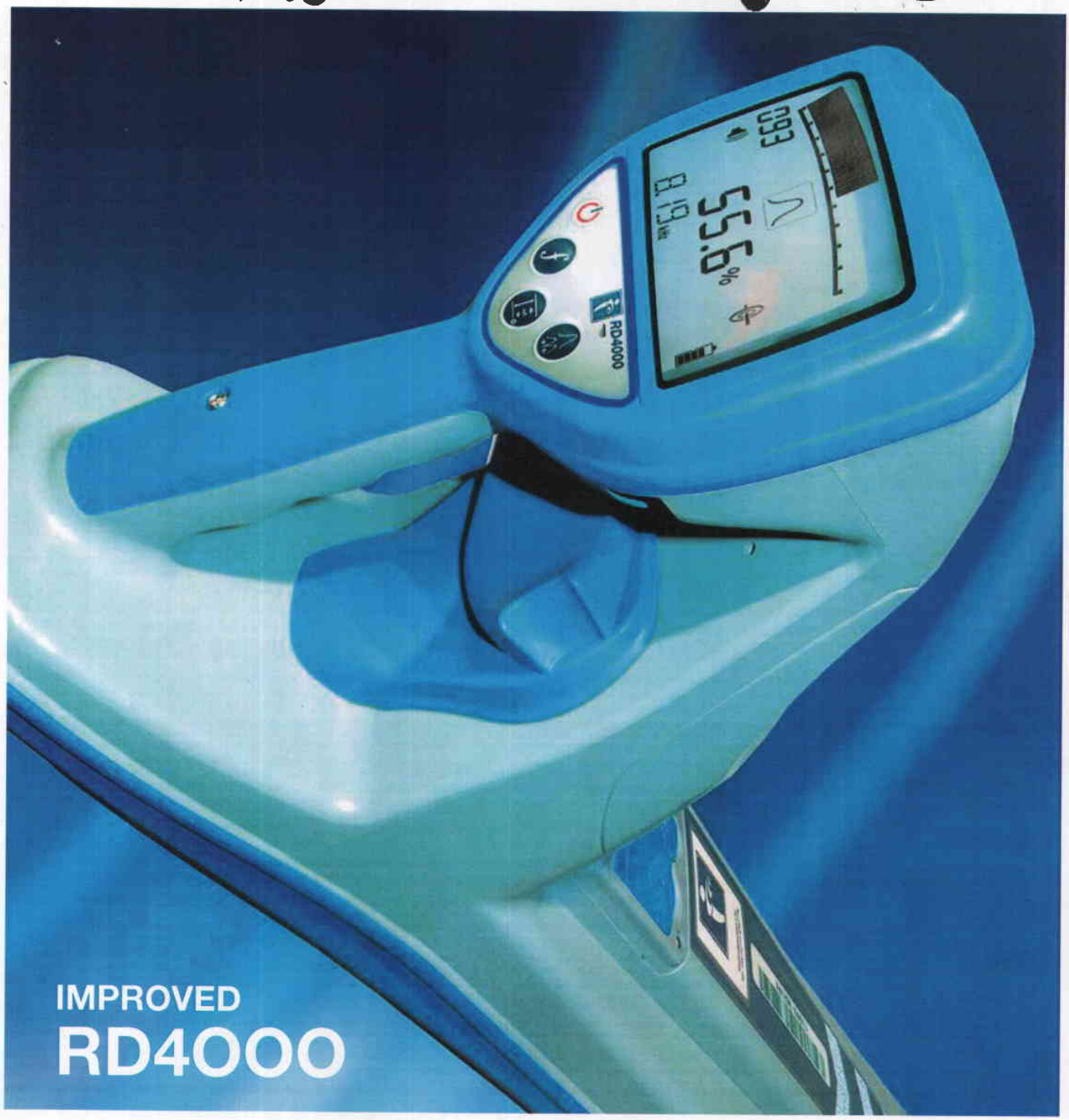
01	EA	Cable Detector - RD 4000 " As per attached Technical Data " * Original Material * ** Urgent **

