Automotive Troubleshooting Trainers

Educational Training Equipment for the 21st Century

Bulletin 194-5

Purpose

The Hampden **Model H-AUTO-AH** Automotive Heating Simulator demonstrates the principles of operation and troubleshooting techniques on an automobile heating system. The trainer panel is divided into four distinct sections.

First, middle left side of the panel contains the interior and engine compartment with test buttons and lamps for testing specific systems in the automobile, such as the blower, radiator, coolant reservoir, radiator hose, heater core, electric fan and thermostat.

Second, the top left of the panel contains the meter section, which contains a pressure gauge, temperature gauge, voltmeter, and an ohmmeter for circuit tests.

Third, the bottom left of the trainer contains the heater controls found in a typical automobile. There are many types of automobile electrical systems in service, each with their own unique parts.

Fourth, the right side of the panel contains a ladder diagram of the automobile's electrical systems with test buttons and for each component used in the system.

This trainer assumes standard parts that might be encountered in the field, so the troubleshooting, diagnostics, and repair techniques are similar for all automobile electrical systems.

The computer screen provides visual feedback on automotive systems with the following components:

- · Gear selection
- Ignition switch
- · Blower speed Indicator
- · Blower vent
- · Brake pedal

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- Compressor state
- Heater duct door operation.
- Air Management System

H-AUTO-AH Automotive Heating Simulator



Model H-AUTO-AH Automotive Heating Simulator Dimensions: 25"H x 24"W x 12"D Shipping Weight: 110 lbs

Testing Capabilities

Hampden's **Model H-AUTO-AH** demonstrates procedures used to repair automotive heating systems through the use of mechanical and electrical test points designed into the automotive heating simulator.

Real-Time Performance

Hampden's line of **Computer Assisted Panel Instruction Modules** have been designed to provide realistic System Operation & Troubleshooting functions to virtually *ANY CLASSROOM!* Each module's front panel is silkscreened with a complete schematic & pictorial layout of all system operations and combined with actual test-point pushbuttons, LEDs and meters.

All units are controlled via a PC computer using supplied Hampden software and USB I/O Interface.

Realistic Problem Solving in the Classroom

All Instruction Modules have the capability of inserting system specific Mechanical & Electrical malfunctions. This gives students the added experience of resolving realistic problem situations which would otherwise be very difficult for an instructor to create in a classroom.

Standard Features

- Schematic and Pictorial Test Points
- · Specification Chart
- Improper Equipment Use Warning
- Component Isolate Switch
- Malfunction Indication
- Windows Digital Control System
- Duplex Socket for Power
- Power Indicator Lamp

All Hampden units are available for operation at any voltage or frequency

