

RD400PDL-2 Precision Locator

Technical Specification

Description RD400PDL-2 Precision buried cable and pipe locator.

Part No. 10/RD400PDL2 (followed by variant suffix).
Some variants may not provide all of the modes and features listed below.

Physical

Construction High impact thermoplastic weatherproof to NEMA 3R and IP54.

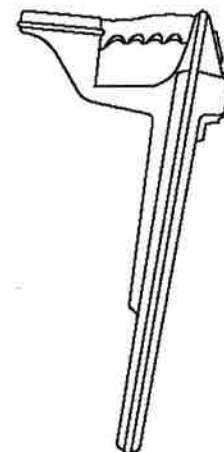
Ruggedness Withstands 1 m (3 ft) drops onto concrete.

Dimensions 60.5 x 29 x 13.5 cm (24 x 11.5 x 5.3 in).

Shipping Box Size 63.5 x 35.5 x 14.6 cm (25 x 14 x 5.5 in).

Weight 2.2 kg (4.8 lb).

Shipping Weight 3.6 kg (7.9 lb).



Operating Modes

Mode	Frequency	Sensitivity @ 1 m	Locating Depth Guide (m/yds)	
			Good Conditions	Poor Conditions
Power	30 Hz-500 Hz	20 mA	3	2
Radio	14-26 kHz	30 μ A	2	1
CD	640 Hz or 320 Hz	250 μ A	5	2
8	8.192 kHz	100 μ A	5	2
33	32.768 kHz	30 μ A	5	2
65	65.536 kHz	30 μ A	5	2
Lf	512 Hz or 640 Hz	250 μ A	5	2
fa	200.000 kHz	50 μ A	5	2
fb	User defined	--	--	--
CPS	100 Hz or 120 Hz	20 mA	3	2
FF	8 Hz and 8 kHz	1 M Ω	5	2

Locate Accuracy: $\pm 5\%$ of depth.

Current Accuracy: $\pm 5\%$ of actual current.

Depth Accuracy: $\pm 5\%$ of depth on undistorted signal with no adjacent signals.

Depth Range: Line - 3 m (10 ft) $\pm 5\%$.
Sonde - 8 m (26.2 ft) $\pm 5\%$ dependent on sonde.



Visual Indication	Two section Liquid Crystal Display indicating the following:
	Signal Strength (%) Line Depth Sonde Depth
	Induced Current Current Direction Gain Level
	Operating Mode Line/Sonde Mode Peak/Null Mode
	Left/Right Arrows Battery Status Speaker Volume
	Backlight On

Audio Indication	Audio signal output through waterproof loudspeaker. Use of optional headphones disables loudspeaker output.
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Search Antennas	2 x symmetrical response for Peak operation. 1 x vertical antenna for Null operation.
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Gain Control	Up/Down keys on fascia.
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Batteries	12 x LR6 (AA) 1.5 V alkaline. 20 hours life, nominal @ 20°C (68°F) intermittent use.
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Operating Temperature Range	-20°C to +50°C (-4°F to +122°F).
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Miscellaneous

Options	Accessory Socket, Backlight, Stethoscope, Antenna Clamp, Extended Range Antenna, Submersible Antenna, Sondes, Rechargeable Batteries.
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Compatibility	Recommended Radiodetection Transmitters: RD400LCTx, RD400HPTx, RD433HCTx, RD433HCTx-2.
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Quality Control	BS5750/ISO 9001/EN29001.
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Warranty	12 months.
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RD433HCTx-2 High Power Transmitter

Technical Specification

Description RD433HCTx-2 High power transmitter.

Part No. 10/RD400HCTX-2.

Physical

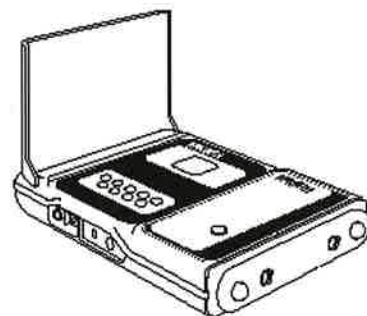
Construction High impact thermo plastic injection moulding, weatherproof to NEMA 3R and IP54.

