

RD8200 Technology driven best on-site practise pipeline detector,[pipeline detection equipment](#)

## Product Description

# RD8200™ locator specification

Precision locators



## 1. Product Summary

1.1 Product Descriptions	Multi-purpose Precision Locator Cable and Pipe Locator Locate System Receiver Multi-function Precision Locator
1.2 Intended Use	Locating the position / path of buried cables and pipes Detecting and pinpointing insulation faults on buried cables and pipes Creating survey records of buried cables and pipes locations
1.3 Standard Equipment	Locator Quickstart guide Type C to USB A data cable

## 2. Performance

2.1 Sensitivity	6E-15 Tesla 5μA at 1 meter (33kHz)
2.2 Dynamic range	140dB rms/√Hz
2.3 Selectivity	120dB/Hz
2.4 Depth measurement precision <sup>1</sup>	± 3%
2.5 Locate accuracy	± 5% of depth
2.6 Active Locate filter bandwidth	± 3Hz, 0 < 1kHz ± 10Hz, ≥ 1kHz
2.7 Start-up time	<1 second
2.8 Maximum depth readout <sup>2</sup>	Metric: Cable / Pipe: 30m Sonde: 19.5m Imperial: Cable / Pipe: 98' Sonde: 64'

## 3. Locate Functions

3.1 Active Locate Modes	Five: <ul style="list-style-type: none"><li>• Peak</li><li>• Peak+™ (choice of combined Peak &amp; Guidance or Peak &amp; Null)</li><li>• Guidance</li><li>• Broad Peak™</li><li>• Null</li></ul>
3.2 Gain control	Guidance Mode: Automatic Other modes: Manual gain using "+" or "-" with one touch to return to center (50% of Full Scale)
3.3 Custom locate frequencies	Up to 5 additional frequencies in the range 50Hz to 1kHz at 1Hz resolution
3.4 Active locate frequencies	21 Frequencies: ELF (98/128Hz), 512Hz, 570Hz, 577Hz, 640Hz, 760Hz, 870Hz, 920Hz, 940Hz, 1090Hz, 1450Hz, 4096Hz, 8kHz, 8440Hz, 9820Hz, 33kHz, 65kHz, 82kHz, 83kHz, 131kHz and 200kHz
3.5 Sonde Frequencies	4 Frequencies: 512Hz, 640Hz, 8kHz and 33kHz
3.6 Fault Find	8KFF and CDFF Locate insulation sheath faults on pipes and cables to 10cm / 4" accuracy using the accessory A-Frame and a compatible transmitter

3.7 Current Direction™ (CD) Signal Pairs	14 CD Pairs: 219.9/439.8Hz, 256/512Hz, 280/560Hz, 285/570Hz, 320/640Hz, 380/760Hz, 460/920Hz, 4096/8192Hz, 680/340Hz (INV), 800/400Hz (INV), 920/460Hz (INV), 968/484Hz (INV), 1168/584Hz (INV), 1248/624Hz (INV), Confirm operator is following the target pipe or cable with CD arrows and a compatible transmitter																				
3.8 Passive Locate Modes	<ul style="list-style-type: none"><li>• Power</li><li>• Radio</li><li>• CPS – cathodic protection system</li><li>• CATV – Cable TV</li><li>• Passive Avoidance – simultaneous locate of power and radio</li></ul>																				
3.9 Power Filters™ function	Switch out of sensitive Power Mode to locate on any of 5 individual mains harmonic frequencies:																				
	<table><tr><th>HARMONIC</th><th>50 Hz regions</th><th>60 Hz regions</th></tr><tr><td>Primary</td><td>50 Hz</td><td>60 Hz</td></tr><tr><td>3rd</td><td>150 Hz</td><td>180 Hz</td></tr><tr><td>5th</td><td>250 Hz</td><td>300 Hz</td></tr><tr><td>7th</td><td>350 Hz</td><td>420 Hz</td></tr><tr><td>9th</td><td>450 Hz</td><td>540 Hz</td></tr></table>			HARMONIC	50 Hz regions	60 Hz regions	Primary	50 Hz	60 Hz	3rd	150 Hz	180 Hz	5th	250 Hz	300 Hz	7th	350 Hz	420 Hz	9th	450 Hz	540 Hz
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3.10 Information displayed	<ul style="list-style-type: none"><li>• Signal strength - moving bar graph and numeric value</li><li>• Mode indication (Peak, Null, Guidance, Broad Peak, Peak+ with option of Guidance arrows or Null arrows)</li><li>• Line or Sonde locate type</li><li>• Proportional left/right indication</li><li>• Compass: full 360° line direction indicator</li><li>• Accessories in use indication</li><li>• Accessory specific custom screen</li><li>• Depth and current readout (Line location)</li><li>• Depth readout (Sonde location)</li><li>• Gain level (in dB)</li><li>• Frequency selected</li><li>• Battery condition</li><li>• Speaker volume</li><li>• Operating frequency</li><li>• Bluetooth status</li><li>• GPS satellites in view (where fitted)</li><li>• GPS status (where fitted)</li><li>• Configuration menu and submenus</li><li>• Software version</li><li>• Last calibration date</li><li>• Survey measurement counter</li><li>• Current Direction mode indicator</li><li>• Current Direction arrows</li><li>• Fault Find mode indicator</li><li>• Transmitter communication status</li><li>• Transmitter standby status</li><li>• StrikeAlert™ warning</li><li>• Overload warning</li><li>• Swing warning</li></ul>																				
3.11 Audio output tones	<p><b>Volume level:</b> VOL0, VOL1, VOL2, VOL3, VOL4 and VOL5</p> <p><b>Audio Level Pitch:</b> Low and High</p> <p><b>Audio feedback for menu navigation</b></p> <p><b>StrikeAlert audio warning</b></p> <p>Swing audio warning</p> <p><b>Power / Passive Avoidance / Radio modes:</b> Real Sound™ derived from detected electromagnetic signal</p> <p><b>Peak / Peak+ modes and CPS / CATV modes:</b> Synthesized audio tone proportional to signal strength</p> <p><b>Guidance mode:</b> Continuous tone when locator is to the left of target, intermittent tone when to the right of target</p> <p><b>Null mode:</b> Synthesized Audio tone proportional to signal strength. Low pitch to left of target, high pitch to right of target</p>																				

