Educational Training Equipment for the 21st Century

Digital Instruction Modules

Bulletin 193-110-1B

Model H-DACS-CSI

The Hampden Model H-DACS-CSI Digital Air

Conditioner Simulator serves to demonstrate the principles of operation and troubleshooting of a currentmodel, electrically powered air conditioner. Simulator includes H-LTCS Laptop Computer.

Additional Features:

- Suction and Discharge Pressure Gauges
- CHARGE (refrigerant) control
- Two large identified air flow checks
- Motor disconnects
- Active circuit breaker
- Complete action thermostat
- Separate meters for voltage, watts, resistance readings
- Ohmmeter/line voltage interlock
- Complete voltage/resistance test points
- HPCO and LPCO compressor cycling

Typical Malfunctions:

- Open primary in low voltage transformer
- Break in secondary winding of low
- voltage transformer
 Auto position contacts corroded
- Open CONT position in the fan switch
- Compressor motor shorted to case
- Common contact broken in FAN switch
- Defective blower motor run capacitor
- Burned out start winding in blower motor
- Run winding open in blower motor
- Run cap. for condenser in motor defective
- Open start winding in condenser fan motor
- Condenser fan motor run winding burned out
- Run capacitor for compressor motor open
- Start winding burned out in compressor motor
- Open run winding in compressor motor
- Damaged coil in blower motor relay
- Burned out coil in contactor relay
- "Upper" points dirty in contactor relay
- Low pressure cut-off contacts defective

H-DACS-CSI Digital Air Conditioner Simulator



H-DAACS-CSI Digital Automotive Air Conditioning Simulator

Model H-DAACS-CSI

The Hampden **Model H-DAACS-CSI** Digital Automotive Air Conditioning Simulator demonstrates the principles of operation and troubleshooting of current factory installed AC systems. Simulator includes H-LTCS Laptop Computer.

Additional Features:

- Suction, discharge, pressure and temperature gauges
- Built-in voltage and continuity probes
- Adjustable ambient temperature control
- Three-speed fan control and LPCO control
- Adjustable RPM control

Typical Malfunctions:

- Slipping belt
- Open clutch coil
- Worn clutch facing
- Defective LPCO switch
- Faulty power control module
- Blown fuse
- Resistor block
- Low pressure switch open
- Clogged evaporator
- Fan motor open
- Fan switch common pitted
- High pressure switch open
- Compressor not operating
- Refrigerant leak



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



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