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RADIODETECTION®

# RD5100 Series

Precision water industry pipe and cable locator kits



SPX®

Since Radiodetection launched the first commercial, twin antenna, cable and pipe locators over 40 years ago, we have pioneered many technologies that are used widely in the location industry today. Behind developments such as depth measurement, *StrikeAlert*<sup>®</sup> and Compass orientation, is a drive to make the excavation of buried utilities easier and safer.



Tracing buried pipes and cables can present major difficulties. This can be made even worse in cases where a pipe has rubber seals, insulators or gaps between sections. These problems, if not overcome, can result in costly repairs, delays and in some instances personal injury.

The RD5100 series has been designed to address these issues. Ease of use is at the heart of the products, coupled with the accuracy, repeatability and reliability you have come to expect from Radiodetection's locator products.



# RD5100 range overview

Three products specifically addressing the concerns and challenges of users in the Water Industry locating buried pipes and cables.

## RD5100H<sub>2</sub>O

A precision locator/transmitter pair offering 83kHz Guidance mode and Power mode with depth. 83kHz is very well suited to disjointed pipes and cables, and plastic pipes with tracer wire. The signal can be applied either by direct connection or by induction, which is also an excellent way of lighting up all nearby conductors for blind locates.

## RD5100S

A precision locator of 3 different sonde frequencies for tracing all types of non-metallic pipe. Upgrade with up to 4 active line locating frequencies later as your needs develop.

## RD5100H<sub>2</sub>O+

A precision locating kit offering a suite of active, passive and sonde frequencies specifically targeting the needs of Water Industry users. Guidance mode helps you trace your target with user-friendly visual and audio guides, while iLOC™ allows you to control the transmitter remotely using the locator.



## iLOC

Save time on site by controlling your transmitter from distances of up to 1400 feet / 450 meters.



**Built for on-site use – IP65**  
Shock resistant, ingress protected casing protects against knocks, drops, water and dust.

# RD5100H<sub>2</sub>O+ locator

Light weight and ergonomic design for comfortable use

Alkaline battery pack (2 x LR20 D-cells)

Headphone connection

Splash-proof keypad

High contrast screen provides clarity even in bright sunlight

**3 YEAR WARRANTY  
ON REGISTRATION AND A  
GLOBAL SERVICE NETWORK  
PROVIDE PEACE OF MIND**

# RD5100H<sub>2</sub>O+Tx transmitter

iLOC™

## Locate over longer distances

90V signal output and automatic impedance matching

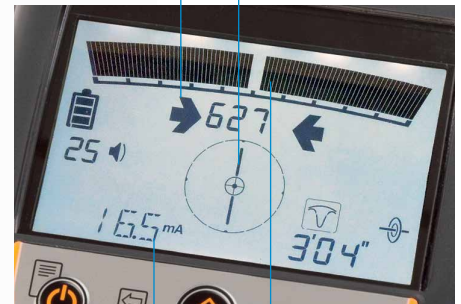
Base tray for accessories

## Guidance mode

The length of the arrow tails is proportional to the distance from the target as the RD5100 guides you towards the pipe or cable of interest. The Target Position Indicator also indicates the direction to the target.

Left/Right arrows

Compass



Current, in active mode

Target Position Indicator



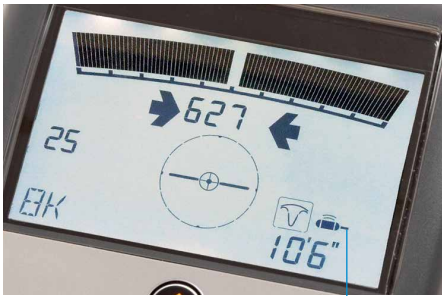
Signal strength

Depth

## Guidance mode – TPI turned off

Left/right arrows, plus a Numerical indication from 0 to 999 of the strength of the field from the target, helps you pinpoint its position. Compass, depth and current, when relevant, are also shown in this mode.

