Electrical Circuit Trainers

Educational Training Equipment for the 21st Century

Bulletin 247F

Purpose

To provide the sensors, monitors, and protection devices for learning the meaning of ground fault currents and the code requirements for ground fault protection.

Description

The **Model H-GFP-2** Ground Fault Protection Demonstrator contains all of the facilities required to simulate and monitor ground fault currents and the means of providing ground fault protection on both 3ϕ feeder circuits and 1ϕ branch circuits.

The 3ϕ feeder circuit includes: a three-pole shunt trip circuit breaker; current monitor; control transformer; ground fault sensor; test panel with tripped, reset, test, and run lighted pushbuttons; adjustable load for ground fault insertion; AC ammeter for monitoring ground fault current; and an output receptacle for load connections.

H-BACT-3

Security Alarm Circuits Trainer



MODEL H-BACT-3

Dimensions (including mobile A-Frame): 72"H x 51"W x 31"D
Shipping Weight: 300 Lbs.

The 1 ϕ branch circuit includes: single-pole Quicklag GFCI circuit breaker; adjustable load for ground fault insertion; AC milliammeter for monitoring ground fault current; and load connections consisting of output jacks and a duplex receptacle.

Components are mounted on 3/4" thick white melamine covered wood core panel, 42"H x 48"W, secured to mobile A-frame, **Model MCI-1000** (See Bulletin 246-1). Power input is 120/208 volt, 3ϕ by means of 5-wire receptacle and power cord, provided. Furnished complete with interconnecting cords.

MODEL H-GFP-2

Dimensions (including mobile A-Frame): 76"H x 51"W x 31"D Shipping Weight: 300 Lbs.

Purpose

The **Model H-BACT-3** contains all of the actual components found in standard residential and industrial security systems. The unit provides the student with experience in designing, wiring, checking out, and troubleshooting burglar alarm circuits.

Description

All of the sensing, alarm, and control components are mounted on the face of the Hampden **Model H-BACT-3**, where their wiring terminates in heavy-duty binding posts. The student uses banana-plug leads (provided) to interconnect the components into operating security systems.

Control Components:

- Control/Communicator with transformer and cabinet
- Main 120V AC control with pilot light, circuit breaker, switch, box, and photo relay reflector
- · Piezo alert alarm
- · Motion detector

H-GFP-2

Ground Fault Protection Demonstrator



- · Strobe light blue lens
- · Outside light
- · External siren with cabinet
- · Key pad
- · Audio switch
- · Telephone jack
- · Smoke detector
- · Infrared photo relay
- · Remote key plate tamperproof
- · Window switch assembly (4) with bracket
- · Magnetic switch with bracket
- · Door switch (2) with bracket
- Duplex receptacle
- · Relay, N.O.
- · Low voltage AC supply with fuse holder
- Resistor, end of line (6)

Components are mounted on 3/4" thick white melamine covered wood core panel. The panel is mounted on a mobile A-frame, **Model MCI-1000** (See Bulletin 246-1), and a power outlet supplied through a 10 ft. 120V, single-phase power cord.

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



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