## 4.Connectivity

Wireless connections	Bluetooth 2.0 - SPP profile, class 1 BLE 5.0
iLOC™ remote transmitter control range	Metric: Up to 450m Imperial: Up to 1400'
iLOC remote transmitter control functions	Set transmitter frequency Set transmitter power output level Transmitter standby SideStep
Wired connections	Type C USB: Connect to a PC to configure and update locator, and to retrieve usage log and survey measurement data 3.5mm Stereo jack: Connect wired headphones Accessory port: Connect Radiodetection accessories

## 5.Data capabilities and GNSS

On-board GNSS ('GPS') option	GNSS data automatically added to Survey Measurements every time locate data is saved, and every second on usage-logging data Accurate to 2.5m CEP with SBAS enhancement available Supports GPS and GLONASS satellites constellations SBAS - Augmentation systems (where available) <ul style="list-style-type: none"> <li>• WAAS - North America</li> <li>• EGNOS - Europe</li> <li>• MSAS - Japan</li> <li>• GAGAN - India</li> </ul>
Link to external GNSS ('GPS')	Over Bluetooth • Connect to an external GNSS enabled device to combine survey measurements with that device's GNSS data on the external device.
External GNSS position read-in to locator memory	Connect to an external GNSS device to read positional positioning from that device and combine with the locator's survey measurement data on board the locator 4.
Usage-logging capacity	Over 500 days, measured at 8 hours use per day
Survey measurement capacity	Up to 1,000 data records
Survey measurement export options	Bluetooth - 'live,' per measurement Bluetooth - batch export USB - selectable/batch export
Bluetooth survey measurement data protocol options	PPP ASCII (choice of 3 formats) Optional GPS data appended

## 6.Power options

Alkaline	2 x D-Cell (MN1300 / LR20) alkaline batteries (standard)
Rechargeable	Custom Lithium-Ion (Li-Ion) battery pack 2 x D-Cell (MN1300 / LR20) Nickel Metal Hydride (NiMH) batteries
Battery run-time (continuous) 5	Li-Ion pack: 35 hours 2 x Alkaline D-Cells 13 hours
Battery chemistry identification	Lithium-Ion pack: Automatic sensing NiMH / Alkaline: Software switchable
Charging options (Li-Ion pack)	Mains charger: 100-250 Volts AC, 50/60 Hz Automotive charger: 12-24V DC
Charging time (Lilong pack)	3 hours to 80% from empty with maintenance trickle charging thereafter

## 7.Physical Characteristics

Construction	Injection Molded ABS Plastic
Weight	With Lithium-Ion battery pack fitted:Metric: 1.8kg  Imperial: 4.0lb  With D-cell alkaline batteries fitted:  Metric: 1.9kg  Imperial: 4.2lb
Ingress Protection rating	IP65 Protected against dust ingress and jets of water6 applied from any direction
Display type	High contrast custom made monochrome LCD
Audio options	Built-in waterproofed speaker 3.5mm headphone socket
Operating temperature7	Metric: -20°C to 50°C Imperial: -4°F to 122°F
Storage temperature	Metric: -20°C to 70°C ,Imperial: -4°F to 158°F
Unit dimensions	Metric: 648mm x 286mm x 125mm Imperial: 25.5" x 11.3" x 4.9"
Shipping dimensions	Metric: 700mm x 260mm x 330mm Imperial: 27.6" x 10.2" x 13"

8.Compatible Accessories	1.Li-Ion rechargeable battery mains kit (Includes mains charger)
	2.Li-Ion automotive charger, Li-Ion mains charger
	3.Soft Carry Bag Wheeled Flight Case Hard Case
	4.Metric: 50mm Locator Clamp Imperial: 2" Locator Clamp Metric: 100mm Locator Clamp Imperial: 4" Locator Clamp Metric: 130mm Locator Clamp Imperial: 5" Locator Clamp CD and Current Measurement Clamp
	5.Stethoscope, Sonde, Submersible DD Antenna, Flexrods, A-Frame Bag, Headphones