

HVACR

Training Solutions





TEACH HANDS-ON HVACR SKILLS WITH REAL WORLD EQUIPMENT

Amatrol's HVACR program combines practical hands-on skills with essential knowledge to teach the next generation of HVACR technicians.

Interactive eLearning Curriculum to Prepare Today's HVACR Technician

Amatrol's library of interactive HVACR eLearning curriculum provides a comprehensive learning experience from thermal concepts to the latest smart HVACR technology and applications. Amatrol's eLearning features voiceovers of all text, interactive quizzes, stunning 3D animations, and more to fully engage learners.

Teach Key Troubleshooting Skills

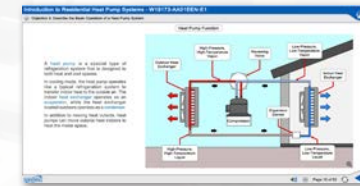
Amatrol's FaultPro computer-based fault insertion software is the industry's only electronic troubleshooting training system. FaultPro allows instructors to instantly set and tailor faults to test a student's weaknesses and turn them into strengths.



RESIDENTIAL HEAT PUMPS

Residential Heat Pump Troubleshooting ▶ T7100

- Introduction to Residential Heat Pump Systems
- Heat Pump Thermostat Operation
- HVAC Pressure and Temperature Measurements
- Heat Pump Component Tests
- Troubleshooting Residential Heat Pump Systems



T7100 Multimedia Included



T7100

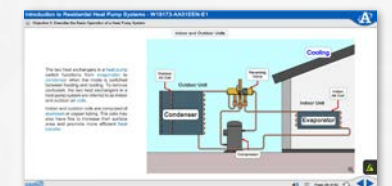
MINI SPLIT TROUBLESHOOTING SYSTEM T7130



T7130

Residential Mini-Split Heat Pump Troubleshooting ▶ T7130

- Introduction to Residential Mini-Split Heat Pump Systems
- Mini-Split Heat Pump Operation
- HVAC Pressure and Temperature Measurements
- Mini-Split Heat Pump Component Tests
- Troubleshooting Residential Mini-Split Heat Pump Systems



T7130 Multimedia Included



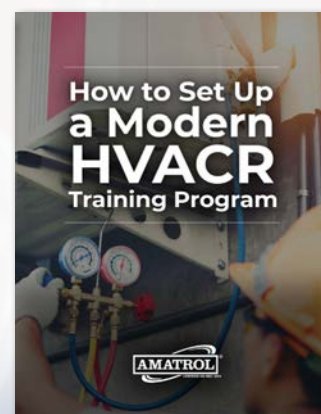
AMATROL HVACR CLIENT RESOURCES



Check out Amatrol's HVACR YouTube playlist!



Download Amatrol's HVACR eBook!



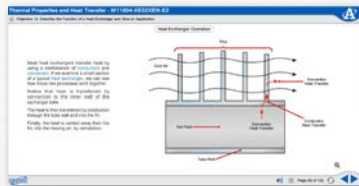
TEACH INDUSTRY-RELEVANT HVACR SKILLS: FROM BASIC TO ADVANCED



BASIC REFRIGERATION

Basic Refrigeration ▶ T7045

- Temperature and Pressure Measurement
- Refrigeration Energy
- Compressors
- Heat Transfer
- Phase Change Effects
- Condensers and Evaporators
- Auxiliary Refrigeration Components
- Refrigeration System Performance



