

Heating Trainers

Educational Training Equipment for the 21st Century

Bulletin 229-107B

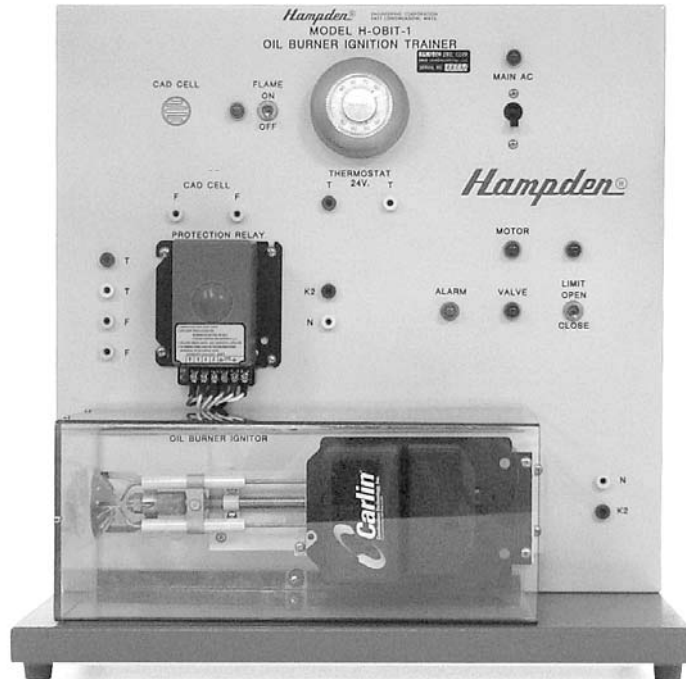
H-OBIT-1 Oil Burner Ignition Trainer

Purpose

The Hampden **Model H-OBIT-1** Oil Burner Ignition Trainer has been developed to investigate the fundamental electrical circuits utilized in a domestic oil burner.

This apparatus permits the student to move from classroom theory to hands-on application. The student can interconnect the various elements, determine intermittent or interrupted ignition control and proper adjustment of the electrode position and electrode gap in relation to the nozzle.

This unit incorporates a double interlock device, which requires the insertion of a Lexan protection cover prior to ignition test.



Hampden **MODEL H-OBIT-1** Oil Burner Ignition Trainer
Dimensions: 20"H x 20"W x 12"D
Shipping Weight: 100 lbs.

Specifications

Base and Panel:

Base is 14 gauge furniture stock steel finished in textured instrument tan baked enamel. Panel is 14 gauge furniture stock steel finished in gloss white baked enamel with silkscreened nomenclature.

Base Feet:

Non-mar

Component Panel:

Main one-pole electromagnetic circuit protector switch, pilot light, cad cell, thermostat, protectorelay control, primary transformer and ignition assembly with nozzle tube.

Safety Board:

Lexan cover with dual interlocks.

Receptacles:

Hampden HR-1S socket receptacles

Cord Set:

- Hampden PP-1 12" Stacking Cord, 4 required
- Hampden PP-1.5 18" Stacking Cord, 2 required

Courseware:

Hampden Operating Instructions manual

Supply Voltage:

120VAC single phase 60Hz via 3/c 6-ft. Cord

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

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H-OPT-1 Oil Pump Trainer

Purpose

The Hampden **Model H-OPT-1** Oil Pump Trainer has been designed to familiarize the student with the principle operation of a rotary fuel pump for oil burners. This unit also visually demonstrates nozzle spray patterns.

Description

The Hampden **Model H-OPT-1** Oil Pump Trainer consists of one oil burner single-stage pump complete with motor, oil tank, pressure gauge, vacuum gauge, pipe and fitting for one-pipe and two-pipe systems, and one clear nozzle chamber complete with two interchangeable nozzles.

The Hampden Oil Pump Trainer covers experiments in the following areas:

- Oil Burner Systems - one-pipe and two-pipe
- Air Bleed Procedures - one-pipe and two-pipe
- Pressure Regulation
- Nozzles - 60 & 80

The unit comes complete with operating instructions manual.



MODEL H-OPT-1 Oil Pump Trainer
Shipping Weight: 50 lbs.
Cubic Feet: 7

H-CCT Cad Cell Demonstrator



MODEL H-CCT Cad Cell Demonstrator
Dimensions 7¼"H x 9½"W x 7¼"D
Shipping Weight: 20 lbs.

The Hampden **Model H-CCT** Cad Cell Demonstrator has been developed to investigate photo conductivity and its application to oil fired furnaces. The Cadmium Sulfide cell (cad cell) changes its electrical conductivity in the amount of exposed radiant energy. In darkness, its resistance is high so it conducts little current, while in bright light, its resistance is low so it conducts more current. Cad cells are used as flame detectors for oil fired furnaces because of their ability to "see" visible light.

The **Model H-CCT** Cad Cell Demonstrator consists of a portable enclosure complete with carrying handle, a 6' power cord, and pluggable cad cell.

Mounted within the cad cell demonstrator are the following components:

- Industrial Grade Transformer
- Relay
- Pilot Light
- Transfer Switch
- Cad Cell
- Cad Cell Resistance Check

The cad cell cord assembly consists of:

- Cad Cell
- Cad Cell plug jack
- 5' cord

Complete operating instructions are supplied.

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

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