Digital Instruction Modules

Educational Training Equipment for the 21st Century

Bulletin 193-112-1B

Model H-DOHS-CSI

The Hampden **Model H-DOHS-CSI** Digital Oil Heating System demonstrates a complete and dynamic aid for adjustment, analysis and troubleshooting of oil fired hot water heating systems. Normal operation and 21 different malfunctions may be simulated. Simulator includes H-LTCS Laptop Computer.

Additional Features:

- Draft Meter, Overfire/Stack/Chimney
- Oil Tank Level Indicators
- Spark Indicator
- Burner Air Flow Control
- Adjustable Draft Regulator
- Boiler Temperature/Pressure
- Smoke Test Meter
- Two Zone Circulation Pumps
- Flue CO2 Meter

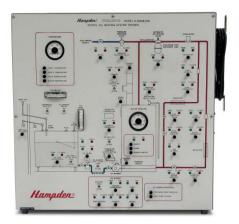
Burner Suction/Discharge Meters

- Electrode Adjustment
- Two Zone Thermostats & Thermometers
- Water Pressure Valves

Typical Malfunctions:

- Primary control inoperative
- Fuel pump defective
- Fuel tank empty
- Nozzle clogged
- Defective Switching Relay
- Zone 2 circulating pump motor defective (mechanical)
- Improper flue gas temperature indication
- Unjustified customer complaint
- Defective Emergency Switch
- Defective Cad Cell
- Electrode gap too wide

H-DOHS-CSI Digital Oil Heating Simulator



H-DOHE-CSI Digital Oil Heating Electric Simulator

Model H-DOHE-CSI

The Hampden **Model H-DOHE-CSI** Oil Heating Electric Simulator provides a complete and dynamic aid for electrical analysis and troubleshooting of oil fired hot water heating systems. Simulator includes H-LTCS Laptop Computer.

Additional Features:

- Cad Cell Tester
- Complete Primary Control circuit
- Spark Indicator
- Water Temperature Gauge
- Dynamic Temperature Variation
- Ohmmeter/Line Voltage Interlock
- Schematic and Pictorial Test Points
- Malfunction Indication
- Specifications Chart
- Flame Indicator
- Boiler Low Temperature Limit Switch
- Light Identified Motor/Relay Action
- Four Scale Multimeter
- Two Water Circulation Pumps
- Complete Four Relay Control Circuitry
- Two Different Meter Types
- Electrode Isolation
- Two Zone Thermostats&Thermometers

Typical Malfunctions:

- Zone 2 fan motor open
- Zone 2 fan aquastat broken
- Emergency switch contacts corroded
- 220° Hi-Limit switch open
- 24V thermostat transformer winding open
- K1 coil discontinuous
- K2 coil broken
- Zone 2 temperature switch contacts bad
- Zone 1 circulation pump open
- Zone 2 circulation pump open
- Zone 1 temperature switch shorted
- 140° Lo-limit switch stuck
- Cad cell broken
- Burner motor run winding shorted

Hampadan:

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





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