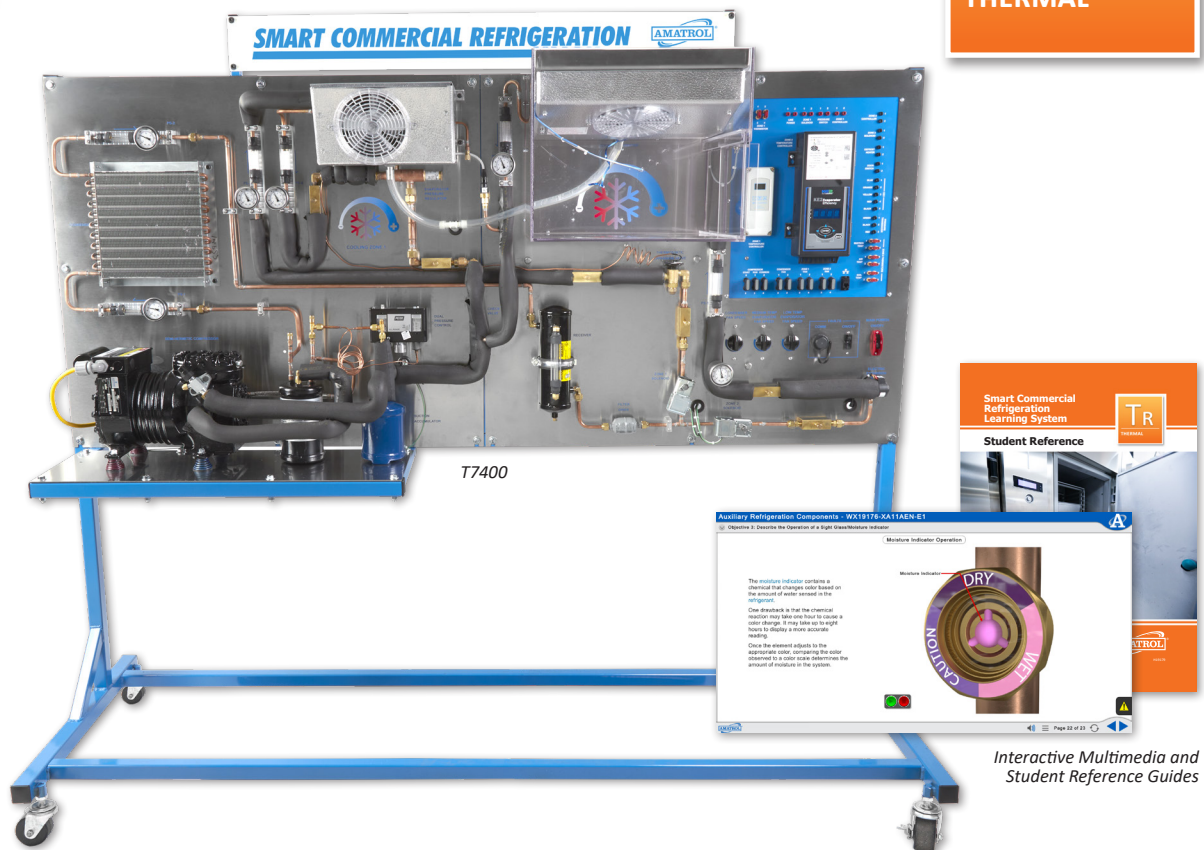


Smart Commercial Refrigeration Learning System

T7400



Learning Topics:

- Introduction to Commercial Refrigeration
- Semi-Hermetic Compressors
- Smart Commercial Refrigeration Control
- Ethernet & Wi-Fi HVAC Communications
- Electric Expansion Valves
- Multi-Evaporator Refrigeration
- Defrost Control
- Mechanical Component Troubleshooting
- Electrical Component Troubleshooting
- Systems Troubleshooting

Commercial refrigeration allows businesses like supermarkets, gas stations, restaurants, and more to prolong the shelf life of certain products. When one of these refrigeration systems breaks down, time is of the essence, and an efficient technician with experience in troubleshooting commercial refrigeration systems is required. Finding a technician with the necessary skills can be difficult though, due to the skills gap in the HVACR field and many other trade professions. Amatrol understands the importance of equipping future commercial refrigeration technicians with the best hands-on education possible and offers a solution.

The T7400 Smart Commercial Refrigeration Learning System teaches students how to operate and troubleshoot commercial refrigeration systems, including those systems used in commercial air conditioning, refrigerated display cases, walk-in coolers and freezers, and more. Students will learn how to operate and adjust a commercial refrigeration system, program a smart controller, take airflow measurements, and troubleshoot a system and both its mechanical and electrical components.

The T7400 includes a mobile workstation equipped with a semi-hermetic compressor, evaporators, expansion and solenoid valves, defrost controls, adjustable air flow fans, and much more. The system also includes FaultPro, Amatrol's premier computer-based fault-insertion system, that enables students to gain hands-on troubleshooting experience. Amatrol's proven PC-based interactive, multimedia student curriculum is included, as well as an install guide, instructor's guide, and student reference guide.



