

A/C-Heat Pump-Controls Trainers

Educational Training Equipment for the 21st Century

Bulletin 228D

H-HPT-1A

Heat Pump Controls Trainer



MODEL H-HPT-1A

Dimensions: 39½"H x 39"W x 20½"D
Shipping Weight: 120 lbs

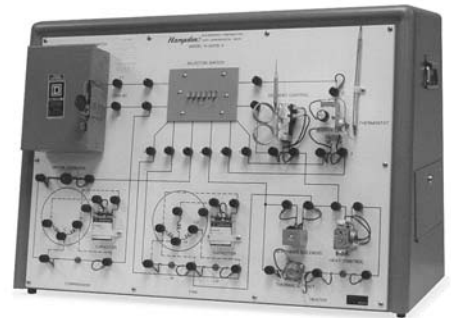
The Hampden **Model H-HPT-1A** Heat Pump Controls Trainer provides students with the opportunity to operate, test, and troubleshoot the electrical controls found in large heat pump installations. It is furnished completely wired and tested. Control components are surface mounted for visibility and accessibility. A complete circuit diagram and numerous test points are provided on the panel. Twenty-four fault switches allow the instructor to introduce a variety of malfunctions for student troubleshooting experience. The student never applies power to any test points. When the unit is energized, realistic system voltages display across actual and simulated devices. Combined audio and visual signals indicate a running compressor. When de-energized, all components and devices may be easily isolated for resistance and continuity tests. Power required: 120V AC 1 ϕ 60Hz.

To order this unit for mounting on a Mobile A-Frame mobile stand (see Bulletin 246-1), specify **Model H-HPT-1A-MCI-1000**.

H-ACCS-2

Air Conditioner/Heat Pump Controls Trainer

The Hampden **Model H-ACCS-2** Air Conditioner/Heat Pump Controls Trainer provides students with the opportunity to operate, test, and troubleshoot the electrical controls of a motel-type air conditioning unit that includes a heat pump. It contains the actual control components and devices. The compressor, fan motors and heater are simulated with suitable sized resistances. The trainer is furnished completely wired and tested. The twenty fault switches located behind a lockable panel permit the instructor to introduce a malfunction for student troubleshooting experience. Power is never applied externally to any of the binding post test points. When the trainer is energized, realistic voltages appear across the actual and simulated devices. When de-energized, all components and devices may easily be isolated for resistance and continuity tests. Power required: 120V AC 1 ϕ 60Hz.

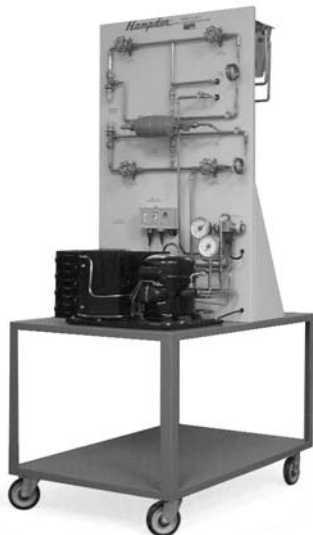


MODEL H-ACCS-2

Dimensions: 24½"H x 36"W x 16"D
Shipping Weight: 100 lbs

H-HP-3

Heat Pump Demonstrator



MODEL H-HP-3

Dimensions: 60"H x 30"W x 28"D
Shipping Weight: 375 lbs

The Hampden **Model H-HP-3** Heat Pump Demonstrator provides students with the ability to observe and operate a full-size combination air conditioning/heat pump unit. It is a combination system that uses the refrigeration cycle to either extract heat from, or deliver heat to, a comfort conditioned area. A readily detachable box encloses the area to be cooled/heated. When the thermostat is set for cooling, the enclosed coils act as an evaporator. A resistance heater provides additional heat load, as desired. For heating, the same coil acts as a condenser, discharging heat into the area. Power required: 120V AC 1 ϕ 60Hz.

The **Model H-HP-3** is charged with a non-CFC refrigerant.

