

**RADIODETECTION** 

# Identify cables, pipes and RF markers with one locator



Radiodetection's range  
of precision cable, pipe  
and RF marker locators



**SPX** 

# Quickly and accurately locate RF markers and buried utilities simultaneously

RD8100 and RD7100 RF marker locators are designed for locate professionals who need to detect RF markers and buried utilities.

## Precision cable, pipe and RF marker locator combined into one

This means operators only require one piece of equipment, saving time, cost and hassle.

## Simultaneous RF marker and line locate mode

All RF marker locator models offer a combined line and marker locate mode with automatic marker depth measurement, which enables the operator to do their job quicker without compromising on quality.

## RF markers

RF (Radio Frequency) markers are used to identify the location of difficult to locate utility services, such as plastic pipes, fiber optic cables or critical points in dense networks. They are generally located directly on top of the utility they are marking.

RF markers are also referred to as marker balls, utility markers, Electronic Marker System (EMS) or Omni Markers™.

## Extended Warranty

Warranty can be extended to 3 years by registering the equipment on the Radiodetection portal.

## Ergonomic design

Radiodetection's RF marker locators are light weight (4.6lbs/2.1kg), exceptionally well balanced and comfortable for extended periods of use.



- Light, quick to set up and easy to use
- Fast and precise locating
- Alerts and warnings for safer on-site operations
- Rugged, shock resistant, all-weather instrument
- Premium quality, designed and made in the UK

# Achieving more with your Radiodetection precision locating system

## RD7100 & RD8100 RF marker locators

### Choose the optimum mode for your locate

Whether the priority is to locate RF markers as accurately as possible, locate a deeper signal, mark a utility or rapidly trace a line, our antenna modes give the operator the ability to optimise the locator for their specific requirements, all at the touch of a button.

### Boost confidence

Continuous depth estimation and current measurement give confidence the correct line is being followed.



### Identify one or more signal sources

Power lines carrying a strong signal or buried closely together can create a broad wash of signal, which limits the ability to determine if there are one or more power lines. With a single key press, Power Filters™ enables you to establish if a signal comes from one source, or from multiple power lines.

### Fault Find

Combine the RF locator with an A-frame to identify and pinpoint insulation sheath faults on cables to within 10cm/4".

### Stay connected

Bluetooth connectivity as standard for RF marker locators to interface to external devices and GIS systems.

Integrated GPS option provides an easy interface to mapping databases and survey validation.



### Easy calibration & maintenance

Set-up, calibrate and update your locator from a PC with RD Manager PC software. Download usage logging and survey measurement data for analysis.

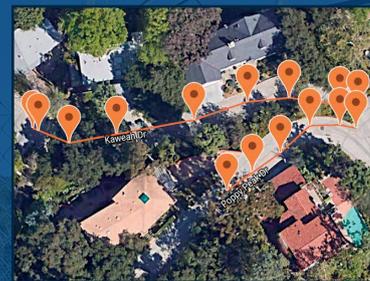
### Filter out the noise

Dynamic overload protection automatically filters out interference in electrically noisy environments such as near substations or overhead power lines, reducing inaccurate locates.

### Map buried utilities and view on Google

Create detailed (CSV or KML) utility maps in real time\* and share them directly from the field with customers or colleagues, using the free RD Maps™ android app.

\*Requires data connectivity and availability of Google Maps.



### Reduce the risk of strikes

StrikeAlert™ provides visual and audio warnings of shallow utilities.

# Make complex locates easier

RD8100 RF marker locator only

**The RD8100 RF marker and buried utility locator is our most capable and advanced model, optimised for complex situations.**

## Follow the right line

When locating in a congested area where multiple lines carry a signal, CD (Current Direction) arrow gives you a positive indication you are locating the correct line.

## Easily adapt to changing conditions

When carrying out a locate, conditions can change which require the technician to switch between higher and lower frequencies (e.g. when transitioning between main lines and service lines). With iLOC, you can change the frequency or power output on your transmitter from up to 1400' / 450m away.

## Customize the locator to your network frequencies

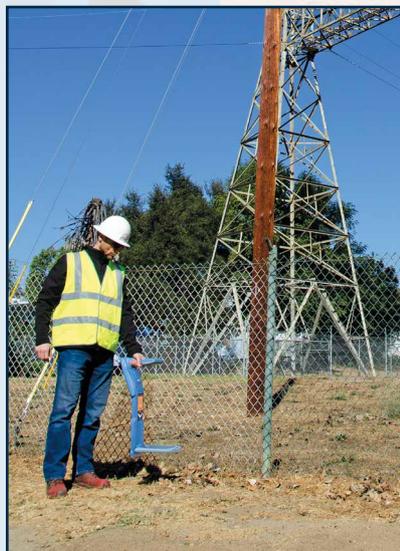
Up to 5 additional frequencies (<1kHz) can be programmed into all RD8100M locators to match it to the signals found on your target telecoms networks.

## Trace high-impedance utilities with 4 kHz

The 4 kHz locate frequency enables lines such as twisted pair telecoms or street lighting to be traced over longer distances. Since such utilities are often found in areas of dense infrastructure, you can combine 4 kHz with CD to improve trace accuracy.

## Check before excavating

Rapidly check an area before excavation using Passive Avoidance Mode, a simultaneous detection of Power and Radio signals carried on underground cables or pipes.



## Reliable depth readings

Depth readings are only given when the RD8100M is correctly oriented, so you can be confident in the result.

