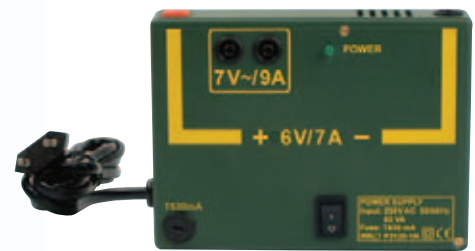
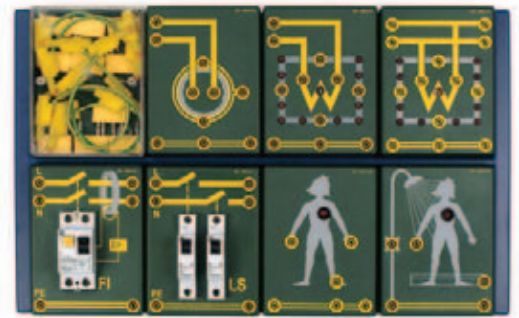




working safely with electricity



DE715-9E Electricity set 9, safety "inno"

consisting of:

- DE721-1F 1x MBI Fault-current switch
Two-pole fault-current cut-out switch
Fault current: 20 mA; max. current: 25 A
Operating voltage: 6...7 V AC
- DE721-1L 1x MBI Line protection switch LS
Circuit breaker for phase and neutral line
- DE721-1M 1x MBI Model of the human body
Red signal lamp and buzzer alarm
- DE721-1S 1x MBI Model of a mains outlet
Safety socket including phase, neutral and ground lines
- DE721-1V 1x MBI Electrical appliance 1
Ten red warning LEDs that light up when the housing short-circuits; includes one E10 socket for a 6V/50 mA light bulb to indicate the operating mode

Dimensions of each MBI ("inno" magnetic module): approx. 160x120x45 mm

- DG500-5A 5x MBC yellow/ green
- DG500-5B 4x Jumper plugs
- DG500-5G 2x Jumper plugs, yellow
- DG500-6G 1x Safety connecting leads, yellow-green, set of 6
- P7806-1B 1x Storage box, large
- P7810-1E 1x Box insert MBI

DE715-9Z Electricity set 9, safety "inno", additional accessories

consisting of:

- DE721-1D 1x MBI Shower
For experiments on potential equalization
- DE721-2V 1x MBI Electrical appliance 2
Ten red warning LEDs that light up when the housing short-circuits; includes one E10 socket for a 6V/50 mA light bulb to indicate the operating mode

Recommended power supply:

P3120-1N Fixed-voltage transformer, "inno"

Output voltage: 6 V DC, stabilized, max. 7 A, and 7 V AC, max. 9 A
Voltage source: 230 V AC/50..60 Hz

See page 258 for further technical details

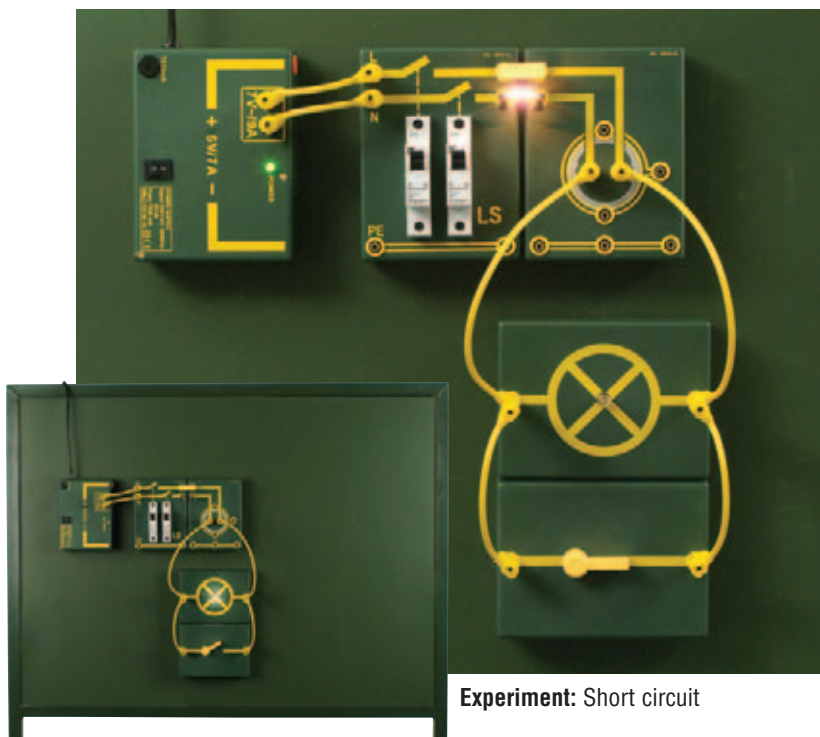


Recommended measuring instrument:

