# **Telephony**



# **Making the Right Call**

The telephone is probably the most common electronic device found in the world today. Try to remember a day that you did not use a telephone or hear that old familiar ring. Telephones are so much a part of our lives that most people take them for granted... until they don't work. Telephone systems have become so diversified that today's technicians find themselves installing and repairing many different types of local, long distance, global, and mobile telephone systems.

The E & L-Nida Telephony courseware prepares technicians for system level maintenance by integrating theoretical concepts with hands-on real-world applications. Developed from industry input and standards, the courseware teaches a broad spectrum of subjects from basic telephone equipment to complete telecommunications systems. The modular format of the E & L-Nida Telephony courseware allows you to provide your students with just the right material to fit your programme.

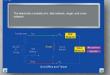
# E & L-Nida Telephony

The E & L-Nida Telephony courseware introduces students to the broad field of telecommunications and provides an in-depth look at telephone circuits. When used with the Model 130E Test Console, the courseware provides experiments that use real telephone and communications circuitry to reinforce theoretical principles. Automatic faulting of circuit boards provides skills training in troubleshooting simple telephone systems. Telephone circuits can be combined with optional modulation, multiplexing, and transmission boards sets to create a working telephone system capable of connecting students across the classroom or across the campus.













## **Topics**

#### **Introduction to Communications Systems**

Basic Elements, Limiting Factors, Bandwidth

#### **Telephone Systems**

Local Area, Local Loop, Long Distance System Hierarchy

#### **Telephone Equipment**

Mechanical & Electronic Telephones Local Loop, Signal Measurements

#### **Telecommunications Careers**

Types, Education Requirements, Certifications

#### **Connection Links**

Physical & Atmospheric Links, Attenuation, EMI Metallic, Non-Metallic, & Fibre Optic Links Radio, Microwave, & Satellite Links

#### **Telecommunications History & Terminology**

Innovators, Inventors, and Milestones Terms, Acronyms, Jargon, Symbols, Charts

#### **Networking Systems**

Telecommunications Networks, Switching

#### **Information Systems**

LAN, WAN, & MAN Networks, IR & FR Wireless

#### **Broadcast Systems**

Types, Roles, Global Positioning Systems

#### **Spread Spectrum Modulation**

PN Sequence Generation, Synchronisation

#### Cellular Telephony

Structure, Multiplexing, Mobile vs. Cellular Satellite Systems

### **Supporting Hardware**

- Model 130E Test Console
- Model 4050 Test Instrument Module
- Model 1429 Digital Telephone Circuits Boards Set
- Model 1436 Advanced Telephone Circuits

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