Technical Data

Complete technical specifications available upon request.

Workstation

1/2 HP Semi-Hermetic Compressor
Evaporators (2)
Thermostatic Controls (2)
Condenser
Thermostatic Expansion Valve
Electronic Expansion Valve
Liquid Line Solenoid Valves (2)
Electric Defrost
Air Defrost
Adjustable Air Flow Fans (3)
Evaporator Pressure Regulator
Oil Separator
Computer-Based Fault Insertion
Lockout/Tagout
PC-Based Student Curriculum (M19179)
Instructor's Guide (C19179)
Instructor's Resource Print CD with Skills PDF (K19179)
Installation Guide (D19179)
Student Reference Guide (H19179)
Supplemental Disk (S19179)

Additional Requirements:

R134a refrigerant
19276 Tool Kit
Computer; For PC requirements, see
<https://amatrol.com/support/>
Wireless router

Utilities Required:

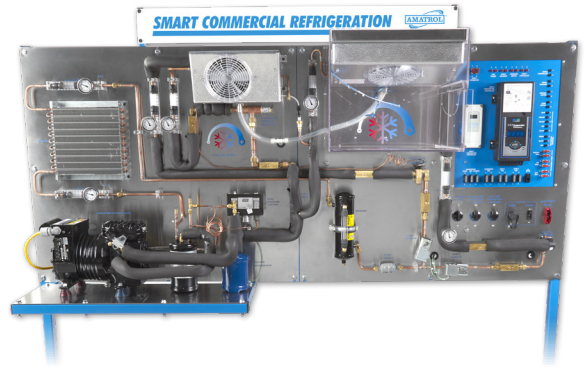
Electricity (120 VAC/60Hz/1 phase)

Options:

19203 Compressor Guard for additional heat
exposure protection

Hands-On Skills and Troubleshooting Practice

The T7400 uses up-to-date real-world mechanical and electrical components that students will encounter on the job to teach hands-on skills. Using the semi-hermetic compressor, students will learn how to adjust the pressure settings on a dual pressure control device. The modern smart commercial refrigeration controller enables students to configure, operate, and monitor a smart controller for single-zone operation. Students will use the two enclosed evaporators with adjustable airflow to configure and operate a multi-evaporator commercial refrigeration system, including demonstrating control of temperature in a confined space using the built-in Plexiglass chamber. Various safe test points on the system are also included so that students can safely take airflow measurements, such as velocity (FPM), static pressure, velocity pressure, and total pressure.

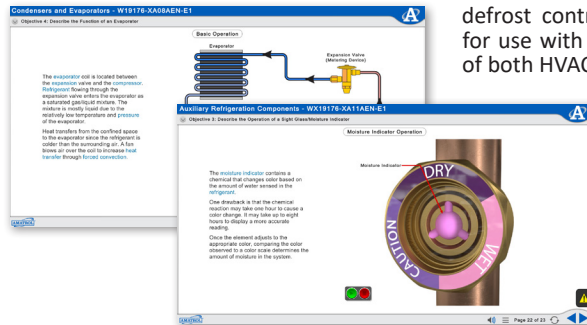


Troubleshooting skills are taught using FaultPro, which is Amatrol's computer-based fault-insertion software that inserts electronic faults safely without risk to the student or the equipment. Approximately 35 faults are provided to be implemented and tested on the T7400 learning system. Students will learn to troubleshoot mechanical components, electrical components, and systems, including single-zone and multi-evaporator smart commercial refrigeration systems with incorrect cooling and no cooling.

Comprehensive Multimedia Curriculum

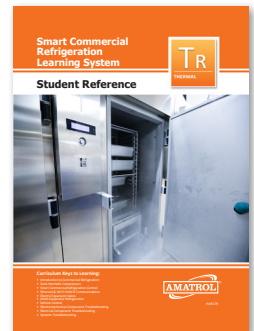
Amatrol's unmatched, highly-interactive multimedia uses text, voiceover, 3D graphics and diagrams, and animations to appeal to multiple learning styles. The T7400's curriculum covers a range of commercial refrigeration topics, including electrical defrost control, configuration of a smart controller for use with an electric expansion valve, connection of both HVACR Ethernet and Wi-Fi devices, and more.

By course completion, students will have acquired a combination of theoretical knowledge and hands-on skills that prepares them to pursue a career as a smart commercial refrigeration technician.



Student Reference Guide

A sample copy of the Smart Commercial Refrigeration Student Reference Guide is also included with the system for your evaluation. Sourced from the system's curriculum, the Student Reference Guide takes the entire series' technical content contained in the learning objectives and combines them into one perfectly-bound book. Student Reference Guides supplement the course by providing a condensed, inexpensive reference tool that students will find invaluable once they finish their training, making it the perfect course takeaway.



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