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

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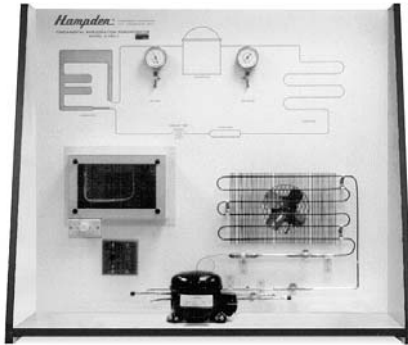
Refrigeration-Compressor Trainers

Educational Training Equipment for the 21st Century

Bulletin 228-1D

H-FRD-1

Fundamental Refrigeration Demonstrator



MODEL H-FRD-1

Dimensions: 39½"H x 39"W x 20½"D
Shipping Weight: 155 lbs

The Hampden **Model H-FRD-1** Fundamental Refrigeration Demonstrator provides students with the opportunity to observe the operation of a domestic refrigerator refrigeration system. It is a complete, ready-to-operate refrigeration system. The refrigeration cycle is silkscreened on the upright panel for easy identification of components and functions. The temperature control adjustment governs the on and off compressor cycles in accordance with the cold box heat load. Power required: 120V AC 1 ϕ 60Hz.

The **Model H-FRD-1** is charged with a non-CFC refrigerant.

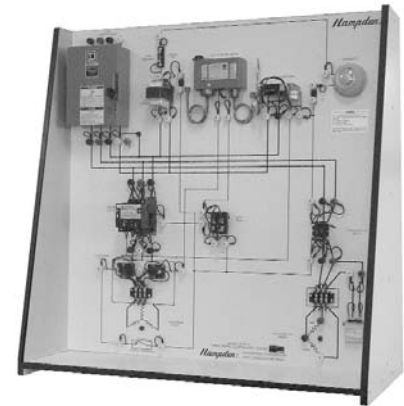
To order this unit for mounting on a Mobile A-frame stand (see Bulletin 246-1), specify **Model H-FRD-1-MCI-1000**.

H-TPCT

Three-Phase Compressor Controls Trainer

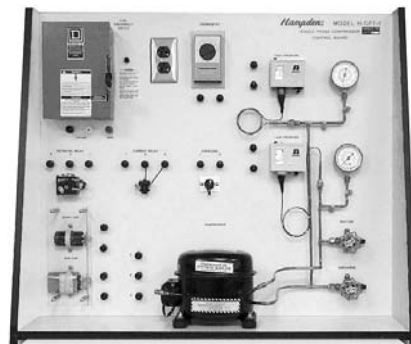
The Hampden **Model H-TPCT** Three-Phase Compressor Controls Trainer provides students with the ability to operate, test, and troubleshoot the electrical controls of a three-phase commercial single-package air conditioner. It contains the actual components found in commercial units with the exceptions of the compressor motor and fan motor, which are simulated. All components function exactly as they would on the job. The instructor has the ability to insert up to twenty five faults via toggle switches on the rear of the trainer. Students never apply power externally to any of the test points. When the trainer is energized, realistic voltages appear across the actual and simulated devices. When de-energized, all components and devices may easily be isolated for resistance and continuity tests. Power required: 120V AC 1 ϕ 60Hz. Three-phase power to operate the trainer is obtained from a 1-phase to 3-phase converter.

To order this unit for mounting on a Mobile A-frame stand (see Bulletin 246-1), specify **Model H-TPCT-MCI-1000**.



Model H-TPCT

Dimensions: 39½"H x 39"W x 20½"D
Shipping Weight: 120 lbs



MODEL H-CPT-1

Dimensions: 31½"H x 37"W x 18"D
Shipping Weight: 155 lbs

The Hampden **Model H-CPT-1** Single-Phase Compressor Trainer provides students with the opportunity to connect a single-phase compressor in various wiring configurations and varying suction and discharge pressures to produce realistic operating conditions. It contains a ½ HP hermetically-sealed compressor similar to those used in small domestic refrigerators, dehumidifiers, water coolers, etc. Pressure-sensitive connections are made from the suction and discharge lines to gauges and to low and high pressure cut-outs. Students interconnect the compressor with the various control devices, including starting and running capacitors, potential and current relays, cutout switches, thermostat, and an overload switch. Hand valves permit the regulation of pressures for realistic operation. Furnished complete with cords. Power required: 120V AC 1 ϕ 60Hz.

To order this unit for mounting on a Mobile A-frame stand (see Bulletin 246-1), specify **Model H-CPT-1-MCI-1000**.

H-CPT-1

Single-Phase Compressor Trainer

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

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