

Air Conditioner/Refrigerator Refrigeration and Heating Trainer



Note :
Due to keeping innovation,
the specification and
Machine pictures or color
are subject to alteration
without notice!

Equipment Overview

- This trainer is developed to meet the training requirements for 'Refrigeration technology', 'Refrigerating fluid machinery', 'home use refrigeration equipment principle and maintenance', 'Cold storage technology', etc.
- It integrates air conditioner simulator and refrigerator simulator, and adopts real refrigerating unit which is perfect for teaching.
- It is configured with two systems, one is air conditioner system and the other is comprehensive direct/indirect cooling type refrigerator system. The whole system is actual, tight and integrated, which is composed of air conditioner/refrigerator refrigerating system, electrical control system, fault simulation system and so on.
- It can intuitively display the system structure and working principle of heat pump type split air conditioner. The refrigerating cycle system structure and real object of main components can be observed clearly. As equipped with AC voltmeter, AC ammeter, thermometer, vacuum manometer and signal lamps, the working condition of air conditioner and refrigerator is clear at a glance.
- Liquid level glass is adopted in pipeline for refrigerant state observation, and fault simulation suite is adopted for troubleshooting.



Training Content

- Split air conditioner control principle
- Air conditioner working condition
- Air conditioner fault phenomenon
- Refrigerator working principle
- Air conditioner/refrigerator fault setting
- Refrigerator fault phenomenon
- Refrigeration system maintenance tool
- Refrigeration system gas tightness examination
- Refrigeration system vacuum treatment and refrigerating fluid filling
- Refrigeration and heating system assessment (optional)
- Temperature routing inspection
- Detection and fault analysis

Technical Parameters

1. Input power: Single phase three wire AC220V $\pm 10\%$, 50Hz
2. Installed capacity: $< 1.2\text{kVA}$
3. Dimension: 1400mm $\times$ 750mm $\times$ 1700mm (approx.)
4. Refrigerant: Air conditioner (R22), refrigerator (R12)
5. Safety protection: Voltage leakage, current leakage protection.

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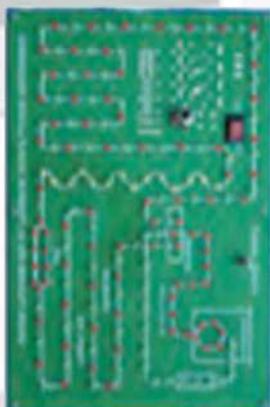
Refrigerator and air conditioner fault demonstration



Provided with dedicated 25-pin interface for the connection of module to training platform, the module is provided with common fault setting point for the simulation of system faults, such as power circuit fault, temperature sensor circuit fault, drive circuit fault, compressor protection circuit fault, indoor fan speed regulating circuit fault, etc.

There are 20 fault switches available for air conditioner (intelligent for 16 faults) and 5 fault switches available for refrigerator.

Working principle demonstration module



Remote control split type air conditioner working principle demonstration module



Refrigerator working principle demonstration module

Tool Kit



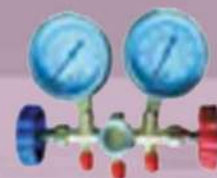
Portable welding torch



Rotary-vane vacuum pump



Pipe bender



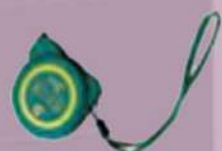
Dual-gauge valve



Adapter



Monkey wrench



Tape measure



Charging hose



Charging hose

Expand tube reamer
Cutting-off tool
Chamfering tool



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