

Instruction Manual

MAGNETISING AND DEMAGNETISING COIL



DESCRIPTION

The Magnetising and Demagnetising Coil is suitable for magnetising and demagnetising magnets, iron bars, iron strips etc. The unit comprises a solenoid wound with insulated copper wire and mounted on a base complete.

Magnetising using DC and Demagnetising using AC.

TECHNICAL DATA

960 Windings a) b) Coil Length 255mm c) Coil Diameter 46mm internal d) Operating Voltage : Max. 12V DC or AC e) Max. Current : 5A Dimensions 375 x 240 x 100mm f) g) Mass 2.9kg

ADDITIONAL REQUIREMENT

- a) AC/DC Power Supply (12V, 6A)
- b) Magnetic Needle
- c) Cylindrical Bar Magnet
- d) Analogue Multimeter

MAGNETISING

- 1. Put the suitable soft Iron rod, nail or strip etc to magnetise inside the coil.
- 2. Connect the coil to the power supply and apply a voltage of 12V DC ensuring the power supply is capable of an output of 6 amps or more.
- 3. Switch on the coil and wait for a short while. Then pull the sample slowly from the coil.

The sample should then be magnetised. The resulting North and South poles are dependent on the direction of current flow in the coil i.e. If you reverse the + and – leads into the coil the poles will reverse.

DEMAGNETISING

- 1. Put the sample to demagnetise inside the coil.
- Connect the coil to the power supply and apply a voltage of 12V AC.
- 3. Switch on the coil and wait for a short while.
- 4. Slowly decrease the voltage to zero or gradually reduce the AC voltage to zero and then pull the sample from the coil. The sample should then be demagnetised.

PRODUCTION OF A MAGNETIC FIELD

- 1. Set up the coil with a compass needle at one end.
- 2. Connect the coil to the power supply and set it to DC.
- 3. Switch on the coil, slowly increase the voltage and observe the compass needle.

DEMONSTRATION OF INDUCTANCE

- 1. Connect the multimeter to the sockets of the coil.
- 2. Set the display to "needle position zero centre".
- 3. Set the multimeter to DC voltage reading and choose a small measuring range.
- 4. Move the bar magnet inside the coil and observe the display of the multimeter.

Manufactured by :



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