

Solar Thermal Installation Learning System

950-STF1

GT

GREEN
TECHNOLOGY



950-STF1

FAULTPRO
COMPUTER-BASED FAULT INSERTION SOFTWARE



Interactive Multimedia Curriculum
and Student Reference Guide

Learning Topics:

- Mechanical Installation
- Fluid System Installation
- Electrical Installation
- Copper Tubing
- PVC Piping
- Soldering
- Solar Collectors
- Differential Controllers
- Centrifugal Pumps
- Heat Exchangers
- Solar Storage Tanks
- Expansion Tanks
- Control Valves
- Pressure/Temperature Valves
- Instrumentation

The Solar Thermal Installation Learning System (950-STF1) teaches students the installation and commissioning of closed loop and open loop solar thermal systems for commercial and residential applications. Students will learn how to install systems by selecting, preparing, mounting and connecting solar thermal components using copper tubing, PVC piping, and electrical wiring. Students will create and commission complete working systems, just as they would do on the job. Solar Thermal Installation supports the NABCEP (North American Board of Certified Energy Practitioners) test for Certified Solar Thermal System Installer.

Solar Thermal Installation includes all components needed to develop hands-on, job-ready skills. This 950-STF1 workstation has been designed to be an effective, self-contained, and durable learning device. Soldered components are supplied with unions and some preassembled piping to enable them to be reused by multiple student classes and minimize consumable costs. Amatrol uses components that learners will find on-the-job in order to give the best opportunity to build confidence and industrial competencies.



Technical Data

Complete technical specifications available upon request.

Mobile Technology Workstation

Amatrol recommends Component Circuit Panel
Centrifugal Pumps (2)
Heat Exchanger
Differential Controller
Temperature Probe
Solar Storage Tank
Drainback Tank
Expansion Tank
Valve Package
Instrumentation Set
Solar Collectors (2)
Fault Insertion System
20152 Sheathed Banana Lead Set
Multimedia Curriculum (M20102)
Teacher's Assessment Guide (C20102)
Installation Guide (D20102)
Student Reference Guide (H20108)

Additional Requirements:

Computer, see requirements: <http://www.amatrol.com/support/computer-requirements>
95-ST51 Solar Thermal Sun Simulator
95-STCS1 Solar Thermal Charging Station

Additional Recommendations:

95-STW1 Solar Thermal Cold Water Supply
Station for water cooling where utility supply
not available
950-SC1 Solar Concepts for basic concept
preparation.

For outside use, Amatrol recommends the 95-SIP
Solar Instruments Package.

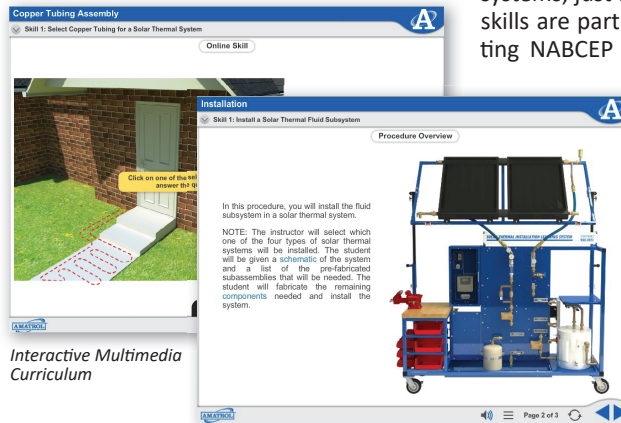
Real-World Training Installing and Commissioning Thermal Systems

The 950-STF1 includes a mobile workstation with solar thermal components; solar thermal collectors; PC-based interactive, multimedia student curriculum; and teacher's guide. The mobile workstation is equipped with shadow boards for component storage, a benchtop work surface and vise for tubing preparation, and mounting surface for assembly of solar thermal systems. Installation skills are performed quickly and all-inclusive at the workstation with the use of bench-top workspace, table vise, and system installation panel. Amatrol also includes a digital differential controller that features many programming capabilities which allows learners to practice programming the more sophisticated thermal systems that they are likely to encounter.



Exceptional Interactive Curriculum and Hands-On Skills

This learning system provides a platform where students install real world systems using components commonly found in commercial and residential environments. Students select materials, solder and cut copper tubing, cut and glue PVC pipe, and run wire to assemble working systems, just as they would do on the job. These skills are part of the preparation process for getting NABCEP certification. The 950-STF1 allows students to specialize in one of four different applications of solar thermal installation, and it teaches installation and commissioning of closed loop pressurized solar thermal systems. Option models 95-STF2 and 95-STF3 expand the learning to teach three more systems, including: closed-loop drainback, open-loop auto-draindown, and open-loop manual draindown.



Interactive Multimedia Curriculum

Student Reference Guide

A sample copy of the Solar Thermal Installation Student Reference Guide is also included with the system for your evaluation, along with Interactive Multimedia. 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 this course by providing a condensed, inexpensive reference tool that learners will find invaluable once they finish their training making it the perfect course takeaway.

