

Digital Power Simulators

Educational Training Equipment for the 21st Century

Bulletin 188B

H-188-1

Electrical Generation Fundamentals Trainer

Purpose

The Hampden **Model H-188-1** Electrical Generation Fundamentals Trainer is designed to demonstrate the principles of electrical power generation. The trainer provides an interactive control room experience, that, coupled with the Hampden Power Plant series of trainers, depicts the relationships that an operator must master in order to confidently operate modern generating equipment. Practice in paralleling machines of various sizes is easily accomplished without using actual equipment or more expensive full-scale simulators.

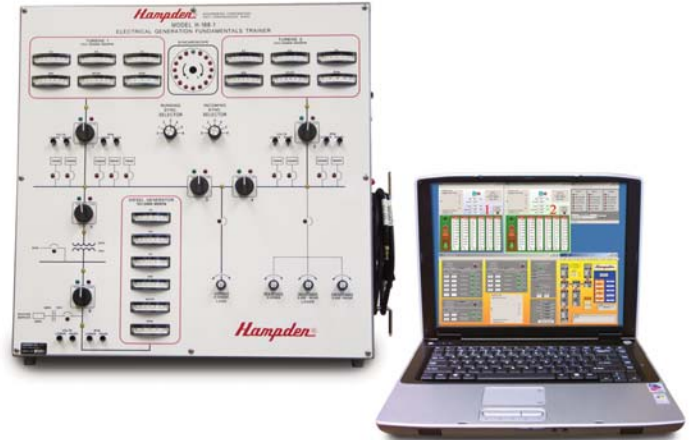
Description

The Hampden **Model H-188-1** Electrical Generation Fundamentals Trainer is a fully computer-controlled unit designed to interface with a provided Laptop Computer.

A Windows based computer provides operator control and interaction. A synchroscope display and a phase angle display represent the phase difference between running and incoming sources.

A graphic representation of how load is shared by two machines of different sizes is shown using a generator characteristics curve. The relationship between real load and reactive load is displayed using meters and by a pictorial diagram of the power triangle.

A variety of inductive, resistive, and capacitive loads can be turned on and off, reinforcing the effects of reactive load and how power factor can change. The trainer easily supports instructor demonstration, student practical exercises, and self-study programs.



Hampden **Model H-188-1** Electrical Generation Fundamentals Trainer

The courseware covers all aspects of operation including:

- Energize a dead bus.
- Perform iso-synchronous operations.
- Correctly perform paralleling operations.
- Demonstrate the operation of generators in parallel and load sharing.
- Observe generator response to inductive, resistive, and capacitive loads.
- Calculate power factor.
- Observe diesel generator auto-start and loading.

Complete your Power Plant training with these additional Hampden Digital Simulators



MODEL H-185-2A
Advanced Boiler Trainer



MODEL H-186-1
Combustion Technology Simulator



MODEL H-187-1
Turbine/Generator Technology Trainer

Features

- Analog meters depicting amps, megawatts, megavars, kilovolts, frequency and speed.
- Realistic, three-position breaker control switches.
- Breaker controls are interlocked with the sync-selector switch and phase angle display.



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

Hampden
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