H.Q.C. MR-12835 # Item (2)



Best in class advanced pipe and cable location

Radiodetection

Highest performance

High sensitivity and selectivity delivers precision locate even in congested areas

Powerful functions

Multiple frequencies, 3 antenna modes, depth and current direction give precision location of underground utilities

Ease of use

Ergonomic design, large clear display, positive keypad and gain control paddle

Extended capabilities

Large range of support accessories to grow with users' needs

RD4000

Best in class high-end pipe and cable location

The Radiodetection RD4000 cable and pipe locator is widely seen as the industry standard, with the highest locate performance, multiple locate modes and simplicity of use. Whether locating utilities and marking for construction, mapping or fault finding. The RD4000 series is the product against which all others are measured.

RD4000 delivers best in class location:

- **Highest performance digital Receiver even in the presence of interference**
- **Fast, clear, positive response even in congested areas**
- **Multiple active frequencies and modes provides sophisticated location tools**
- **Peak, null and single antenna modes**
- **Location and depth measurement**
- **Current measurement to identify individual networks**
- **Real Sound; helps distinguish the signal from random background noise**
- **High output Transmitters to locate deep utilities, long lengths and handle complex locates**
- **Fault finding and cable and pipe integrity measurement**
- **Current direction – RD patented**
- **MRx option for simultaneous locate of utility marker balls**
- **Extended warranty**

Properly locating buried utilities can avoid costly outages and avoid major hazards associated with inadvertent contact during excavation. While it is important to utilize the best products available, it is equally as important to adhere to the best and safest practices to assure a safe and productive job site. Radiodetection, the world leader in the design and manufacture of underground locating equipment, provides equipment and practices needed to assure optimum accuracy and safety for every locate scenario.

Highest performance

The RD4000 utilizes a powerful, advanced digital measurement and processing system that is far ahead of any others. The patented signal-processing algorithm provides improved performance and accurate results, even in the most congested of areas. Users will quickly discover that the RD4000 always delivers repeatable accurate locates, even in the most difficult of circumstances.

Multiple modes

RD4000 models are available to address the specific needs of various sectors. Increasingly, companies are outsourcing mark before dig and utility mapping. Recognizing that there is no single location mode or frequency guaranteed to locate a given pipe or cable, RD4000 has options to optimize the location task. Whatever the location requirement there is an RD4000 solution.

Ease of use

Repeatability and ease of use is delivered through the ergonomic design and features of the RD4000. A large, clear, automatically back-lit LCD display and a highly responsive gain paddle give users of all levels an unmatched confidence in their RD4000 locator. It is through attention to detail that Radiodetection have delivered a powerful and sophisticated tool that is simple to use.

Extended capabilities

The RD4000 family of locators is supported by a wide range of plug-and-play accessories, such as fault locating A-Frames for locating cable sheath faults or pipe coating defects, receiver clamps and stethoscopes for cable identification. RD4000 receivers provide seamless integration with most GPS receivers and data recording devices, making the RD4000 perfect for both novice and advanced users.

