

H-ETST-1 Electronic Telephone System Trainer

Purpose

The Hampden **Model H-ETST-1** Electronic Telephone System Trainer was developed for student training and troubleshooting of state-of-the-art electronic telephone systems. This trainer permits the student to move from classroom theory to hands-on troubleshooting with current technologies.

Specifications

Components are mounted on a wood-core melamine panel. The following components are mounted on the panel:

- Electra Elite, IPK Key Service Unit (KSU) containing the electronic switching circuits, CPU, Electronic Telephone Units (ETU) cards, power supply, and backup CPU battery pack
- Modular Station Jacks (13)
- 66M1-50 Punch Block (3)
- 110 - 50 Punch Block (2)
- DTR-1-1 (SLTA) Phone (2)
- DTH-8D-1 Digital Phone (2)
- DTH-8-1 Digital Phone
- 110-50 Replacement Plugs
- Power Input 1 ϕ AC, 50/60Hz.

Faults

The **Model H-ETST-1** is provided with eight instructor switched faults located in a metal enclosure with locking access cover, and three non-switched faults. Faults included:

- opens
- shorts
- reversals
- ground noise
- cross wired
- missed connections



MODEL H-ETST-1
Electronic Telephone System Trainer

Optional Accessories

- H-ETST-1T Electronic Telephone Installers Tool Kit
- H-ETST-1050 Telephone Product Analyzer

Topics Covered

Courseware is: *Telephone Repair Illustrated* by Stephen J. Bigelow which explores the fundamentals of signal transmission and switching and includes many examples and problems.

Topics included:

- Telephone Technology
- Components
- Service Guidelines
- Using Test Equipment
- Wiring Installation and Repair
- Classical Telephones
- Electronic Telephones
- Answering Machines
- Cordless Phones
- Cellular Phones
- Troubleshooting Charts

Accessories

1. Punch Down Tool
2. Cable Splice Kit (Scissors and Knife)
3. Tone and Probe Kit
4. Spool - Cross Wire (1 twisted pair) Red/White
5. Spool (Box) CAT-3 Riser COMM 24 AWG 4 Pair 1000'
6. Tool Box
7. Bridging Clips for 66M1-50 Blocks
8. IPK Programming Manual
9. Telephone Line Cord with Fault
10. Hampden H-444-1 Multimeter
11. H-ETST-1 KSU Documents CD-ROM
12. Hampden Operating Instruction Manual



MODEL H-ETST-1
Accessories

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

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H-ETST-1T Electronic Telephone Installers Tool Kit

Description

The Hampden **Model H-ETST-1T** Telephone Installers Tool Kit consists of one each of the following components:

- Tool Pouch
- Tool Belt
- 10' Steel Tape Measure
- Lineman's Test Set (Butt Set)
- TAC Test Apparatus
- 77A Line Tracer
- 714 Automatic Impact Tool
- 6" Long Nose Pliers
- 6" Diagonal Cutters
- 1/8" x 4" Insulated Standard Screwdriver
- 1/4" x 4" Insulated Standard Screwdriver
- 1/4" Insulated nutdriver
- 5/16" Insulated nutdriver
- Electrician's Scissors
- Alignment Tool (Spudgger)
- Pick Tool
- Static Wrist Guards
- Cable Strippers (ring tool)
- Tool Box

Hampden H-ETST-1050 Telephone Product Analyzer

Specifications

Transmit and receive frequencies from 1.665 Mhz to 49.990 Mhz

Transmitter

Frequency selection: 2 digit dedicated channel selection
Generating system: Crystal-controlled phase-locked loop
Output level: continuously variable plus step attenuation
RF temperature stability: $\pm 0.001\%$

Receiver

Frequency selection: 2 digit dedicated channel selection
Frequency error: Compared to selected channel frequency displayed on analog meter
Modulation of received RF: displayed on analog meter
Guard Tone Rejection: Filter and switch allow observation or rejection of guard tone modulation
Deviation/audio monitoring: output provided for oscilloscope. Analog metering plus built-in speaker

Audio Output

Range: 100Hz to 10kHz, continuously variable
Output: 0 to 1V, continuously variable

1 kHz Generator

Level Meter

Ring Generator

Continuity Tester

Automatic Number Identification

Features

- For diagnostic testing, servicing and calibration of corded and cordless telephones, answering machines and automatic dialers
- Measures r-f frequency error and modulation deviation in cordless phone systems
- Verifies pulse and Touch Tone® numbers
- Measures relative r-f power levels and receiver sensitivities in cordless phone systems
- Provides continuity check of telephone and handset cords
- Power line load simulator provided for base portion of cordless phones
- Includes audio generator
- Provides adjustable ring voltage generator
- Monitors audio input and output
- Built-in adjustable DC power supply for powering of units under test and repair



MODEL H-ETST-1050 Telephone Product Analyzer
Dimensions: 7.3"H x 17.8"W x 11.6"D (19 x 45 x 29 cm)
Shipping Weight: 25 lbs. (9.5kg)

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

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