

WalkTEM 2

TRANSIENT ELECTROMAGNETICS (TEM)

Groundwater, Minerals & Environmental Survey

Technical Specification

The ABEM WalkTEM 2 is a user-friendly, rapid survey solution that can provide precise resistivity models directly in the field for the search, mapping and monitoring of groundwater, mineral deposits, and environmental change. The system is scalable, with modular hardware, which allows expansion of the instrument capabilities to keep up with your changing needs.



SYSTEM COFNIGURATIONS	TX-8*	TX-8*	TX-20*	TX-60
TX min. / max. output current	1 Amp / 8 Amps	1 Amp / 8 Amps	1 Amp / 20 Amps	7 Amps / 60 Amps
Number of RX channels	1	2	2	2
Onboard inversion	No	Yes	Yes	Yes
Compatible TX Loops	20 x 20 m, 40 x 40 m	All loops	All loops	All loops
Compatible RX Coils	RC-5 only	RC-5 & RC-200	RC-5 & RC-200	RC-5 & RC-200
Dual moment	Yes	Yes	Yes	No
Waveform recording & analysis	Optional	Yes	Yes	Yes
Damping resistor selector tool	Optional	Yes	Yes	Yes
Internal damping resistor array	Yes	Yes	Yes	No
Auto-repetition for monitoring	Yes	Yes	Yes	Yes

RX Standard +

RX ∆dvanced ±

RX Advanced +

RX Advanced +

RX UNITS

Gates/Windows Up to 200 Sample rate 1 MHz per channel 170 dB system, 140 dB Dynamic range instantaneously Stacking/Cycles 1 to 65,536 in single steps Automatic selection based on Calibration values configuration

Onboard computer Intel Pentium N4200 or better Internal ram Minimum 4GB

Hard disk capacity Solid state disk (SSD) 100 GB

or greater

Operation system Windows 10

8.4" Active TFT LCD, 800x600, Display full colour, daylight visible, 6mm

shatterproof screen

I/O ports & interfaces 1x KPT19 for RX-TX synchronization

2x KPT19 for receiver antennas

1x Gigabit Ethernet 2x USB 3.0 ports WiFi with built-in antenna

GPS receiver Built-in GPS

Service point & upgrades Via internet connection

TX UNITS

Pulse on / off times 1 ms to 500 ms, in 1µs steps

Repetition rate 500 Hz to 0.5 Hz

10 % - 50 % pre-loaded scripts, fully Duty cycle

customizable

Upgrades Via internet connection (TX-8 / TX-20)

RECEIVER COILS

Active magnetic receiver coil (rigid)

Bandwidth 450kHz

Effective area / dimensions 5 m² (20 turns) / 59 cm x 59 cm x 9 cm

RC-200 Active magnetic receiver coil (flexible) Bandwidth

100kHz

 200 m^2 (2 turns) / 10 x 10 mEffective area / dimensions

TRANSMITTER LOOPS

TL-400 Single turn flexible transmitter loop Effective area / dimensions 400 m² / 20 m x 20 m x 2.5 mm²

TI-1k6

Single turn flexible transmitter loop Effective area / dimensions 1600 m² / 40 m x 40 m x 2.5 mm²

TL-10k HP6

Single turn flexible transmitter loop Effective area / dimensions 10,000 m² / 100 m x 100 m x 6.0 mm²

Single turn flexible transmitter loop Effective area / dimensions $40,000 \text{ m}^2 / 200 \text{ m x } 200 \text{ m x } 6.0 \text{ mm}^2$

PHYSICAL	RX Standard / Advanced	TX-8 / TX-20	TX-60
Housting construction	Rugged ABS/PMMA	Rugged ABS/PMMA	Rugged aluminium casing
IEC protection rating	IP66	IP66	IP66
Ruggedized connectors	Yes	Yes	Yes
Dimensions	39 x 21 x 32 cm	19 x 21 x 32 cm	39 x 21 x 32 cm
Weight	8.3 kg incl. batteries	4.7 kg	14 kg
Internal power	2x 11.25 V, 6.4 Ah batteries Li-Ion, hot-swappable, built-in charger	None	12 V 8 Ah NiMH battery
External power	10-18 V DC	10-34 V DC	24-250 V DC
Cooling	Passive convection	Passive convection	Active (internal fans)

Temperature range

Note 1: Non-Condensing Note 2: LCD performance not guaranteed below 0 °C Note 3: Measurement speeds may be reduced in high ambient temperatures

Storage1: -20 °C to +70 °C Operating^{2, 3}: -20 °C to +60 °C



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