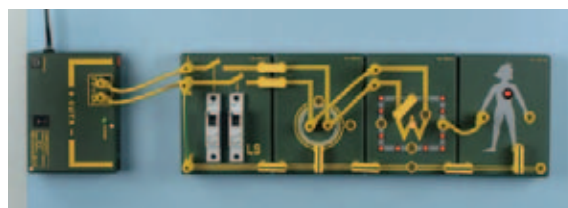
DE710-00 Universal multimeter "inno", analogue

Durable remote-control measuring instrument for use in any position; zero may be set to left or to centre; three insertable double scales: 1/3 - 10/30 - 100/300 (included); arc length of scale: approx. 200 mm, digits 26 mm tall
LED display indicates measuring units and type of current: mV DC, V AC and DC, μ A AC and DC, mA AC and DC, A AC and DC
See page 270 for further technical details

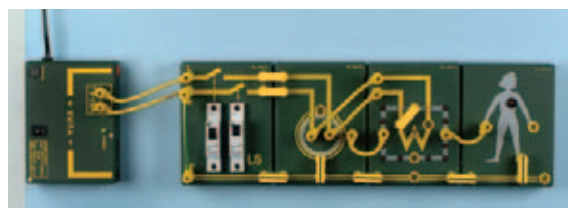
safety experiments on the magnetic panel



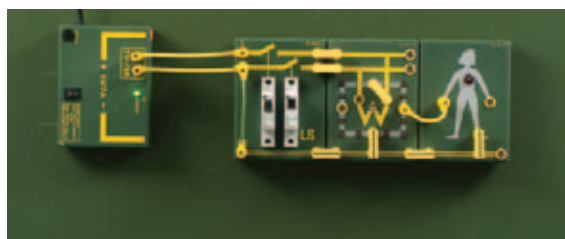
Experiment: Short circuit



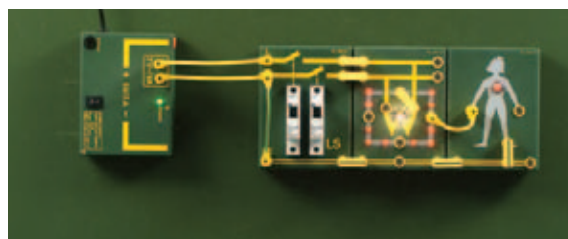
Experiment: Grounded (Schuko) outlet - electrical device connected without grounding during a short circuit - alarm



Experiment: Grounded (Schuko) outlet - electrical device connected with grounding during a short circuit



Experiment: Protective grounding - grounded electrical device during a short circuit



Effect of a fault-current switch
Experiment: Electrical device, without grounding, under current during a short circuit - alarm

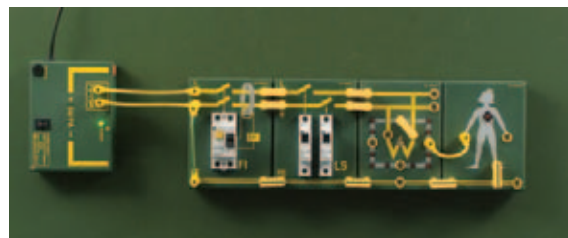
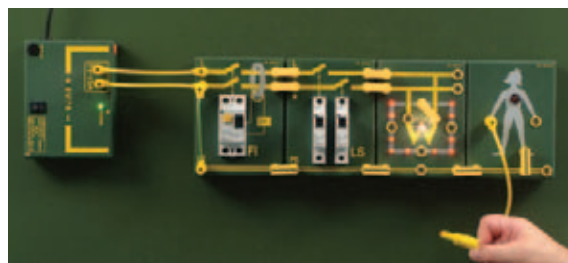
Experiments on the topic of:

WORKING SAFELY WITH ELECTRICITY

DE715-9SE Experiment manual "Fault Current System", b/w booklet

DE715-9CE Experiment manual "Fault Current System", CD-ROM

- EFI 001 Overloading and fuses
- EFI 002 Short circuits
- EFI 003 Resistance of the human body
- EFI 004 The human body in circuits
- EFI 005 Touching one contact can be lethal
- EFI 006 Touching one contact through a housing short circuit
- EFI 007 Lethal errors
- EFI 008 Site insulation
- EFI 009 Protective separation
- EFI 010 Protective grounding
- EFI 011 Grounded receptacle outlet
- EFI 012 Disadvantages of protective grounding
- EFI 013 Death in the shower - potential equalization
- EFI 014 Earth leakage safety switch (fault current switch)
- EFI 015 Advantages of a fault-current switch
- EFI 016 Testing a fault-current switch



Experiment: Touching an electrical device without grounding during a short circuit causes the fault-current switch to break the circuit immediately