



Electron S.R.L.

Design
Production &
Trading of
Educational
Equipment

A51 – HOUSEHOLD APPLIANCES MAINTENANCE TRAINERS



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The series includes trainers to be used in basic electricity courses as well as in vocational courses for maintenance and repair technicians.

The trainers of this series consist of commercial apparatus of latest design, transformed for teaching. The scopes of this didactic transformation are:

- To make the essential parts of the apparatus visible so that the principles of operation can be understood
- To show the implementation and construction aspects of the apparatus so that the student becomes acquainted with the practical aspects and characteristics of the components.
- To train in troubleshooting (whenever applicable).



A5130 - HOUSEHOLD CLOTHES IRON DEMONSTRATOR

This trainer consists of a Clothes Iron of a renowned make and reliability, transformed for didactic use.

The unit is intended for use in both vocational and advanced technical study courses.

The Iron is mounted on the front face of a sturdy metallic housing, partially disassembled so that each construction aspect is observable.

A clear functional synoptic diagram is printed on the front of the panel, and allows the investigation of the systems involved.

Isolated, low voltage test points are provided to replicate the original signals present in the Iron. This system ensures complete safety for the student during the use of the trainer.

Examples of the study topics allowed by the trainer:

- Familiarisation with the system organisation used in a domestic Clothes Iron
- Operative characteristics of the components incorporated (thermostat, heating element, lamp indicator)
- Study of the process of temperature control



The trainer is supplied ready to work with a complete instructions manual.

Technical data:

Power supply: 230V, 50Hz nominal

Power rating: 1000W approx

Ordering code:

A5130

A5140 - DESK FAN DEMONSTRATOR

This trainer consists of a Table Fan of a renowned make and reliability, transformed for didactic use.

The unit is intended for use in both vocational and advanced technical study courses.

The Fan has the original motor case modified by the insertion of a transparent protective cover, allowing a more detailed study of the mechanical parts of the apparatus.

A clear functional synoptic diagram is silk-screen printed on the base.

Isolated, low voltage test points are provided to replicate the original signals present in the Fan. This system ensures complete safety for the student during the use of the trainer.

Examples of the study topics allowed by the trainer:

- Familiarisation with the system organisation used in a Table Fan
- Operative characteristics of the components incorporated (speed regulation, mechanical oscillation gear-box)

The trainer is supplied with an instructions manual.

Technical data:

Power supply: 230V, 50Hz nominal

Power rating: 50W approx

Ordering code:

A5140



A5180A-R – DOMESTIC REFRIGERATOR TRAINER

The trainer consists of a commercial apparatus of renowned quality and reliability, transformed for didactic use. The unit is intended for use in both vocational and advanced technical study courses.

The transformation consists in the addition of a clear synoptic board with the system block diagram and a fault simulator. Isolated, low voltage test points are provided to replicate the original signals present in the Refrigerator. This system ensures complete safety for the student during the use of the trainer.

The fault simulator consists of 6 micro-switches, concealed from the student by a cover, which can be removed by the instructor. The simulated faults are to train students in troubleshooting.

Optionally fault simulation can be performed through a microprocessor board system, provided with keyboard and alphanumeric display. This fault simulator allows the recording and printout of the student's attempts to solve the simulated fault.

Examples of the study topics allowed by the trainer are:

- Familiarization with the system organization and components used in industry-standard Refrigerator
- Operative characteristics of the components involved
- Study of the process of temperature control
- Troubleshooting



The trainer is supplied with an accessories kit and an instructions manual.

Technical data:

- Capacity:
 - o Lower compartment: 180 liters
 - o Freezer: 48 liters
- Power supply: AC mains 220-240V, 50Hz

Ordering code:

A5180A-R

A5180A-W – WASHING MACHINE TRAINER

The trainer consists of a commercial apparatus of renowned quality and reliability, transformed for didactic use.

The units are intended for use in both vocational and advanced technical study courses.

The transformation consists in opening on the sidewalls of the original cabinet and the insertion of wide windows in order to make the internal elements visible and their operation observable.

In addition to this a clear synoptic board is added with the system block diagram.

Isolated, low voltage test points are provided to replicate the original signals present in the Washing Machine. This system ensures complete safety for the student during the use of the trainer.

The fault simulator consists of 6 microswitches, concealed from the student by a cover, which can be removed by the instructor. The simulated faults are to train students in troubleshooting.

Optionally fault simulation can be performed through a microprocessor board system, provided with keyboard and alphanumeric display. This fault simulator allows the recording and printout of the student's attempts to solve the simulated fault.

Examples of the study topics allowed by the trainer are:

- Familiarisation with the system organisation and components used in industry-standard washing machines
- Operative characteristics of these components (solenoid valves, pump, heater, sensors, variable-speed motor)
- Study of the process, with special concern to level, temperature, speed controls
- Troubleshooting

The trainer is supplied with an accessories kit (cables and connecting pipes) and an instructions manual.

Ordering code:

A5180A-W

