

High Performance, Application Specific Cable Avoidance



Three world class cable & pipe locators
RD2000+ | **RD2000^S** | **RD2000^{CPS}**



Radiodetection

3 active frequencies

Optimised locating whatever the utility or pipe material (metallic or non-metallic) large or small.

StrikeAlert™

Alerts the user to the presence of shallow power cables.

Precision locate

Accurate pinpointing through quick meter response and real sound with depth.

Optimised locate

Effective operation even in congested sites with unwanted interference.

Introducing a high performance range of utility locating tools...

Within the worldwide construction industry buried utilities represent a major hazard. Excavations that are not properly planned can cause damage to pipes or cables – often resulting in costly repairs, delays and, in some instances, personal injury. The RD2000 receiver and T1 transmitter apply the latest technology in locating these services. Whilst Passive location provides a sweep for buried cables and pipes, the best tool for accurate pinpointing of cables, pipes and drains is active frequency. However there is no single frequency suited to all utilities, size and topology. Therefore Radiodetection has developed the RD2000 range; optimised pin-point location from not one or two, but three frequencies. Whatever your location needs there is an RD2000 model to address them, all with 3 active frequencies.

- For accurately locating, mapping and finding blockages in the widest variety of types of pipe including cast iron, clay, concrete and plastic, choose the RD2000^S (Sonde) for unbeatable performance.
- For optimum location of metal pipes of any size or topology, and for locating of pipes with a Cathodic Protection System employ RD2000^{CPS}.
- For high performance locating of multiple utilities choose the RD2000⁺.

Three Active Locate Frequencies

Buried services utilise multiple materials and sizes. The operator needs to not only locate his particular pipe or cable but those of other utilities repeatedly with speed, accuracy and ease. This is often whilst operating in constrained areas.

Radiodetection has recognised that even locating with 2 active frequencies is limiting. Therefore we have introduced the RD2000 with three active frequencies to address the broad needs of all the utility sectors. Depth readout is provided where signals permit.

StrikeAlert™ (Optional)

Although work practices and guidelines insist power cables are buried below a certain depth, a common cause of cable strikes, damage and injuries is unexpectedly shallow cables. Many power utility plans do not provide depth accurate maps. Further, Highway alterations and moving property boundaries mean that cable position can be changed both vertically and horizontally relative to previous plans. To address such problems, the StrikeAlert™ feature alerts the user to shallow cables and utility lines in both Power and Active transmitter modes.

Locate Quality

The RD2000 range addresses industry specific needs for efficient, simple to use location. Fast response time from the speaker and the bar graph enable accurate pinpoint location, ensuring the user is in full control throughout.

LOCATE QUALITY - fast sound and meter response

DYNAMIC RANGE:
120dB (@ 10Hz bandwidth)

SELECTIVITY:
141dBrms / $\sqrt{\text{Hz}}$

SENSITIVITY:
 5×10^{-15} Tesla (32,768Hz, 1Hz bandwidth)

Enhanced signal processing

Using patented Radiodetection signal processing techniques the RD2000 range has the ability to reject unwanted signals in the most demanding environments. Even with interference from overhead electrical cables and congested sites, this enhanced Signal Processing ensures that the information displayed is accurate and repeatable. Radiodetection locators lead the world in performance and operation.

Real Sound

RD2000 provides “Real Sound”; the sound you hear from the speaker is derived from the cable or pipe. For the inexperienced user it is important to distinguish the signal from the background noise that is radiated. “Real Sound” makes this task so much easier.

Batteries

Many competitors' products use six or even eight batteries. The RD2000 receiver uses just two “D cells” reducing the overall running costs of the unit.





In the P mode the RD2000 detects 'power' signals that are being radiated by loaded cables.



Power



In the R mode the RD2000 detects VLF radio signals re-radiated by buried metallic pipes and cables.



Radio



In the active Line mode the RD2000 detects a tone radiated by a transmitter e.g the T1 to a buried conductor.



Line



In Sonde/CPS Mode deployed sonde frequencies or Cathodic Protection Systems (CPS) are detected.