T7045 Multimedia Included



T7045

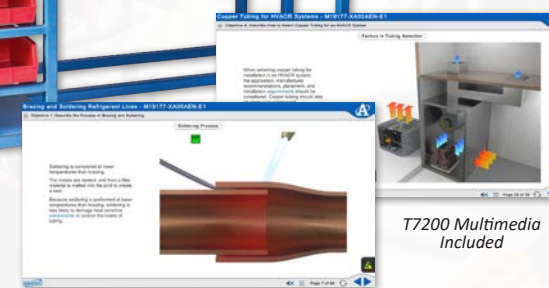
REFRIGERATION INSTALLATION

Combined Refrigeration Installation ▶ T7200

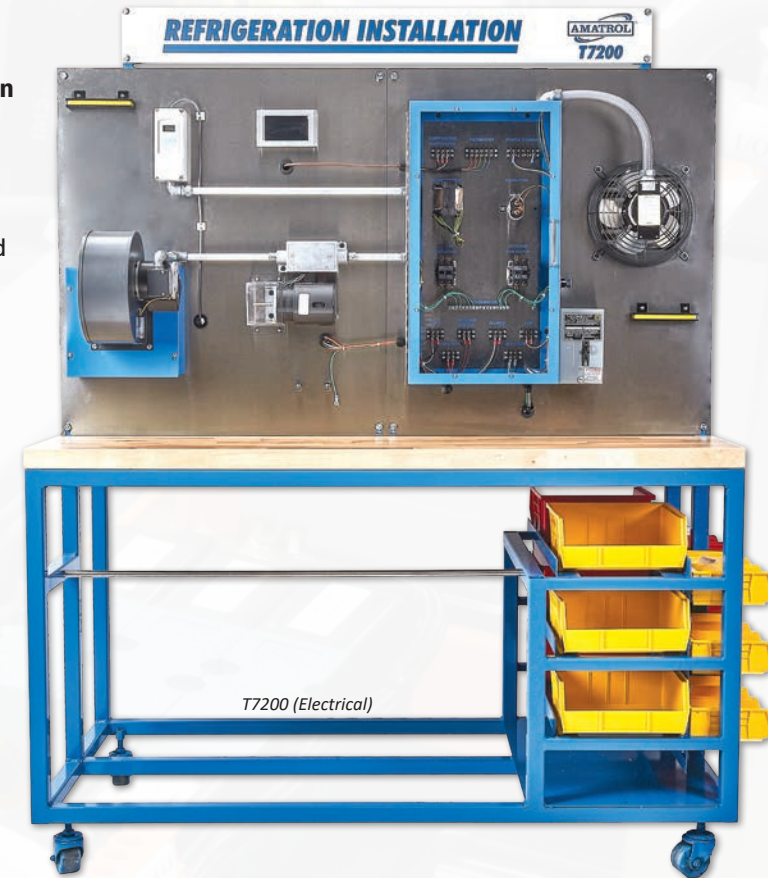
- Fluid Conductors / Tubing / Piping
- Fitting Selection and Sizing
- Soldered / Brazed Connections
- Circuit Breakers
- Wiring Selection and Sizing
- Testing System Operation



T7200 (Mechanical)



T7200 Multimedia Included



T7200 (Electrical)

REFRIGERANT RECOVERY AND CHARGING

Refrigerant Recovery and Charging ▶ T7031 (Uses R-134A Refrigerant)

- ▶ T7032 (Uses R-410A Refrigerant)

- Refrigerant Fundamentals
- Environmental Regulation of Refrigerants
- Ultrasonic, Dye, & Halide Leak Detectors
- Gas Pressurization and Soap Leak Detection
- Refrigerant Recovery & Recycling
- Refrigerant Handling & Storage Procedures
- Refrigerant Charging Methods
- Charging Blended Refrigerants



T7031/T7032 Multimedia Included



T7031



T7032

Digital Gauge Manifold ▶ T7033

- Bluetooth Probes for Wireless Measurement
- Results via Smart App
- Pressure and Temperature Measurement
- Superheat and Subcooling Measurement
- Vacuum Measurement



T7033

COMMERCIAL REFRIGERATION

Commercial Refrigeration ▶ T7400

- Mechanical and Electrical Control Components & Connection
- Semi-Hermetic Compressors
- Smart Controllers
- Electronic Expansion Valves
- Multi-Zone Refrigeration
- Defrost Control
- Programming Commercial Refrigeration Systems
- Troubleshooting Commercial Refrigeration Systems



T7400



HVAC CONTROLS



HVAC Controls Learning System ▶ T7300

- Thermostats & Temperature Controllers
- Control Transformers
- Fan & Blower Motors
- Compressor Motors
- Basic Refrigeration Control Circuits
- Residential & Commercial HVAC Control Circuits

