# **A/C-Heat Pump-Controls Trainers**

Educational Training Equipment for the 21st Century

Bulletin 228J



MODEL H-HPT-1D Dimensions: 36"H x 36"W x 13"D Shipping Weight: 265 lbs

## H-HPT-1D Heat Pump Controls Trainer

The Hampden **Model H-HPT-1D** 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 1Ø 60Hz.

#### Option

• HMC-3 Mobile Cart (See Bulletin 263-120)

### H-ACCS-2A Air Conditioner/Heat Pump Controls Trainer

The Hampden **Model H-ACCS-2A** 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 1Ø 60Hz.



MODEL H-ACCS-2A Dimensions: 36"H x 36"W x 11"D Shipping Weight: 210 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 1Ø 60Hz.

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

The Model H-HP-3W Heat Pump Demonstrator with water cooled condenser

**CDL** - Computer Data Logging Option

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