Sonde



CPS

DETACHABLE LOUDSPEAKER FOR NOISY CONDITIONS

AUTO BACKLIT LCD

BAR GRAPH FOR SIGNAL STRENGTH

FREQUENCY SELECTION

TRIGGER SWITCH - SWITCHES OFF AUTOMATICALLY, WHEN NOT IN USE

SENSITIVITY CONTROL

MODE SELECTOR SWITCH

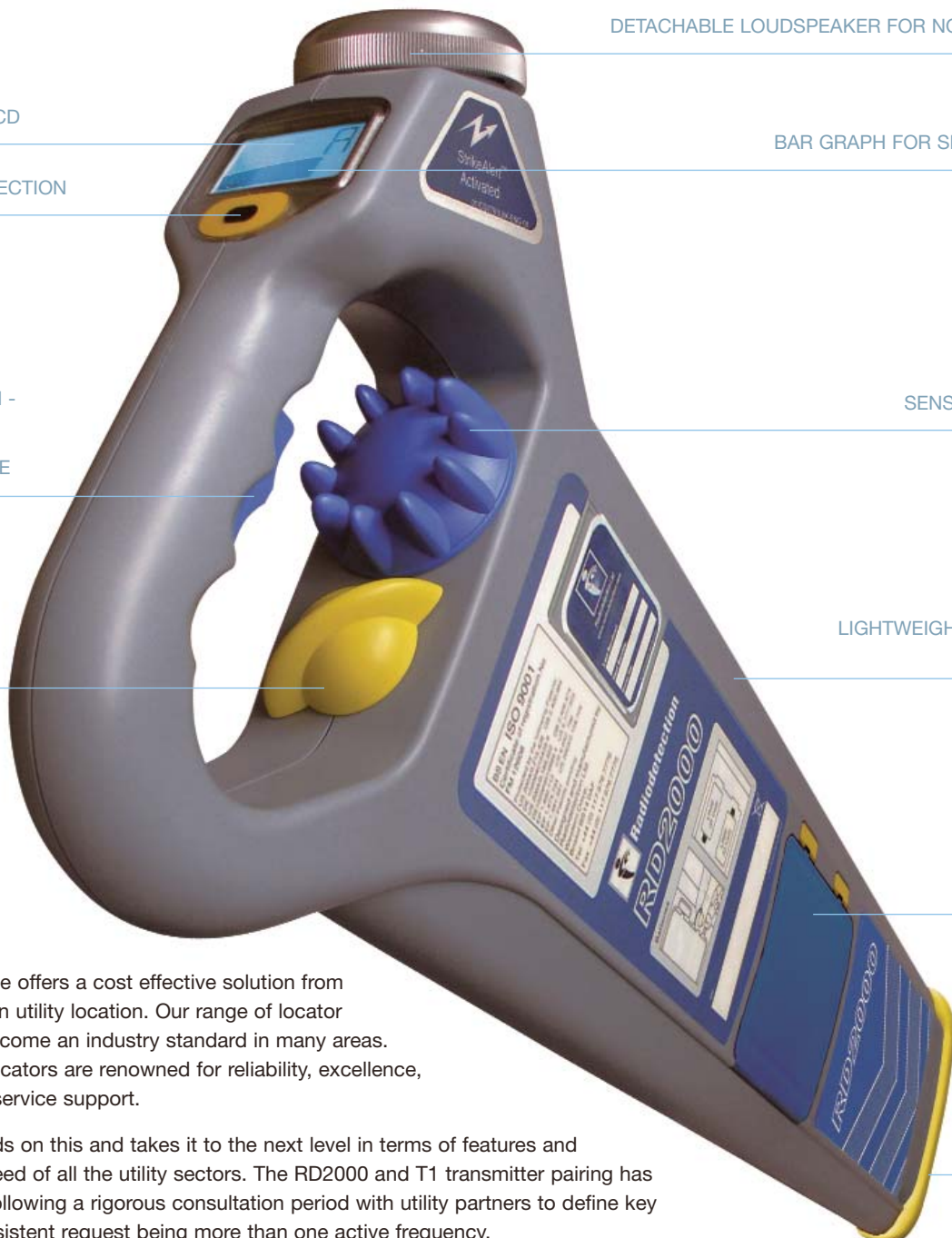
LIGHTWEIGHT, ALL-WEATHER, HI-IMPACT ABS

BATTERY COMPARTMENT

The RD2000 range offers a cost effective solution from the world leader in utility location. Our range of locator products have become an industry standard in many areas. Radiodetection locators are renowned for reliability, excellence, ease of use and service support.

The RD2000 builds on this and takes it to the next level in terms of features and addressing the need of all the utility sectors. The RD2000 and T1 transmitter pairing has been produced following a rigorous consultation period with utility partners to define key features. The persistent request being more than one active frequency.

