

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.

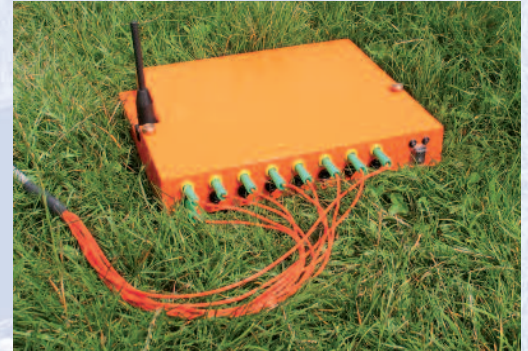
GEPS-2000 - Technical Specifications

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	
Number of channels	8 (galvanically insulated or coupled)
Input impedance	40 M Ω
Input voltage range	± 10 V (24 bit conversion)
Number of IP windows	up to 10
Stacking	1 - 64
SP compensation	constant and linear
Mains frequency filtering	50 Hz
Precision	0.1%
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)
- Measurement optimization
- Stored values

up to 10 adjustable IP-windows, each max. 6 s, step 20 ms
adjustable optimum measured potential
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
IPI2-WIN, RES2DINV, Surfer or simple ASCII file which is available to be opened in other software

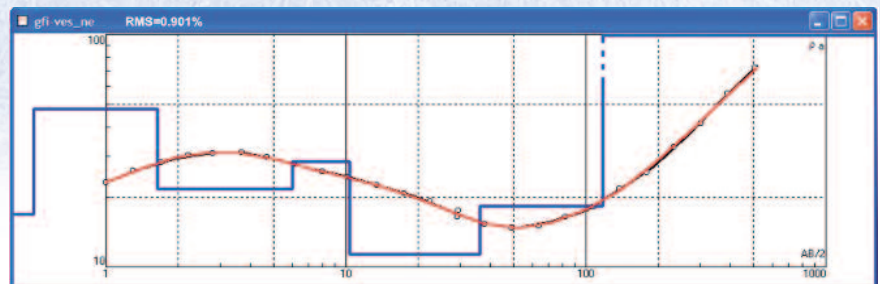
Output data format

Control unit

external laptop (MS WINDOWS) connected with USB cable

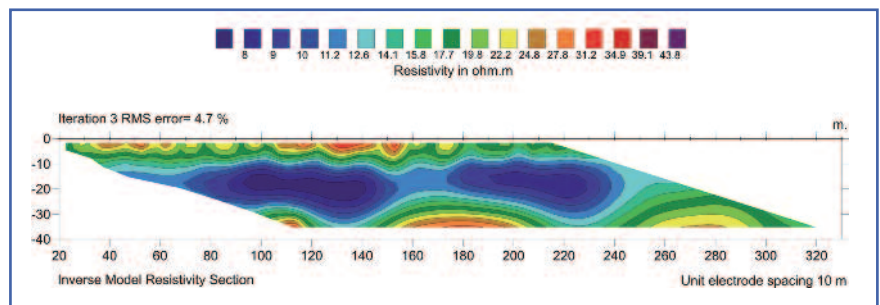
Standard Accessories:

- 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)



Purkyňova 144, 612 00 Brno, Czech Republic
Tel.: +420 549 522 919, 916
Fax: +420 549 522 915
E-mail: info@gfinstruments.cz
www.gfinstruments.cz