## Evade interference

SideStep™ adjusts frequency slightly, enabling locates in areas prone to interference or where more than one operator is working.

## High sensitivity

Sophisticated circuitry enables operators to detect and react to the weak signals associated with difficult to locate utilities.

# Transmitters



Using a transmitter is essential to identify and trace buried utilities, as it puts the operator in control.

## Key transmitter features

- 3 versions: 5 Watt, 10 Watt and 10 Watt with Bluetooth
- Fault Finding
- Current Direction Fault Find, for long distance fault finding (RD8100)
- Multiple CD paired frequencies (RD8100; model dependent)
- 90V Output to detect deeper and further on high impedance lines
- 256Hz to 200kHz active frequency range
- 8 induction frequencies
- Selectable modes support specific model locator frequency ranges (Tx-10B required for PTLM models)
- iLOC (with Tx-10B)
- SideStep<sup>auto</sup>
- Multimeter function, to quickly measure line voltage, current and impedance.



# Choosing the right model

The RF marker functionality on the RD7100 and RD8100 RF marker locators is identical, the difference lies in the utility locate functionality. The RD7100 RF marker locator is our no compromise locator for every day locating and tracing, optimised for specific industries. The RD8100 RF marker locator is our most advanced locator and is suitable for more complex situations.

MODEL:	RD7100 MARKER LOCATOR			RD8100 MARKER LOCATOR			
	DLM	PLM	TLM	PXLM	PDLM	PDLMG	PTLMG
Active Locate Frequencies	6	5	7	17	18	18	25
Antenna Modes	3	4	4	5	5	5	5
RF Utility Marker Frequencies	9	9	9	9	9	9	9
Combined locate mode ‡	✓	✓	✓	✓	✓	✓	✓
Sonde Frequencies	4	1	3	4	4	4	4
Passive Modes	3	2	2	2	5	5	5
On-board GPS						✓	✓
Power Filters		✓		✓	✓	✓	✓
Usage-Logging		✓	✓			✓	✓
CALSafe™	■	■	■	■	■	■	■
4 kHz					4k+CD	4k+CD	4k+CD
Current Direction					✓	✓	✓
Fault Find		✓	✓		✓	✓	✓
Depth in Power		✓			✓	✓	✓
Passive Avoidance					✓	✓	✓
iLOC / RD Map	✓	✓	✓	✓	✓	✓	✓
Lithium-Ion Battery	✓	✓	✓	✓	✓	✓	✓
3 year warranty on registration*	✓	✓	✓	✓	✓	✓	✓

TRANSMITTERS	Tx-5	Tx-10	Tx-10 B
Max. Output Power	5W	10W	10W
Active Frequencies	16	16	36
Induction frequencies	8	8	8
Current Direction Frequencies		6	14
iLOC remote control			✓
Fault Find	✓	✓	✓
Induction field strength	0.85	1	1
Eco Mode	■	■	■
Lithium-Ion Battery	●	●	●
3 year warranty on registration*	✓	✓	✓

## RF MARKERS

Utility type	Color	Frequency
French Power	 Natural	40.0kHz
General Non-drinkable water	 Purple	66.35kHz
Cable TV	 Black/Orange	77.0kHz
Gas	 Yellow	83.0kHz
Gas marker tape*	 CAUTION BURIED GAS PIPE	59.9kHz
Telephone/Telecoms	 Orange	101.4kHz
Sanitary	 Green	121.6kHz
Euro Power	 Blue/Red	134.0kHz
Water	 Blue	145.7kHz
Electrical Power	 Red	169.8kHz

‡ Locates marker balls and cables & pipes simultaneously

\*Locators and transmitters only. Does not include battery packs and accessories.

✓ Available, enabled by default ● Option ■ Available, disabled by default. Download the full Product Specifications at

[www.radiodetection.com/RD8100](http://www.radiodetection.com/RD8100) or [www.radiodetection.com/RD7100](http://www.radiodetection.com/RD7100)

\*Depth is not available when detecting the 59.9 kHz tape

Light weight and ergonomic design for comfortable use

High contrast screen provides clarity even in bright sunlight



**Built for on-site use – IP65**

Shock resistant, ingress protected casing protects against knocks, drops, water and dust



**Precision by design**

A unique arrangement of five custom manufactured, precision ground antennas deliver locate accuracy and repeatability



Accessory base tray



**Locate over longer distances**

90V signal output and automatic impedance matching



**RD Map™ app**

Create detailed maps of buried utilities in real time\*



**Li-Ion battery pack**

Lithium-Ion rechargeable battery pack options for both locator and transmitter provide extended runtime with reduced running costs.



**GPS and Usage-Logging Integrated**

GPS and automatic usage-logging for allow managers to review locate history to ensure compliance with best practice (RD8100M).



**iLOC**

Save time on site by controlling your transmitter from distances of up to 1400 feet / 450 meters with Tx-10B.

## Our Mission

Provide best in class equipment and solutions, to prevent damage to critical infrastructure, manage assets and protect lives.

## Our Vision

To be the world's leader in the management of critical infrastructure and utilities.

## Our locations



### USA

Raymond, ME  
Kearneysville, WV

### Canada

Vaughan, ON  
Mississauga, ON



### Europe

United Kingdom **HQ**  
France  
Germany  
The Netherlands



### Asia Pacific

India  
China  
Hong Kong  
Indonesia  
Australia

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