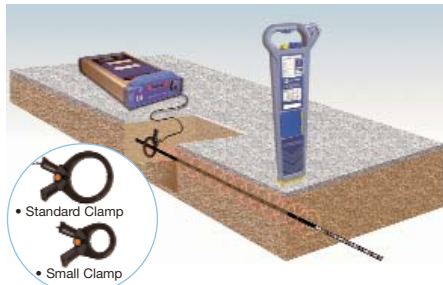
REPLACEABLE WEARFOOT





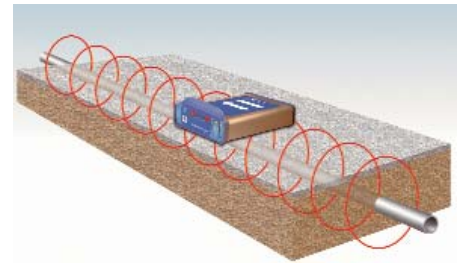
DIRECT CONNECTION

The most effective method for connecting to a valve, meter, junction box or other access point, as long as access is possible.



SIGNAL CLAMPING (Optional)

Applies a transmitter signal safely to a pipe or live cable up to 76mm diameter without interrupting the supply.



INDUCTION

A convenient and quick way of applying the transmitter signal to pipe or cable, where direct connection or signal clamping is not possible.

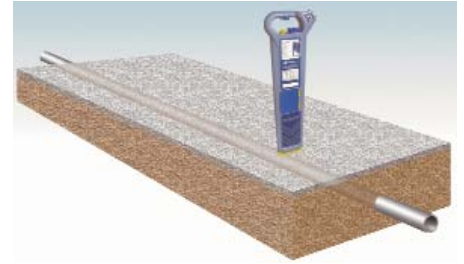
LOUD SPEAKER

BATTERY COMPARTMENT



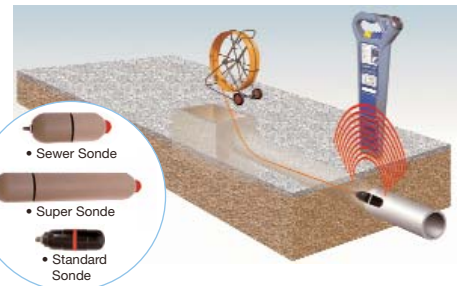
ON/OFF SWITCH

DIRECT CONNECTION SOCKET



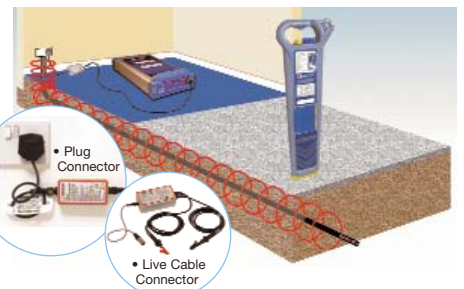
CPS (Optional)

Cathodic Protection Systems are used to deter metallic pipes from corroding. In CPS mode such pipes can be accurately located.



SONDE (Optional)

A Sonde is a self-contained transmitter which is connected to a push rod and inserted into a non-metallic pipe or duct structure. This enables non metallic pipes to be accurately traced, depth determined and the position of blockages accurately identified.



LIVE CABLE CONNECTORS (Optional)

For applying the transmitter signal to a live cable, the most certain method of locating a power distribution system in a street.

Application based locating

RD2000⁺

Multi-utility locator using their active frequencies

RD2000^s

Pipe locator using Sondes

RD2000^{CPS}

Metal pipe locator using CPS signals

		RD2000 ⁺	RD2000 ^s	RD2000 ^{CPS}
PASSIVE				
POWER	P	50Hz or 60Hz	50Hz or 60Hz	50Hz or 60Hz
RADIO	R	15-30kHz	•	15-30kHz
ACTIVE				
LINE	L	512Hz or 640Hz, 8kHz, 33kHz	•	512Hz or 640Hz, 8kHz, 33kHz
SONDES	S	33kHz	512Hz or 640Hz, 8kHz, 33kHz	•
CPS	C	•	•	100Hz or 120Hz
STRIKEALERT™		OPTIONAL	OPTIONAL	OPTIONAL

LOCATOR

RD2000 TECHNICAL SPECIFICATION			LOCATING DEPTH GUIDE (m)	
MODE	FREQUENCY	SENSITIVITY @ 1m	GOOD CONDITIONS	POOR CONDITIONS*
POWER	50Hz or 60Hz	5 mA	3	2
RADIO	15 - 30kHz	25 µA	2	1
T1	512Hz	500 µA	3	2
	640Hz	500 µA	3	2
	8kHz	100 µA	3	2
	33kHz	5 µA	3	2
LOCATE ACCURACY:		±10% of depth.		
DEPTH ACCURACY:		on undistorted signal and with no adjacent signals. Line ± 5% 0.1 m to 3 m (4in to 10 ft), Sonde ± 5% 0.1 m to 7 m. (4in to 16 ft)		
BATTERIES:		2 x LR20 (D) 1.5 V alkaline. 40 hours life, nominal @ 20°C (68°F) intermittent use. Compatible with D type NiMH rechargeable batteries		
WARRANTY:		12 Months		

