

## JR-6 / JR-6A DUAL SPEED SPINNER MAGNETOMETERS



The world's most sensitive and accurate instruments for measurement of remanent magnetization of rocks based on classical (non-cryogenic) principle. Two rotation speeds available, the higher one enabling the maximum sensitivity to be reached, and the lower one enabling the soft specimens to be measured. Instruments enable measurement even of very weakly magnetic sedimentary rocks including limestone.

### JR-6 / JR-6A Models

The **JR-6** version is destined for simple measurement of remanent magnetization with manual change of measuring positions of a specimen. According to the accuracy demands, one can measure the specimen in two, four, or six positions.

The **JR-6A (automated)** version is destined for rapid and accurate measurement of remanent magnetization. The specimen is manually only inserted into the specimen holder and the changes of positions in the holder in order to get complete vector are made automatically by the instrument.

### General Description

The **JR-6/JR-6A Spinner Magnetometer** consists of an integrated pick-up and measurement control unit, and a power supply unit. All functions are microprocessor-controlled. The microprocessor controls measurement, carries out digital filtration of the signal, controls and tests the speed of specimen rotation. The JR-6/JR-6A automatically executes tests for erroneous conditions. The measurement process is fully controlled by a PC notebook or desktop.

### Operating Principles

Rock specimen rotates at a constant angular speed in the pick-up unit inside a pair of Helmholtz coils. In the coils an AC voltage is induced whose amplitude and phase depend on magnitude and direction of the remanent magnetization vector.

### Typical JR-6 / JR-6A Applications

**Palaeomagnetism:** The changes of Earth's magnetic field in geological history can be investigated through the measurement of rock's remanent magnetization and the investigation of its stability. These data are also applicable to dating the age of rocks, to solving some tectonic problems or particular terrains (rotations of terrains, microplates), to dating the developments of mineralizations of ore deposits and to many geological problems.

**Archaeomagnetism:** The changes of the Earth's magnetic field in human history can also be investigated. These investigations are mostly applicable to dating archeological materials.

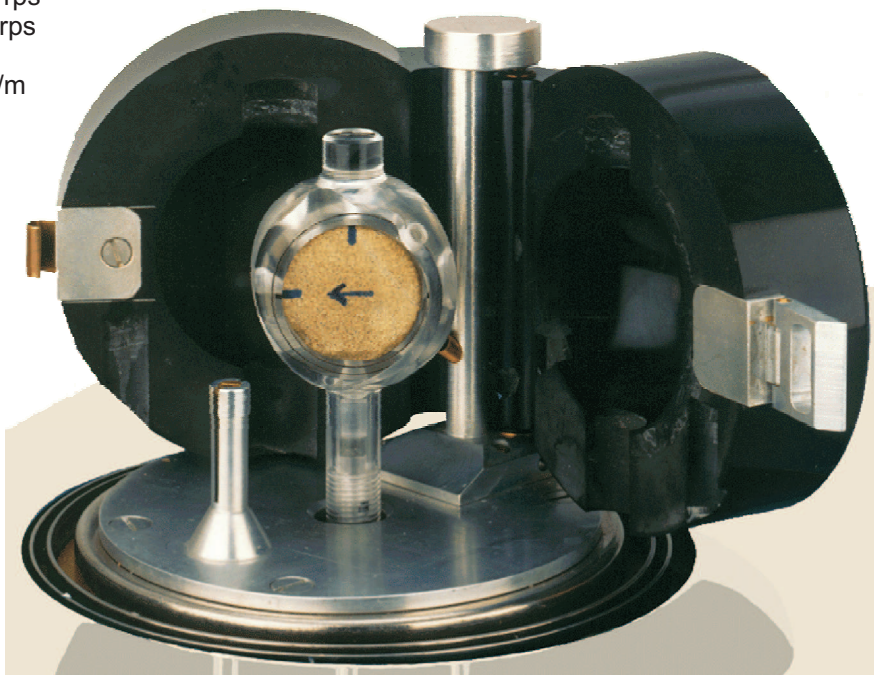
**Magnetometry:** In the interpretation of ground or airborne magnetometric measurements it is useful to know whether the rock's magnetization is due to its induced or remanent component. Investigation of remanent magnetization can help to solve this problem.

**Mineralogy:** Using special capsule enabling smaller irregular specimens to be measured, impurities of ferromagnetic grains in para- or diamagnetic minerals can be investigated.



## Specifications

<b>Specimen Size:</b>		<i>holder</i>		Sensitivity: $2 \times 10^{-6}$ A/m (high speed)	Power: 230, 120, 100 V, 50/60 Hz 40 VA
		<i>automatic</i>	<i>standard</i>		
Cylinder: Diameter	25.4 mm	25.4 mm	Dimensions, mass: Pick-up Unit: 310 x 190 x 185 mm, 24 kg Power Supply Unit: 200 x 160 x 120 mm, 2.5 kg		
	25.0 mm				
Length	22.0 mm	22.0 mm			
Cube: Edge length	20.0 mm	20.0 mm			
Rotation Speed:	High	87.7 rps			
	Low	16.7 rps			
Measuring range:	up to 12 500 A/m				



## Ordering Information

### JR-6 Spinner Magnetometer

comprising:  
JR-6 Pick-up Unit  
JR-6 Power Supply Unit  
Set of Specimen Holders (4 pcs)  
Cylindrical and Cubic Calibration Standards  
Set of Spare Parts  
Set of Interconnecting Cables  
REMA6W Software  
REMASOFT Software  
User's Manual

### JR-6A Spinner Magnetometer

comprising:  
JR-6A Pick-up Unit with Automatic Sample  
Position Manipulator  
JR-6A Power Supply Unit  
Automatic Cylindrical Specimen Holders (2 pcs)  
Set of Specimen Holders for Manual Mode (4 pcs)  
Cylindrical and Cubic Calibration Standards  
Set of Spare Parts  
Set of Interconnecting Cables  
REMA6W Software  
REMASOFT Software  
User's Manual

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