## RD5100S locator



Sonde mode:  
Detects the signal radiated  
by a compatible sonde



Alkaline battery pack  
(2 x LR20 D-cells)

High visibility reflective  
design helps protect  
operators and equipment

## RD5100H<sub>2</sub>O locator



Li-Ion rechargeable battery pack  
(standard on RD5100H<sub>2</sub>O)

**LITHIUM-ION RECHARGEABLE  
BATTERY FOR BOTH LOCATOR  
AND TRANSMITTER PROVIDE  
EXTENDED RUNTIME WITH  
REDUCED RUNNING COSTS**

## RD5100H<sub>2</sub>O Tx transmitter

Internal Li-ion batteries and 4 x D-Cell (LR-20) battery compartment



Induction mode alignment arrow:

Line arrow up with the target pipe or  
cable to achieve the best coupling

Multi use socket:

Direct connection output  
Accessory output  
Li-ion battery charging input

## Standard features on all three locators include:

**Guidance Mode** – the Target Position Indicator, proportional arrows and audio signals guide you towards the target pipe or cable. The orientation and the Signal Strength given out by the target is also displayed.

**Compass** – a visual indication of the target pipe or cable's orientation, simplifying the task of following the correct target line.

**TruDepth™** – depth readings are given only when the RD5100 is correctly oriented above the target. RD5100 locators are available in Imperial and Metric versions.

**Audio tones** – in Guidance Mode a continuous tone to the left of the target and an intermittent tone to the right helps guide you towards and along the target.

**Dynamic Overload Protection** – reduces the effect of interference that can swamp other locators' detection circuitry, enabling use in electrically noisy environments such as near substations or overhead power lines.

**Depth and Current** – a simultaneous read-out on active lines for confidence you are following the correct target.

## Model specific features include (see specifications table for details):

**CD (Current Direction)** – identify your target amongst a number of parallel utilities by applying a specialized CD signal from the transmitter.

**iLOC™** – a remote control link between locator and transmitter, allowing you to control the locate signal's power and frequency from up to 1400'/450m away. Spend less time walking and more time locating.

**90V Transmitter output** – put more locate signal on high impedance target lines

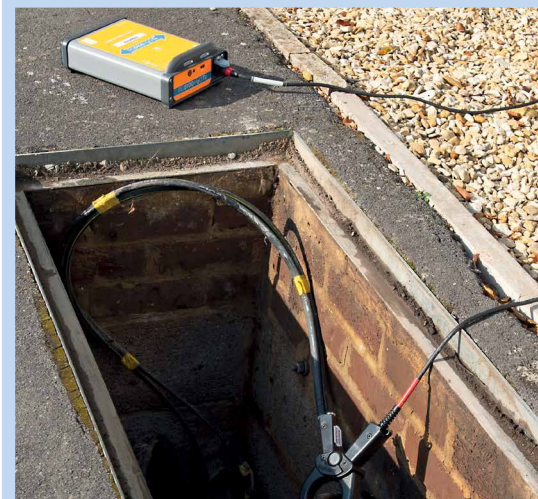
**StrikeAlert™** – visual and audio warnings of shallow cables reduces the risk of accidents.

**Rechargeable batteries** – Li-Ion packs for both locator and transmitter offer a full working day's operation from one complete charge.



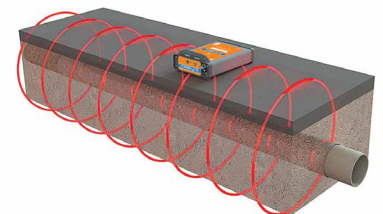
### Direct connection

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



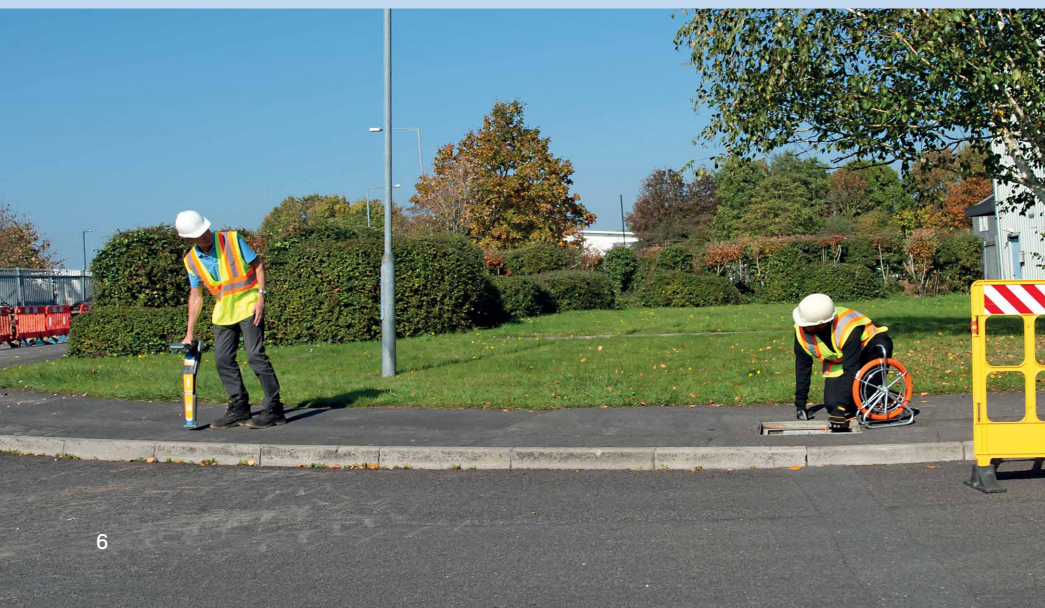
### Signal clamping (Optional)