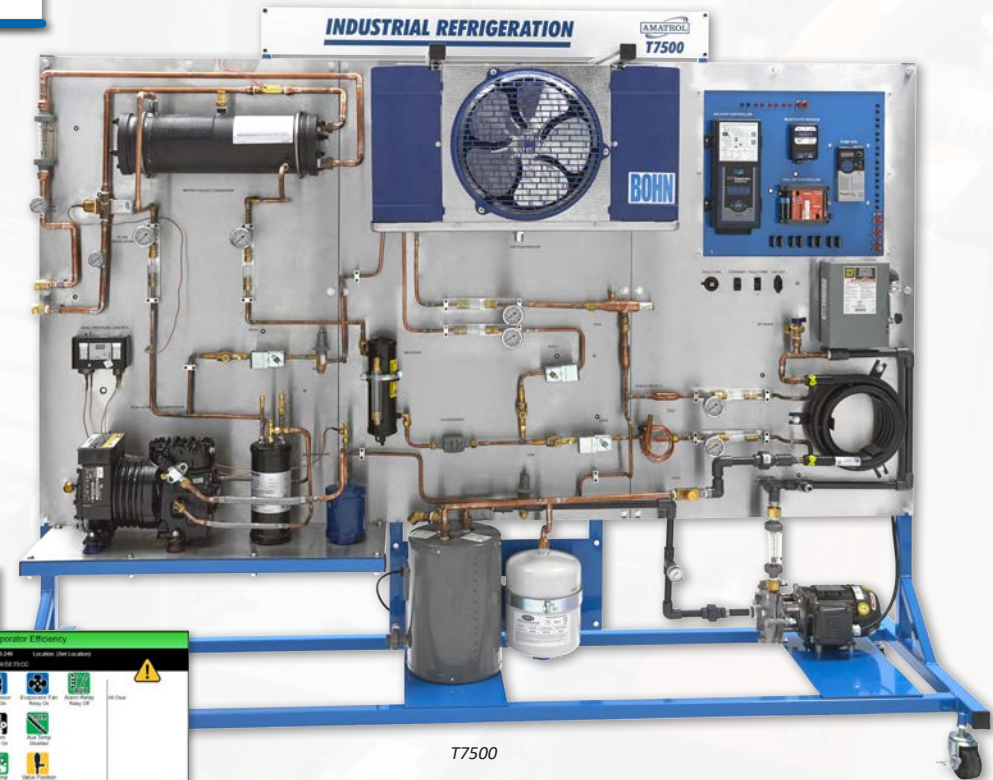
FAULTPRO
COMPUTER-BASED FAULT INSERTION

INDUSTRIAL REFRIGERATION

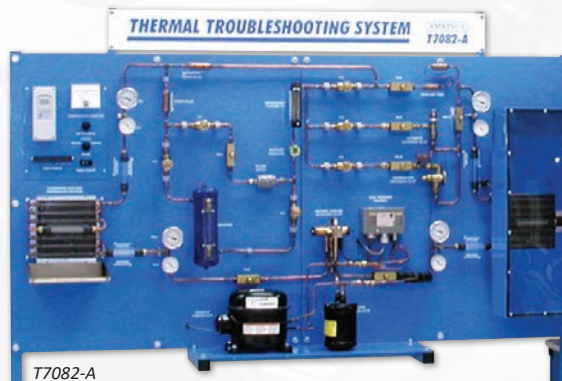
Industrial Refrigeration Learning System ▶ T7500

- Industrial Refrigeration Introduction
- Smart Refrigeration Controls
- Ethernet & Wi-Fi Communications
- Chiller Systems & Visualization Software
- Multi-Zone Industrial Refrigeration
- Mechanical & Electrical Component & System Troubleshooting

FAULTPRO
COMPUTER-BASED FAULT INSERTION



HEAT PUMPS



Environmental Applications ▶ T7083

- Insulation
- Psychrometrics
- Residential Heating and Cooling
- Thermal System Performance

FAULTPRO
COMPUTER-BASED FAULT INSERTION



T7083 Multimedia Included

Heat Pump Troubleshooting ▶ T7082-A

(Also available as a T7082 without Troubleshooting)

- Thermal Energy and Heat Transfer
- Thermodynamic Laws and Properties
- Refrigeration Thermodynamics
- Heat Pump Operations
- Thermal System Troubleshooting
- Phase Diagrams
- Property Tables
- Refrigerant Types



T7082-A includes FaultPro Electronic Fault Insertion



FAULTPRO
COMPUTER-BASED FAULT INSERTION

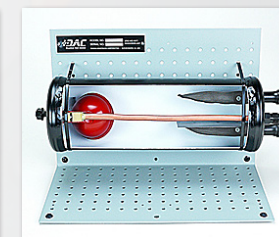
HVACR CUTAWAYS

DAC
WORLDWIDE

DAC Worldwide, Amatrol's sister company, features HVACR cutaways of real industrial components that have been restored & sectioned to expose key internal components & their functionality.



