RT-21 and RT-22 series
Hand Held Radiation Detector

The RT-21 and RT-22 SUPER SCINT are a robust and compact series of hand held radiation detectors specifically designed to quickly scan for radioactive materials. Models with NaI or BGO scintillator are available as well as models with an extensible telescopic arm for ease of operation when tall objects are to be scanned.

Quickly determining the location of lost radioactive sources in the environment or scrap, monitoring of waste in hospitals or waste incinerators, scanning people or baggage to disclose illicit trafficking of nuclear materials; all are typical applications for the RT-21 and RT-22 series.

- Highest Sensitivity
- Rugged, Lightweight and Compact design
- Graphical Display
- One Button Operation
- USB connection
- Bluetooth (RT-22 only)
- Weather protected
- 2-Year Warranty

The graphical display shows a histogram of the last 100 measurements to quickly determine the location of the radiation. The RT-21 and RT-22 series have a balanced handle equipped with a single push button, that allows for easy one handed operation.

A loud variable pitch audio tone, proportional to the intensity of the gamma radiation detected, provides eyes free searching. Both trip level for the audio as well as a threshold for danger alarms can be set by using GeoView software package.

Georadis is acknowledged as a foremost producer of innovative radiation detection products, devices and solutions. The built-in Bluetooth connectivity for the RT-22 series allows a GPS location to be integrated with the measurement. Bluetooth also provides access for wireless headsets for audio feedback in high noise areas.

The ruggedness, small size and light weight of these instruments, combined with a choice of very sensitive Gamma Ray scintillation detectors makes the RT-21 and RT-22 series very versatile for quick measurements in a large variety of applications.

Applications
- Waste Recycling and Incineration plants
- Scrap metal recycling
- Security and surveillance operations
- Hospitals
- Customs and Border protection
- Nuclear facilities
- Research laboratories
- Production facilities
GeoView Software

To support the administrative and recording requirements for many applications Georadis introduces the software package GeoView. Making a report has never been easier using this universal user interface.

Depending on the instrument, GeoView provides detailed views on collected data such as survey data in both cps and dose rate. User comments can be added to the measured data by using the built-in active notepad. All information is easily exported and then used in external software packages like Google Earth to plot GPS information.

- Survey data
- Calendar based
- Export data to e.g.
  - Google Earth
- Instrument administration
- Add comments
- Maintenance support

The universal connectivity of GeoView allows the download of stored information from any of the connected Georadis instruments via Bluetooth or USB. The SQL oriented database contains all downloaded information from all units in a structured manner and archiving of data was never easier. Multiple users are able to view the information stored in a shared database. In addition GeoView administers and stores the instrument settings for each unit connected, making it easy to manage multiple instruments.

GeoView also provides for maintenance assistance on the Georadis instruments and uploads instrument details and parameters to Georadis Service Centre via Internet. Georadis experts analyse amongst others the Instrument LOGS to check instrument behaviour. Modified settings are then send via Internet to GeoView and the user can then upload these parameters to the instrument.

GeoView is a versatile software package that is installed under Linux or Microsoft Windows operating system.
RT-21 and RT-22 Product Range

The RT-21 and 22 series have an IP65 dust- and waterproof, lightweight cast aluminium housing and a detachable plastic boot with shoulder strap for additional protection under harsh environments. The units are powered by a handy quick change battery pack containing four AA type batteries (Alkaline or Rechargeable). A fully automatic charger is integrated in the unit for use with rechargeable (NiCd or NiMH) batteries.

<table>
<thead>
<tr>
<th>Standard Comparison Table</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Display</strong></td>
</tr>
<tr>
<td>Numerical</td>
</tr>
<tr>
<td>Graphical</td>
</tr>
<tr>
<td><strong>Data acquisition</strong></td>
</tr>
<tr>
<td>Gross Counting</td>
</tr>
<tr>
<td>Spectroscopy</td>
</tr>
<tr>
<td><strong>Connectivity</strong></td>
</tr>
<tr>
<td>USB</td>
</tr>
<tr>
<td>Bluetooth</td>
</tr>
<tr>
<td><strong>Memory</strong></td>
</tr>
<tr>
<td>Medium (4Mb)</td>
</tr>
<tr>
<td>Large (1Gb)</td>
</tr>
<tr>
<td><strong>Software</strong></td>
</tr>
<tr>
<td>GeoView Package</td>
</tr>
<tr>
<td>Isotope Identification</td>
</tr>
<tr>
<td>Assay mode</td>
</tr>
<tr>
<td><strong>Detector type</strong></td>
</tr>
<tr>
<td>NaI, 30 x 30mm</td>
</tr>
<tr>
<td>NaI, 51 x 51mm</td>
</tr>
<tr>
<td>BGO, 51 x 51mm</td>
</tr>
<tr>
<td>GM tube</td>
</tr>
<tr>
<td>Neutron Detector</td>
</tr>
<tr>
<td><strong>Mechanical</strong></td>
</tr>
<tr>
<td>Handheld</td>
</tr>
<tr>
<td>Telescopic arm</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
Technical data

Detectors
NaI(Tl), φ51 x 51 mm (2" x 2"), 104 cm³ (6.3 in³), RT-21, RT-21T, RT-22 and RT-22T.
BGO, φ51 x 51 mm (2" x 2"), 104 cm² (6.3 in²), RT-21B, RT-21BT, RT-22B and RT-22BT.

Scintillometer
Sampling period 20/second

Gamma ray sensitivity free in air at 1m
(for RT-21, RT-21T, RT-22 and RT-22T only)
75 cps/1MBq for Am-241
160 cps/1MBq for Cs-137
270 cps/1MBq for Co-60

Display
Graphic LCD 128x64 pixels 28 x 60 mm
Automatic Backlight

Data Storage and Transfer
(RT-22 series only)
4 MByte FLASH
Bluetooth 1.2 Class 2
GPS Support NMEA 0183
USB 2.0 (all models RT-21 and RT-22)

Environmental
IP-65 Water and Dust resistant
Operating temperature range -10°C to +50°C
RFI/EMF Shielding complies with FCC(47 CFR part 15) for Class A CE Certification

Size (LxWxH) and Weight (incl batteries)
RT-21 & 22: 260x81x96 mm³, 2 kg
(10.2"x3.2"x3.8", 4.4lb)
RT-21B & 22B: 260x81x96 mm³, 2.2 kg
(10.2"x3.2"x3.8", 4.8lb)
RT-21T & 22T: 1225x85x135 mm³, 3.5 kg
(48.2"x3.3"x5.3", 7.7lb)
RT-21BT & 22BT: 1225x85x135 mm³, 3.8 kg
(48.2"x3.3"x5.3", 8.4lb)

Package
Aluminium outer case (RT-21, RT-21B, RT-22 and RT-22B)
Special mould plastic case (RT-21T, RT-21BT, RT-22T and RT-22BT)
AC Net power adaptor
Spare battery cartridge
User guide
GeoView software (RT-22 series only)