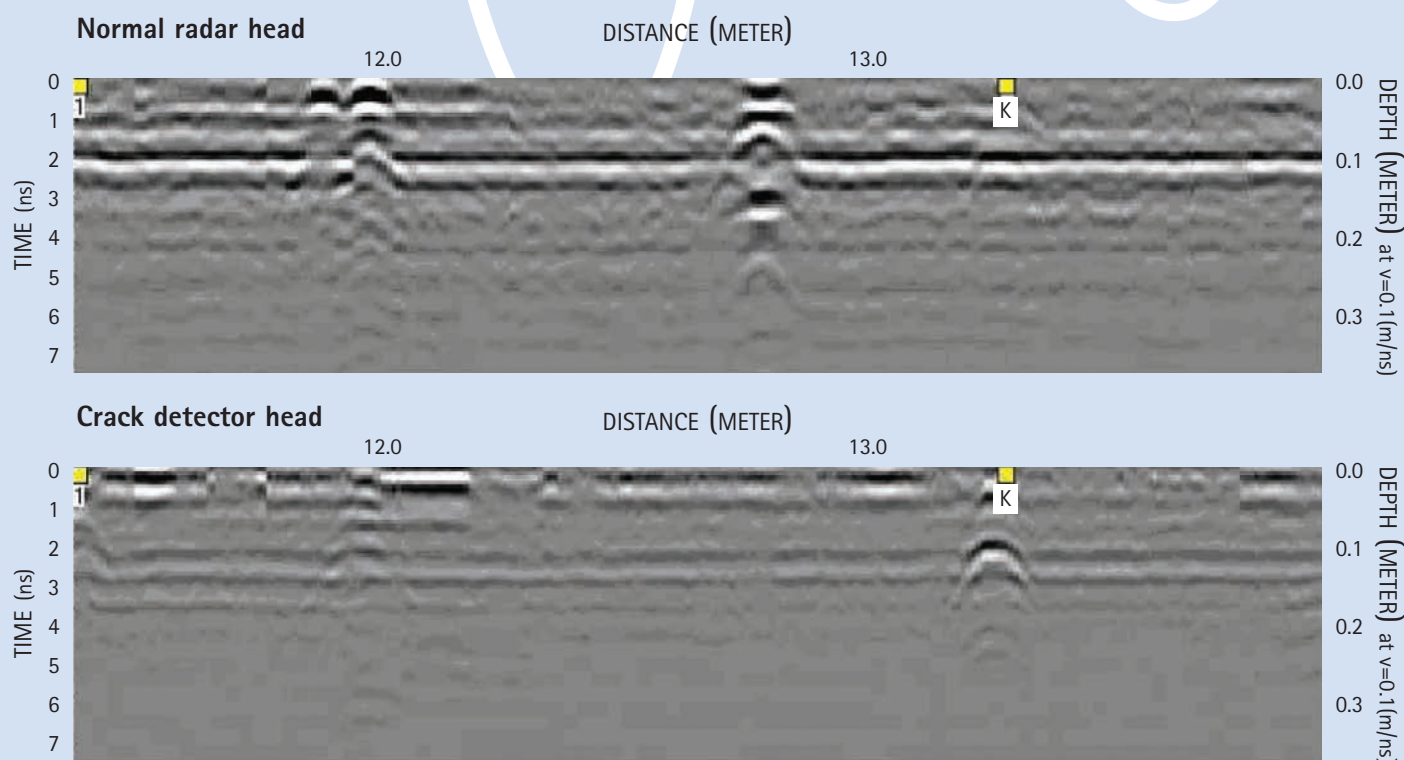
On-screen Background Removal

Added Value Tools

★ **Crack Depth Measurement** — Any GPR can detect areas of generalised cracking. The adapted crack detection head is used for:
- Accurate detection of joints in concrete
- Depth measurement of surface (top down) cracking
- Detection of subsurface (bottom up) cracking on roads, airports and in structures such as concrete loading bays and flat roofs

Sample data – crack depth measurement

Normal radar head

Crack detector head

Marker K shows the position of the crack
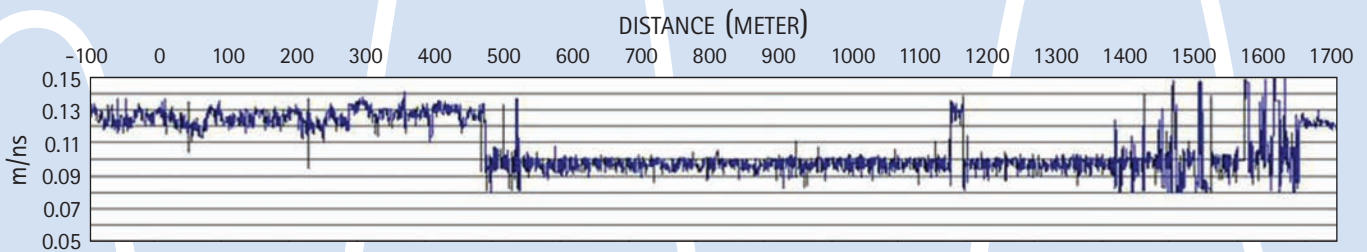
Added Value Tools – continued

★ **Automatic Velocity Calibration**

Groundvue antennas are simultaneously triggered, not sequentially, and without cross channel interference. Using multiple receivers connected to a single transmitter, continuous comparative data is created. Layer tracing generates the information needed to calculate transmission velocity for the full length of the data collected. In the process, any anomalous areas show clearly. An example of continuous automatic velocity calibration is shown below

Velocity / distance

Measured using:

Groundvue 3 1.5GHz antennas (1Tx + 3Rx) and ReflexW software

DISTANCE (METER)

Antenna Frequencies

6GHz, 4GHz (using Groundvue 5), 1.5GHz, 1GHz, 400MHz and 250MHz

Regulation Compliance

ETSI compliant (CE marked)
FCC compliance available on request

Ancillaries

A laptop or tablet is required for radar operation and data storage
A long term data storage system is essential
A basic 12V battery charger is needed to charge the radar batteries

Analytical Software

The ReflexW package is also available. Details on request
Groundvue data is also compatible with Roadscanners, GPR-Slice and Geoscanners software
Data formats can be supplied to other software suppliers on request