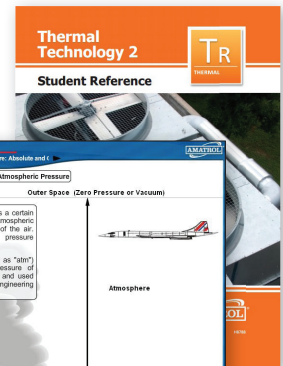


Thermal Technology 2 Learning System

96-TT2



96-TT2 Thermal Technology 2 Learning System



Interactive Multimedia and Student Reference Guide

Learning Topics:

- Refrigeration System Operation
- Refrigerant Types
- Heat Pump System Operation
- Compressors
- Reversing Valves
- Expansion Valves
- Evaporators/Condensers
- Moisture Indicators
- Capillary Tube Expansion Valves
- Thermostatic Expansion Valves
- Automatic Expansion Valves
- Dampers
- Phase Diagrams
- Property Tables
- Thermodynamic Cycles
- Thermal Efficiency
- Coefficient of Performance

Amatrol's Thermal Technology 2 Learning System (96-TT2) teaches three types of thermal systems: air conditioning, refrigeration, and heat pumps. Learners will acquire industry-relevant skills including how to operate, install, analyze, and adjust these systems. This system will be of great value to future HVAC or industrial maintenance professionals.

The 96-TT2 includes many instrumentation features to allow observation and monitoring of system operation. Sight glasses are located at three points on both the evaporator and condenser coils to show how the refrigerant changes phase as it passes through each coil. Pressure and temperature gauges are placed at the inlet and outlet of the condenser and evaporator to determine heating and cooling performance. Other teaching components include moisture indicator, panel-mounted compressor ammeter, and flow meter.



Technical Data

Complete technical specifications available upon request.

Thermal System

- Flow Meter
- Expansion Valves
- Pressure/Temperature Gauges
- Evaporator
- Drip Pans
- Pressure Controller
- Reversing Valve
- Suction Accumulator
- Hermetic Compressor
- Receiver
- Condenser
- Ammeter
- Automatic Temperature Control
- Mode Switch
- Power Switch
- Check Valve
- Typical Refrigeration Valve
- Filter/Dryer Valve
- Moisture Indicator

Multimedia Curriculum (MB788)

Instructor's Guide (CB788)

Installation Guide (DB788)

Student Reference Guide (HB788)

Additional Requirements:

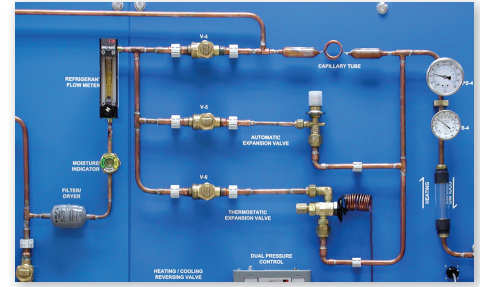
Thermal Technology 1 Learning System (96-TT1)
Computer: See requirements: <http://www.amatrol.com/support/computer-requirements/>

Utilities

Electricity (120 VAC/60 Hz/1 phase)

Build Hands-On Thermal Skills with Real-World Components

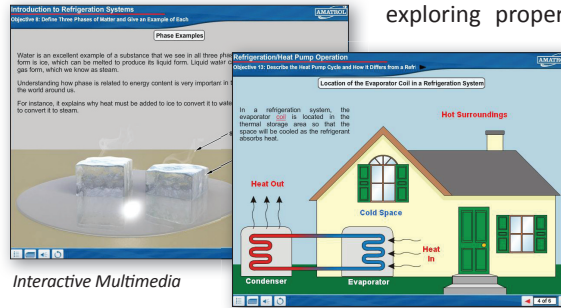
The 96-TT2 is a mobile working system with industrial components that can perform heat pump, air conditioning, and refrigeration systems operation, including microprocessor control, all of which enable learners to explore a wide range of thermal application and system designs. The Thermal Technology 2 Learning System can replicate a variety of performance conditions with features such as heavy-duty industrial blowers attached to the condenser and evaporator coils and manual valves placed throughout the refrigeration system. The 96-TT2 uses a modern microprocessor-based temperature control of the air temperature at either coil. It includes a programmable keypad for both heating and cooling modes, electrical reversing valve, RTD-type remote temperature probe, and digital display. Components are arranged in a bread-board fashion on the workstation to make it easy for students to follow the system flow and understand its operation. Manual valves are provided throughout so learners can create faults and change system performance. Extensive instrumentation is included.



Capillary Tube, Automatic Expansion, and Thermostatic Expansion Valves

Basic to Advanced Thermal Technology Curriculum Offers Unparalleled Training

The Thermal Technology 2 curriculum will show learners how to identify refrigeration system components, and how to convert between absolute and gauge pressure. It will also advance learners' understanding of refrigeration thermodynamics, exploring property tables, phase diagrams, vapor-compression, and more. Most specifically, learners will study the function and application of refrigerants, heat pump systems, vapor compression refrigeration performance, and more. This outstanding curriculum is presented in an interactive multimedia format which features a self-paced approach as well as expansive videos, audio, 3D animations, and skill-building interactions.



Interactive Multimedia

Additional Project-Based Learning Systems

The 96-TT2 is only one learning system that can help prepare future HVAC technicians for future career opportunities. Other applicable systems include Electrical Fabrication 1 (96-ELF1) and AC/DC Electrical (96-ADE1). Additional learning categories within Project-Based Learning include automation, electrical, machining, manufacturing processes, materials, mechanical, quality assurance, thermal, and workplace effectiveness.



Electrical Fabrication 1 (96-ELF1)



Student Reference Guide

A sample copy of the Thermal Technology 2 Student Reference Guide is included with the learning system. Sourced from the multimedia curriculum, the Student Reference Guide takes the entire series' technical content contained in the learning objectives and combines them into one perfect-bound book. If you would like to inquire about purchasing additional Student Reference Guides for your program, contact your local Amatrol Representative for more information.