Applies a transmitter signal safely to a pipe or live cable up to 125mm/5" diameter without interrupting the supply.



### Induction

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



# Specifications

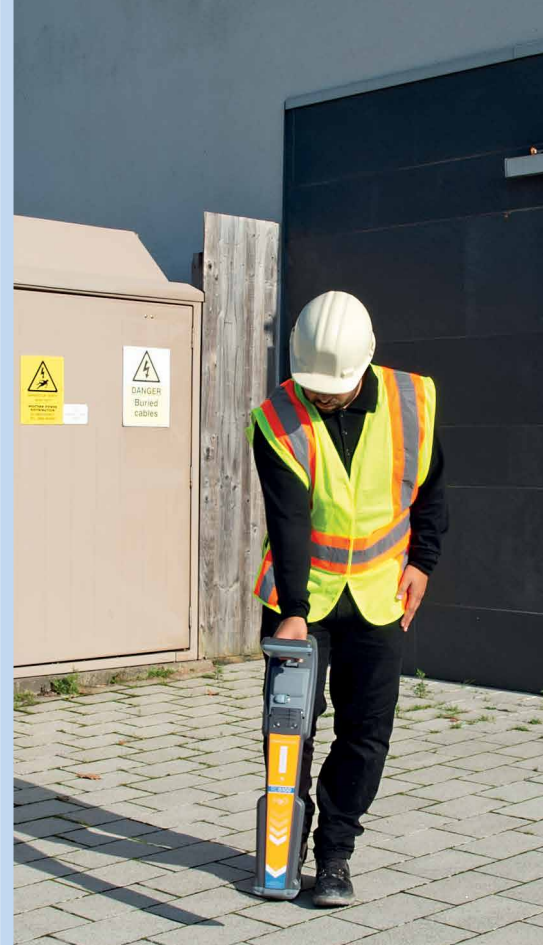
	RD5100H2O	RD5100S	RD5100H2O+
<b>Active frequencies</b>			
512/640Hz		●	
4kHz CD <sup>1</sup>			✓
8kHz		●	✓
9.8kHz			✓
33kHz		●	✓
65kHz		●	✓
83kHz	✓		✓
131kHz			✓
200kHz			✓
<b>Passive frequencies</b>			
Power	✓		✓
Radio			✓
<b>Sonde frequencies</b>			
512/640Hz		✓	✓
8k		✓	✓
33k		✓	✓
<b>Transmitter</b>			
1W	✓		
10W			✓
iLOC remote control of transmitter			✓
<b>Features</b>			
Guidance Mode	✓ (83kHz)	✓	✓
Setting to turn off Target Position Indicator in Guidance mode			✓
Peak+ Mode with Guidance Arrows		✓	
Power mode with depth	✓		✓
Gain for Power mode with depth	✓		✓
StrikeAlert™			✓
Rechargeable batteries (Li-Ion)	✓	■	■
3 year warranty	✓	✓	✓

✓ Standard feature

● Option, can be purchased later (requires return to service center)

■ Option

<sup>1</sup>CD= Current Direction (see operation manual for details)



## Dynamic Overload Protection

Filters out interference, enabling use in electrically noisy environments such as near substations or overhead power lines.



## CD (Current Direction)

Identify your target amongst a number of parallel utilities. CD arrows confirm you are tracing your target line.



Visit [www.radiodetection.com](http://www.radiodetection.com)

## Global locations

### Radiodetection (USA)

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Radiodetection is a leading global developer and supplier of test equipment used by utility companies to help install, protect and maintain their infrastructure networks.