



Automotive Air Conditioning Training Unit – Mod. 810



- ***Complete System Bench Mounted***
- ***Fitted with 12 Volt Control System***
- ***Optional Student Tool Kit and Test and Service Equipment***
- ***Instruction Manual Contains Course Notes, Instruction Notes and Student Example Worksheets***
- ***Demonstrates Common Faults and Effects on the System***
- ***Two year Warranty***



Introduction

The 810 is designed to train students in the operation, fault finding, maintenance and repair of automotive air conditioning systems.

It comprises a complete automotive air conditioning system on an alloy frame suitable for bench mounting. The unit operates on R134a refrigerant used in most current vehicle air conditioning systems and connections are provided to allow the use of standard R134a manifold gauges.

Description

Model 810 is one of a range of trainers designed to provide practical training in the fields of Refrigeration and Air Conditioning.

Each trainer has been carefully designed to provide instruction in specific topic areas that trainees are required to study as part of most Refrigeration and Air Conditioning courses.

The compressor is driven by a synchronous AC electric motor and the complete unit has an internal Residual Current Device for additional operator safety. Apart from the drive motor all other controls are 12V as used in automotive air conditioning systems.

Temperature control is by an adjustable electronic thermostat and the evaporator has three fan speeds to show the effect of air velocity and varying load on the system

Four common faults can be demonstrated –

- Blocked Thermostatic Expansion Valve
- Blocked Drier
- Compressor Fault
- Poor Condensing

A standard Student Tool Kit and Test and Service Equipment Package are available as optional items.

Further details available on request.

Student Tool Kit



Test & Service Equipment





Specification

Detailed

A complete vehicle air conditioning system mounted on an alloy frame and fitted with standard R134a manifold gauge connections.

Incorporating:-

Electric Motor nominal 1500rpm with overload cut out.

Five cylinder open type compressor with duty of up to 7.5 Kw at maximum rated speed.

Air cooled condenser and fan with 12v dc motor.

Evaporator fitted with three speed 12 dc fan and Thermostatic Expansion Valve.

Electronic thermostat, adjustable for temperature control.

Transformer to provide 12v automotive control circuit.

Electrical control box with key locked emergency of button, on – off switch, ignition key and residual current device.

Four switch controlled fault conditions:

- Blocked Thermostatic Expansion valve
- Blocked drier
- Compressor Fault
- Poor condensing

Refrigerant R134a

Operating Manual

A comprehensive operating manual includes:

- Notes on theory and principles
- Instructor's guide notes
- Student test papers and sample answers
- Electrical wiring diagram.

Dimensions

Height 46 cm Depth 57 cm
Width 91 cm Weight 100kg

Services Required

Electrical

Either: **A:** 13Amp.220-230 Volts, Single Phase, 50Hz
(With earth/ground).

OR

B: 26Amp.110-120 Volts, Single Phase, 60Hz
(With earth/ground).

Optional Equipment

- Student Tool Kit
- Test And Service Equipment

Ordering Information

Order as: Automotive Air Conditioning Training Unit 810

Electrical Specification

Either: **A:** 220-230Volts, Three Phase, 50Hz
(With earth/ground).

OR

B: 110-120Volts, Three Phase 60Hz
(With earth/ground).

Language

Either: English, Spanish or French

Shipping Specification (Approx)

Net Weight: 100 kg
Gross Weight: 150 kg.
Packing Case Dimensions: 100 x 60 x 75 cm
Packing Case Volume: 0.450m³

Also Available on Request

- Further detailed specification
- Additional copies of instruction manual
- Recommended list of spares for 5 years operation

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