Industry's most sensitive locator

5E^{-15} Tesla

Large dynamic range and exceptional selectivity

140dB

Delivers best in class performance

Powerful DSP platform and advanced algorithms

RD4000 TECHNICAL SPECIFICATION			LOCATING DEPTH GUIDE 10mA active locate signal - typical locate depths
SENSITIVITY AT SPOT FREQUENCIES ACTIVE frequencies at 8Hz b/w Refer to configuration for available frequencies	**FREQUENCY**	**SENSITIVITY @ 1m**	**GOOD CONDITIONS**
	50Hz or 60Hz	2 mA	3 m (10ft)
	15 - 30kHz	25 µA	3 m (10ft)
	512Hz or 640Hz	50 µA	5 m (16ft)
	8kHz	5 µA	5 m (16ft)
	33kHz	5 µA	5 m (16ft)
	65kHz	6 µA	5 m (16ft)
	131kHz	6 µA	5 m (16ft)
	200kHz	8 µA	5 m (16ft)
	CD pairs	50 µA	5 m (16ft)
CURRENT READING	± 5% Active signal bw limited		
FAULT FINDING	Diagnose faults from s/c to 2M ohm		
LOCATE QUALITY	**Dynamic Range** 140dB@10Hz bandwith **Selectivity** 120dB/Hz up to 200kHz **Sensitivity** 5E^{-15} Tesla (32,768Hz, 1Hz b/w)		
LOCATE ACCURACY	**±5% of depth, good condition** Depth acheivable dependent upon signal current on line Note greater depth means broader peak response		
DEPTH ACCURACY on undistorted signal	**Line ± 2.5% 0.1 m to 3 m (4in to 10 ft)** **Sonde ± 2.5% 0.1 m to 7 m (4in to 16 ft)**		
BATTERIES	4 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 as standard	Further 12 months at no extra charge on return of warranty card Additional 12 months warranty - chargeable option		
EMS Tranceiver MRx option	Range to standard marker balls to 2m (6ft); 5m (16ft) on deep marker disks Dual mode line locate and marker locate		
External data logging	For report generation and support		
ANTENNA MODES			
PEAK	Standard locate mode - all purpose locate		
NULL	L and R arrows for simple locate		
SINGLE	Highest sensitivity - for location of deep targets		
FAULT FINDING ON PDL			
	With the A frame accessory and three fault finding methods, RD4000PDL accurately locates cable sheath and pipe coating faults typically up to 2M ohm impedance		
8kFF	Ideal for cable sheath faults. High voltage to locate high impedance. 8kHz locate signal		
LFFF	4Hz/8Hz good for finding coating faults on pipelines		
CDFF	640Hz/320Hz (512Hz/256Hz) good distance locate of pipeline coating faults 640Hz (512Hz) simultaneous locate signal		

SIMPLE
4 key interface for minimum training and ease of use

SIMULTANEOUS
1 button depth and current measurement

AUTO BACKLIGHT
For low light operation

MULTI-SIGNAL RESPONSE
Single and dual peak, null left and right arrows

HIGH RESOLUTION
Signal strength meter for pin-point precision

INSTANTANEOUS
1 touch gain control

WEATHER SEALED
RS232 earphone and accessory ports for data logging and software upgrades

'REAL'
Non synthesized sound, giving more information about the utility being located

CHOICE OF BATTERIES
Dry cells or rechargeable options

ENGINEERED PLASTICS
Ergonomic, robust and all weather housing

MRx Option

RECEIVERS

RD4000SL - Standard Locate
- Power, Radio & 1 active frequency

RD4000DL - Drain Locator
- Power, Radio & active locate of sondes

RD4000PXL - Multi f locator
- Multi-utility location
- Additional frequencies including CPS and high f
- Enhanced location accessories
- Current display

RD4000PDL - Multi-frequency, Fault find & CD
- Highest locate performance with multi-frequency incl. CPS
- Advanced fault find
- Enhanced location accessories
- Additional frequencies available
- Current display
- Current direction

TRANSMITTERS

RD4000 T1
- 1 watt entry-level transmitter
- 3 locate and 2 induction frequencies

RD4000 T3
- Cost effective 3 watt transmitter
- 3 locate frequencies
- 1 induction frequency

RD4000 T3F
- All features of T3 (above)
- 8kHz fault find codes

RD T10
- 10 watts output power
- Multi-meter functions for checking cable/pipe integrity
- Up to 16 locate frequencies
- 2 induction frequencies
- Fault find signals
- Current direction signals
- Pipeline integrity signals

- Rechargeable option and external 12v dc supply available for T3/T10 transmitters
- Various clamp and connectors available as accessories

T10 shown

AUTO BACKLIGHT
FOR LOW LIGHT OPERATION

ERGONOMIC
ROBUST CASE

EFFICIENT
INDUCTION

EXTERNAL 12V D.C. SUPPLY

Direct connection output protected against inadvertent connection to AC voltages up to 250v