

# EM34-3

The EM34-3 is a fast, simple to operate, cost-effective instrument for the engineering geophysicist, geologist and hydrogeologist alike and has been particularly successful for mapping deeper groundwater contaminant plumes and for groundwater exploration.

Using the same patented inductive method as the EM31, the EM34-3 uses 3 intercoil spacings to give variable depths of exploration down to 60 metres. With the 3 spacings and 2 dipole modes (horizontal as shown, and vertical), vertical electrical soundings can be obtained. In the vertical dipole (horizontal coplanar) mode the EM34-3 is very sensitive to vertical geological anomalies and is widely used for groundwater exploration in fractured, faulted and weathered bedrock zones.



In regions of particularly high cultural and atmospheric noise, the higher powered EM34-3XL improves the signal to noise ratio by a factor of 10 at the 40 m spacing and by 4 at the 10 m and 20 m spacings.

The EM34-3 comes complete with an output connector for digital data logging with the DL720 as well as input ports which can be used with a rechargeable battery option. Real-Time logging is available as an option for both the EM34-3 and EM34-3XL.

## Specifications

<b>MEASURED QUANTITIES</b>	Apparent conductivity in millisiemens per metre (mS/m)
<b>PRIMARY FIELD SOURCE</b>	Self-contained dipole transmitter
<b>SENSOR</b>	Self-contained dipole receiver
<b>REFERENCE CABLE</b>	Lightweight, 2 wire shielded cable
<b>INTERCOIL SPACINGS &amp; OPERATING FREQUENCIES</b>	10 m at 6.4 kHz 20 m at 1.6 kHz 40 m at 0.4 kHz
<b>POWER SUPPLY</b>	Transmitter: 8 disposable or rechargeable "D" cells Receiver: 8 disposable or rechargeable "C" cells
<b>CONDUCTIVITY RANGES</b>	10, 100, 1000 ms/m
<b>MEASUREMENT RESOLUTION</b>	0.1 % of full scale
<b>MEASUREMENT ACCURACY</b>	±5 % at 20 mS/m
<b>NOISE LEVELS</b>	0.2 mS/m, can be greater in regions of high power line interference
<b>DIMENSIONS</b>	Receiver Console: 19 x 13.5 x 26 cm Transmitter Console: 155 x 8 x 26 cm Receiver & Transmitter Coil: 63 cm diameter EM34-3XL Transmitter Coil: 100 cm Shipping Case: 27.5 x 75 x 75 cm
<b>WEIGHTS</b>	Instrument complete: 20.5 kg Shipping: 43 kg

## Exclusively Sold and Serviced in Australia by:

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