TRANSMITTER

T1 TECHNICAL SPECIFICATION		
DESCRIPTION	T1 - 512**	T1 - 640**
INDUCTION FREQUENCY	8kHz, 33kHz	8kHz, 33kHz
DIRECT CONNECT FREQUENCY	512Hz, 8kHz, 33kHz	640Hz, 8kHz, 33kHz
APPROVALS	EN 300 330-2-V1.1.1, EN 301 489-3-V1.2.1, BS EN 61010-1 1993/A2:1995	
POWER OUTPUT:	1/4w or 1w	
BATTERIES:	4 x LR20 (D) 1.5V Alkaline, 12 hours nominal life at 20°C (68°F)	
WARRANTY:	12 Months	

* Relatively high levels of interference in congested areas

** Other Radiodetection transmitters are available with a range of frequencies

World leaders



Technical support



Servicing and repair



Training

CITB

Radiodetection is a proud member of the SPX group of companies, which provide technical products and service solutions worldwide.

Radiodetection and its associated companies specialise in the design and manufacture of products for the location and maintenance of underground pipes and cables. Our aim is to be viewed as the supplier of choice of "high performance" quality equipment using advanced product technologies. We are committed to both design innovation and customer support.

To view the full range of products and services provided by Radiodetection group visit www.radiodetection.com

Radiodetection Locator users have easy access to technical support. A call to your regional representative, or the Radiodetection head office, will put you in contact with our team of field-experienced technical experts.

Radiodetection has a team of factory-trained service technicians and a dedicated service facility accredited to ISO 9000. Turnaround is fast, and costs are very competitive. All repairs carry a six month warranty.

Locator product training for your operators and training personnel is available at your site, or at Radiodetection's headquarters. Training, by qualified instructors, usually lasts half a day. Each trainee receives a certificate to confirm they have received training on a course registered with CITB.

Radiodetection (China) Ltd.
Room 708, CC Wu Building
302-308 Hennessy Road, Wan Chai
Hong Kong SAR, China
Tel: 00852 2803 5881
Fax: 00852 21109681
Email: sales.uk@radiodetection.spx.com

Radiodetection Sarl
13 Grande Rue, 76220
Neuf Marche, France
Tel: +33 (0) 232 8993 60
Fax: +33 (0) 235 9095 58
Email: info.fr@radiodetection.com

Radiodetection Ltd.
Western Drive, Whitchurch
Bristol BS14 0AF
United Kingdom
Tel: +44 (0) 117 976 7776
Fax: +44 (0) 117 976 7775
Email: sales.uk@radiodetection.spx.com

Radiodetection (Japan) Ltd.
Room 203, Maida Building
7-25, Hiroshiba - Cho Suita, Osaka
564-0052, Japan
Tel: +81 (0) 6 6192 0211
Fax: +81 (0) 6 6192 0212
Email: sales@radiodetection.co.jp

Radiodetection B.V Benelux
Industriestraat 11, 7041
GD's-Heerenberg, Netherlands
Tel: +31 (0) 314 66 47 00
Fax: +31 (0) 314 66 41 30
Email: info@radiodetection.nl

Radiodetection
154 Portland Road, Bridgton
Maine 04009, USA
Toll Free: 1-877-247-3797
Tel: (207) 647-3185
Fax: (207) 647-9596
Email: Bridgton@radiodetection.spx.com

Mactek Pty. Limited
A Subsidiary of Radiodetection Ltd.
Unit 20, 14 Jubilee Ave, Warriewood
NSW 2102, Australia
Tel: +61 (0) 2 9979 8555
Fax: +61 (0) 2 9979 7733
Email: mactek@mactek.co.au

Radiodetection Sp z o.o
ul.Knapowskiego 23
60-126 Poznan, Poland
Tel: +48 (0) 61 8668298
Fax: +48 (0) 61 8668279
Email: sales.pl@radiodetection.com



Radiodetection

www.radiodetection.com

Radiodetection products are under continuous development and are subject to change, we reserve the right to alter or amend any published specification without notice.

StrikeAlert™ is a trademark of Radiodetection Ltd.

Copyright 2005 Radiodetection Limited. All rights reserved.

Radiodetection Ltd. is a subsidiary of SPX Corporation.

90/RD2000/ENG-01