MODEL 2G600
DEGAUSSER SYSTEM CONTROLLER

FEATURES

- Supports manual or computer control; rate of field increase, decrease, and time at maximum field are manually or computer selectable
- Provides a high field uniformity of approximately 1% over a sample region
- Uses a coil current feedback system for high-accuracy magnetic field settings
- Provides field incrementation at field zero crossings with equal positive and negative field excursions
- Very low incidence of treatment-induced (spurious) magnetization

APPLICATIONS

- Paleomagnetic Research

The Model 2G600 Degausser System Controller allows automatic degaussing of samples up to 2.5 kOe with a standard air-cooled solenoid. Other coil systems (water cooled) and power amplifiers can enable peak fields of up to 7.5 kOe.

The Model 2G600 can be completely controlled by an external computer over an RS232 data link. When used with an automatic sample handler and a rock magnetometer measuring system, a complete sequence of measure and degauss cycles can be completed without removing the specimen from the holder.

The Model 2G600 Degausser System Controller provides for manual or computer-controlled sample degaussing. Computer control is implemented with a high-level command language over an RS232 data link.

The magnetic field amplitude is controlled by a 12-bit electronic antenuator. The antenuator is incremented at zero crossings with a user-controlled number (1, 2, 4, or 8) of full cycles between amplitude incrementation. This ensures that the samples are always subjected to an equal number of equal amplitude positive and negative cycles between antenuator incrementations. This antenuation technique, coupled with the use of very low-leakage and low-corona AC capacitors and a low-distortion power amplifier, greatly reduces the production of treatment-induced magnetizations.

Because the degaussing coils tend to heat up with use, it is necessary to measure and control the coil current to ensure that an accurate and precise peak magnetic field is achieved. The 2G600 Degausser System Controller measures the voltage drop across a small (0.25 ohm) precision resistor in series with the coil, which permits a magnetic field peak amplitude accuracy of 1%, even when very high fields (and therefore high coil heating) are used continuously.

APPLIED PHYSICS
2G ENTERPRISES

HEADQUARTERS
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PERFORMANCE

Maximum Field (with standard coil)	2.5 kOe
Peak Field Amplitude Accuracy	1%
Peak Field Amplitude Setability	0.5 Oe
Frequency of Operation (with standard coil)	136 Hz

ELECTRICAL

Control Chassis Power Requirements	115 V@ 1 A
Capacitor Chassis Power Requirements	115 V@ 0.5 A
Power Amplifier Power Requirements	115 V@ 10 A
Operating Modes	Switch selectable: manual or computer
Dwell Time at Maximum Field	Selectable in 1 second increments from 0 to 9 seconds

PHYSICAL

Control Chassis	19" (482.6 mm) x 17" (431.8 mm) x 5" (127 mm) 10 lbs (4.53 kg)
Capacitor and Current Feedback Chassis	19" (482.6 mm) x 19" (482.6 mm) x 10" (254 mm)" (139.7 mm) 15 lbs (6.8 kg)
Standard Coil	8.6" OD cylinder (218.44 mm) x 5.5" (139.7 mm) 3.15" (80 mm) diameter sample access bore 90lbs (40.8kg)
Power Amplifier	19" (482.6 mm) x 17" (431.8 mm) x 10" (254 mm)" (139.7 mm) 75 lbs (34 kg)
Shield Options	Low-loss mu Metal Shield System
Coil Options	Standard Solenoidal Coil: 2.5 kOe maximum field Transverse Split Pairl: 1.5 kOe maximum field High-Field Water-Cooled Solenoid Coil: 7.5 kOe maximum field

RATE OF FIELD INCRESE OR DECREASE

Range	Oe per second
f	68
2f	34
4f	17
8f	8.5

Specifications are subject to change without notice.