

GEPS-2000

GEOELECTRIC POWER SOUNDER



2500 V – 10 A – 3500 W

Resistivity & IP

Detachable radio/cable operated receiver

8 channels with simultaneous measurement

Up to 10 adjustable IP windows



Applications:

Groundwater explorations in arid and semi-arid areas, deep geological surveys, mineral prospecting, structural studies.

Geoelectric Power Sounder GEPS-2000 is a device for data acquisition and interpretation of deep VES (vertical electrical sounding) as well as for 8 channel profiling (resistivity & IP sections). It can be used for measurement up to 1000 - 2000 m depth allowing both high voltage and high current injection of transmitter current according to real measuring conditions.

The device consists of powerful, overload protected transmitter supplied from two portable electric generators (with total power of 4000 W) and of detachable receiver. The operation is provided from a user's laptop. GEPS-2000 is a made-to-order device its features can be modified.

Measured data from GEPS-2000 acquired from several VES can be assembled into resistivity and IP sections using the interpretation software delivered with the device. Data output from 8 channel profiling is matched with RES2DINV inversion software.

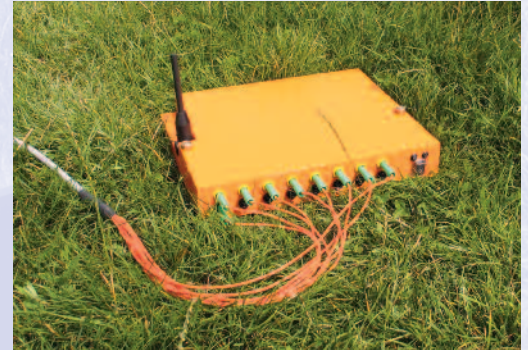
GEPS-2000 - Technical Specifications

Transmitter

Power supply	external engine power generator HONDA 2 x 2000 W
Output Power	up to 3500 W
Current	up to 10 A (24 bit conversion)
Current waveform	square with selectable pulse length and frequency
Pulse	1 s - 60 s, step 1 s
Voltage	up to 2500 V
Precision	0.1%

Receiver

Resistivity, IP, SP measurements	8 (galvanically insulated or coupled)
Number of channels	40 M Ω
Input impedance	± 10 V (24 bit conversion)
Input voltage range	up to 10
Number of IP windows	1 - 64
Stacking	constant and linear
SP compensation	50 Hz
Mains frequency filtering	0.1%
Precision	
Dimensions	700 x 400 x 320 mm
Weight	35 kg
Ambient conditions	-10 to +50 °C weather proof



Supported methods

VES (vertical electric sounding)	
8 channel profiling (pole dipole and other arrays)	
SP - Self Potential	
user defined arrays	
IP - Induced Polarization (Chargeability)	up to 10 adjustable IP-windows, each max. 6 s, step 20 ms
Measurement optimization	adjustable optimum measured potential
Stored values	position of the measured point, output current, output voltage, input voltage, SP, apparent resistivity, standard deviation, chargeability with standard deviation for all 10 IP windows
Output data format	IPI2-WIN, RES2DINV, Surfer or simple ASCII file which is available to be opened in other software

Control unit

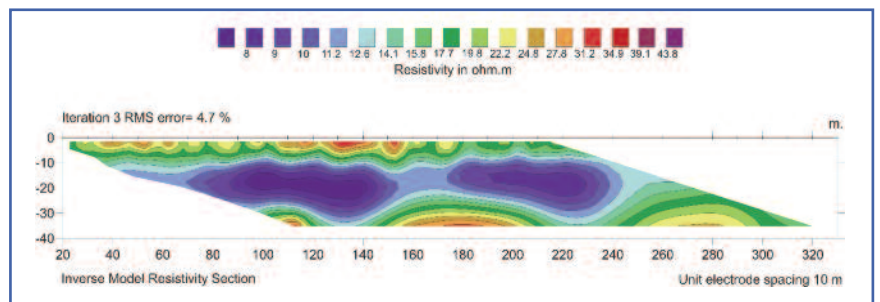
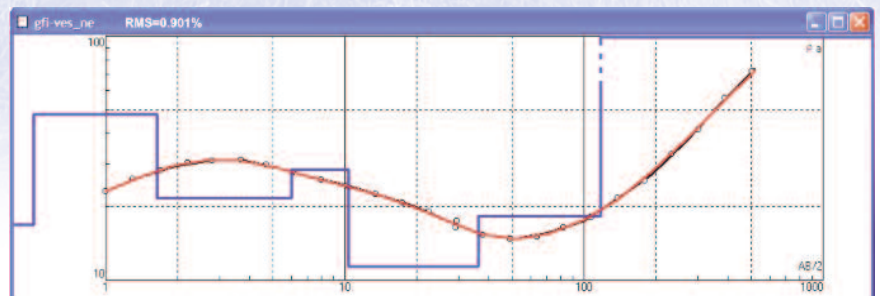
external laptop (MS WINDOWS) connected with USB cable

Standard Accessories:

- GEPS-2000 transmitter with detachable receiver
- engine power generators (2 pcs)
- connection cables
- measuring software
- interpretation software IPI2-WIN
- user manual

Optional accessories:

- measuring current and potential cables on reels
- potential array for 8 channel profiling on reel
- measuring electrodes
- inversion and mapping software (RES2DINV, Surfer)



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