Applications:
groundwater exploration, geotechnical investigation, monitoring of dams and dikes, environmental studies, geological survey, mineral prospecting, archaeology, detecting of cavities and buried objects, underwater, marine, borehole and cross-hole measurements.
ARES II Advanced resistivity & IP imaging system equipped with 10 channel receiver convenient for all kinds of geophysical survey. ARES II keeps compatibility with all ARES multi-electrode accessories.

One ruggedized weatherproof unit integrates transmitter with receiver and control unit completed with rich software support for many measuring methods.

**ARES II - Technical Specifications**

**Transmitter**
- Power: up to 850 W
- Current: up to 5 A (24 bit resolution)
- Voltage: 2000 V
- Full electronic protection, energy efficiency up to 91%, passive cooling without ventilation holes

**Receiver**
- Number of channels: 10
- Input voltage range: ±20 V (24 bit resolution), different range optionally
- Input impedance: 20 MΩ
- Mains frequency filtering: 50 or 60 Hz selectable notch filter (140 dB suppression)

**Measuring methods**
- 2D/3D/4D Multi-Electrode Resistivity and IP Tomography
- VES – Vertical Electrical Sounding (resistivity and IP)
- RP – Resistivity and IP Profiling
- SP – Self Potential
- Cross-hole tomography
- Moving applications with GPS

**Supported arrays**
- Wenner Alpha / Beta / Gamma, Wenner-Schlumberger, Dipole-Dipole, Pole-Dipole, Reverse Pole-Dipole, Pole-Pole, Equatorial Dipole-Dipole, Cross-Hole, Borehole-Surface, user defined configurations

**Measurement - features**
- Checking of grounding
- Automatic calibration
- Automatic pulse cycling and checking of measured values
- Easy interruption and continuation of measurement
- Capability of profile prolongation by means of multi-electrode cable roll-along procedure

**Control unit**
- Easy-control system with alphanumerical keyboard and graphic 4.7” high resolution LCD display
- Easy real time horizontal and vertical data consistency checking and data remeasuring
- Real time decay curve on display
- Measuring system can be upgraded via internet
- Safety switch

**Memory**
- 256 MB, 100 files, more than 5 mil. readings

**PC Interface**
- USB

**PC software**
- Provides data download and export for processing programs (RES2DINV / RES3DINV, Surfer, IPI2WIN and others) as well as upload of measuring procedures

**Power supply**
- 12 V car battery or 12 V attachable battery pack, 12 V electronic power supply, AC/DC adapter for office

**Connectors**
- Current and potential sockets, data download (USB and flash disk), GPS, battery
- A universal one for all measuring accessories

**Dimensions**
- 15 x 21 x 40 cm

**Weight**
- 5.9 kg

**Ambient conditions**
- -10°C to +60°C, weatherproof

**Standard Accessories:**
- Transport case
- T-piece (for connection of multi-electrode cable sections and cables for current and potential electrodes)
- Cable for external 12 V battery (protective)
- VES & profiling adapter II
- AC/DC adapter (for all countries)
- USB cable
- PC software ARES (MS Windows based)
- User manual

**Optional accessories:**
- Multi-electrode cable II sections
- Switch box II (48-line adapter) for passive multi-electrode cables
- T-piece for single channel accessories
- 12 V attachable battery pack with fast 3-stage battery charger
- 12 V electronic power supply
- Cable reels
- Stainless steel electrodes, non-polarizable electrodes
- Processing software for 2D/3D inversion, mapping and VES interpretation
- RS232, Radio, GSM remote control sets

*With reservations for changes*
**ARES II Accessories**

**Advanced active cable set with 48 electrodes - RES4-AACTIVE**

ARES II/1 + 6 pcs of MCS5/R active cables (each with 8 outlets at 5 m spacing, 2 plastic transport boxes, each with 3 cables)

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**Recommended measuring sets for resistivity & IP tomography**

These configured sets are offered at discounted prices.

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**Advanced single channel lightweight system for 2D, 3D, 4D survey with optimized current and potential lines and easy roll-along possibility.**

ARES II/1 main unit offers comfortable enhanced operation with graphic screen as well as possibility of upgrade to 10-channel system.
5-channel advanced active cable set with 72 electrodes - RES5-5CH
ARES II/10 + 9 pcs of ME II/5-5 active cables (each with 8 outlets at 5 m spacing and section switch box, 3 plastic transport boxes, each with 3 cables)

Schematic configuration

5-channel lightweight system for 2D, 3D, 4D survey on longer profiles and for advanced IP measurement equipped with optimized current and potential lines and easy roll-along possibility. This set can be completed with next cable sections up to several hundreds of outlets in one cable line.

10-channel advanced active cable set with 120 electrodes - RES6-10CH
ARES II/10 + 10 pcs of ME II/10-5 active cables (each with 12 outlets at 5 m spacing and section switch box on the reel)

Schematic configuration

Top performance 10-channel system for fast 2D, 3D, 4D survey on longer profiles and for advanced IP measurement equipped with optimized current and potential lines and easy roll-along possibility. This set can be completed with next cable sections up to several hundreds of outlets in one cable line.

Water set - RES8-WATER
ARES II/10 + Switch box II (10 channels, 48 lines)

Example of special water cable on the reel (24 outlets at 2 m spacing, one end sealed, 10 m lead-in part, on the reel).

This set (completed with special water cables - not included in the set price) serves both for water level continuous measurement with GPS positioning and for borehole investigations (borehole-borehole, borehole-surface).
General Accessories

- Battery Pack
- Current Cable Reel
- Potential Cable Reel
- Non-Polarizable Electrode
- Stainless Steel Electrodes
- 12 V Electronic Power Supply
- ARES II Set in Transport Case

Supported Ways of Measurement

- 2D Imaging
- 3D Imaging
- Continuous Survey from Water Level
- Vertical Electrical Sounding
- Borehole-Borehole and Borehole-Surface Surveys
- Programmable 2D/3D Monitoring
Natural Graphite Deposit

IP Section performed above former drift of graphite mine shows position of deposit. Position of the drift as well as rather complicated geological structure are seen from accompanying resistivity section.

Inverse Model Resistivity Section

Unit electrode spacing 4.0 m

Resistivity in ohm.m

IP 3 = 0.04 - 0.06 s

Inverse Model Chargeability Section

Unit electrode spacing 4.0 m

Chargeability in ms (0.1 %)