373-501
ACR Steel Ball Valve



373-721
ACR Oil Separator, Float-Type



373-110
Hermetic Compressor

HVACR SKILLS

THERMAL SCIENCE

Thermal Science ▶ T7081

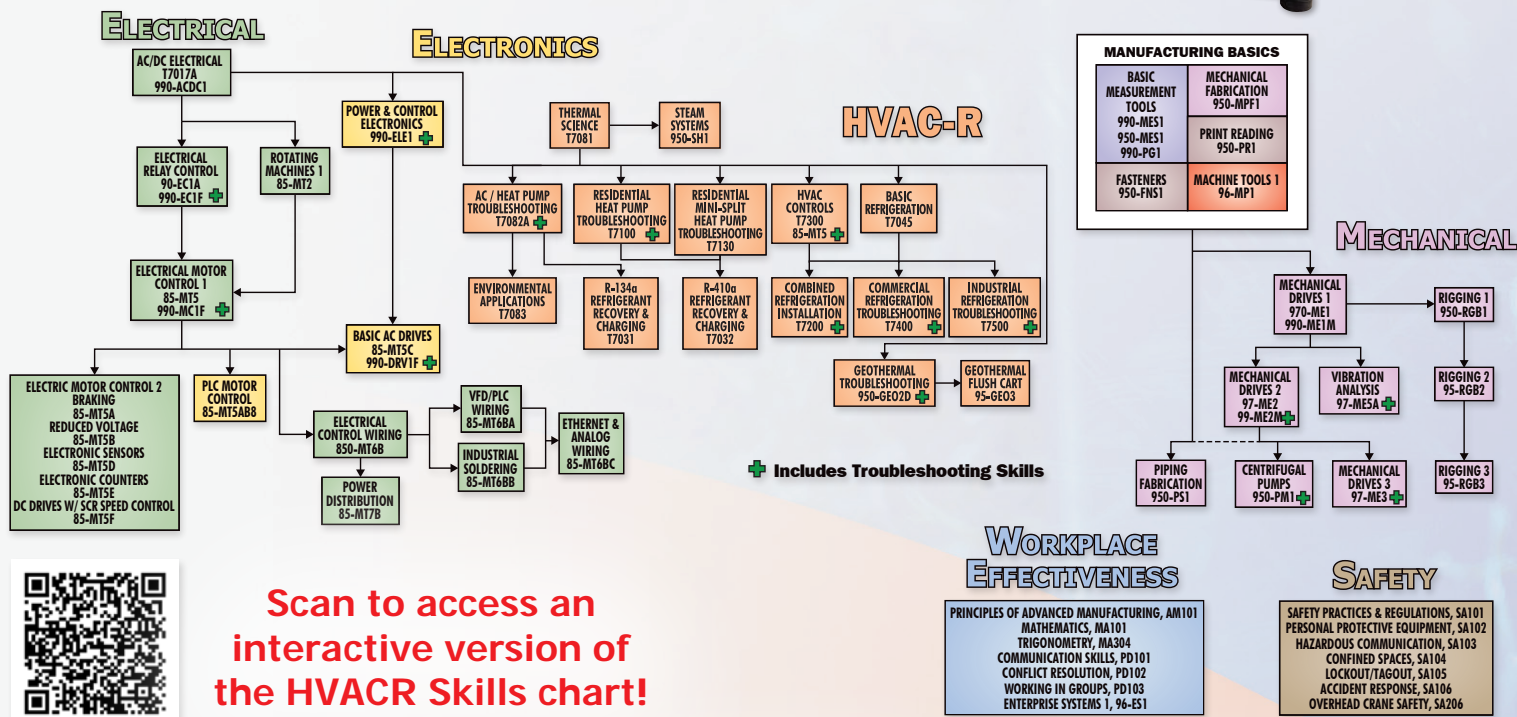
- Temperature and Pressure Measurement
- Thermal Expansion
- Enthalpy, Phase Change
- Heat Transfer, Thermodynamic Laws
- Gas Laws and Phase Equilibrium



T7081 Multimedia Included



T7081



Scan to access an interactive version of the HVACR Skills chart!



Instructor Training Visit Amatrol.com to learn more!

Successful HVAC-R programs need well-trained instructors. Amatrol's commitment to instructor training is unparalleled with 20+ years of experience and thousands of instructors trained.

Amatrol offers HVACR instructor training courses through the Amatrol Technical Training Institute (ATTI) in Jeffersonville, Indiana, as well as at Regional Training Centers throughout the U.S. These courses provide training on both technical subject matter and the implementation of Amatrol learning systems.

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