Dimensions 37 x 22.5 x 7 cm (14.5 x 8.9 x 2.8 in).

Shipping Box Size 49 x 39 x 24 cm (19.3 x 15.4 x 9.5 in).

Weight 4 kg (8.8 lb).

Shipping Weight 4.5 kg (9.9 lb).



Operating Modes

Mode	Frequency (± 3 Hz)	Output Options
FF	8.192 kHz/8.192 Hz composite signal	Direct connection
CD	200-700 Hz	Direct connection
Lf	400-700 Hz	Direct connection
8 kHz	8.192 kHz (key frequency)	Direct connection, induction
33 kHz	32.768 kHz (key frequency)	Direct connection, induction
65 kHz	65.536 kHz (key frequency)	Direct connection, induction
200kHz	200.0008719 kHz (key frequency)	Direct connection, induction
User Hz	153 Hz, 531.25 Hz, 577.5 Hz, 1.09 kHz, 1.45 kHz, 8.5 kHz, 8.966 kHz, 9.82 kHz, 39.2 kHz, 83.075 kHz	Direct connection
Multi	Combination of key frequencies	Direct connection

Measuring Functions	Function	Description	Range (Resolution)
	Amps	Output current (mA)	0-200 mA (1 mA), 200-300 mA (2 mA)
	Output Volts	Output voltage (V)	0-50 V (1 V)
	Line Volts	Voltage on line (V)	0-50 V (1 V), 50-100 V (25 V)
	Impedance	ac resistance at transmitted frequency	0-10 k Ω (1 Ω -1 k Ω)
	Line Resistance	Auto ranging	0-2 k Ω (20 Ω), 2-20 k Ω (200 Ω), 20-200 k Ω (2 k Ω), 200 k-200 M Ω (20 k Ω)

Audio Indication	Three level settings -	Off, Low, High.
	Transmitter On -	Slow pulsing tone.
	Good connection -	Increased pulse rate.
	Low battery -	1 second on, 0.1 second off.



Radiodetection

Visual Indication 56 x 56 mm transfective LCD displays the following:

3½ digit numerical display - indicates output current (default mode), induction level, output voltage/line voltage, ac impedance/dc resistance according to selection with A.V.O. and Line keys.

Four level output demand legend, indicates desired current or induction level.

Three level audio volume indicator.

Four level battery status indicator - flashes when battery low.

Bulb symbol - indicates backlight is on.

Miscellaneous symbols - mA, V, Hz, k, Ω and %.

Output Protection Output circuitry is protected against inadvertent connection to 100 V rms. Sustained voltages above 100 V will cause an external fuse to blow.

Signal Continuous sine wave. 8 seconds on, 2 off indicates low battery.

Performance

Connection Performance	Output levels	Open Circuit Voltage	Limit Current	Max Power
	4	50 V/24 V	300 mA	5 W
	3	50 V/24 V	100 mA	5 W
	2	50 V/24 V	30 mA	1.5 W
	1	50 V/24 V	10 mA	0.5 W

Induction Performance	Output levels*	Field Strength (dB μ V/m @ 3 m)			Equivalent Current (10R cable @ 0.5 m)		
		8 kHz	33 kHz	65 kHz	8 kHz	33 kHz	65 kHz
	100%	130.5	119	113	3.4 mA	4.4 mA	4.7 mA

* Output level available in four steps; 25%, 50%, 75%, 100%.

Batteries 8 x LR20 (D) 1.5 V alkaline.
20 hours life @ nominal power, 4 hours @ maximum power.
Socket provides 12 V external power input facility.

Operating Temperature Range Normal: 0°C to +50°C (+32°F to +122°F).
Maximum: -20°C to +70°C (-4°F to +158°F).

Miscellaneous

Options Signal Clamps (2, 4, 8.5 and 15.5 in)

Compatibility Recommended Radiodetection Receivers: RD400PXL-2, RD400PDL-2.

Approvals ISO 9001/BS5750/EN29001. Complies with FCC requirements

Warranty 12 months.

