H-HEAT-2A

Air Distribution System Trainer

Purpose

The Hampden **Model H-HEAT-2A** Air Distribution System Trainer is designed to acquaint the student with the fundamentals of air movement found in a typical residential dwelling. The trainer aids the student in acquiring a better understanding of static pressures, back drafting, air leakage and thermal boundaries. The trainer shows the student how air moves under various conditions created in a residential dwelling.

Description

Operating from any 120 volt outlet, this trainer is suitable for classroom demonstration and/or individualized instruction. An instructor manual is supplied to explain trainer operation.

With the included fog generator the students will be able to see the path of the air flow throughout the house. The house is fitted with (5) pressure taps located in critical areas to enable the students to take pressure readings and calculate air loss.

Specifications

The **H-HEAT-2A** is constructed of 3/8" thick clear Lexan, allowing for 100% visual accessability of every room inside the trainer. With this unique feature the student will be able to see the smoke flow throughout the house into any air gap. The trainer is divided into 11 rooms, with one main LED lighting strip illuminating the entire trainer. The trainer has 3 floors, floor #1 includes a garage, utility room, kitchen, dining room and living room. Floor #2 includes a bathroom, and four bedrooms. Floor #3 is the attic.

The trainer includes a simulated HVAC system that consists of 100% clear duct work, a blower fan, return register and 7 supply registers. Smoke can be injected into the clear ducts allowing the student to see the actual flow of air coming out of the duct, flowing throughout the house and out any air gap or exhaust point.

The utility room includes an exhaust fan to simulate a dryer exhaust and also includes a simulated gas water heater that exhausts through the side of the house. The kitchen includes a simulated range hood exhaust. The living room includes a simulated fire place with a flue that exits through the roof. The bathroom includes a simulated exhaust fan.

Model H-HEAT-2A Air Distribution System Trainer
Dimensions: 33"H x 38"W x 28"D
Shipping Weight: 300 lbs.

Incorporated into the trainer is a high volume pressurization fan that will allow the student to fully pressurize the house and take pressure readings via the included parts. Air gaps can be inserted during the pressurization process to show the effect a poorly weatherized house has on efficiency.

The house includes 4 hinged panels that allow access to the inside of the house. This allows the student to open and close the interior doors to show the effect on air flow and circulation.

The roof/attic includes ridge vents and soffit vents to show the flow of air through the roof.

The trainer is mounted on a steel base which includes: switches for the lights and fans, and a circuit breaker protected power supply. All the interior components run on 12VDC for safety. The fog generator is a separate unit and can be exhausted in 4 locations, at the water heater, in the garage, in the living room, and into the HVAC duct.

A Digital Manometer is also included.

Learning Objectives:

- Pressure Diagnostics
- Duct Leakage Testing
- Back Drafting
- Thermal Boundaries

Option

- **H-HEAT-2A-MT** Mobile Table

H-HEAT-2A Shown with Option
H-HEAT-2A-MT Mobile Table
Dimensions of Mobile Table: 34"H x 42"W x 24"D

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

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