Introduction



House Wiring Simplified teaches the fundamentals of basic, safe house wiring procedures.

In easy-to-understand drawings, **House Wiring Simplified** shows how to install wiring that will serve the lighting, appliance, and equipment needs of today, as well as tomorrow, *safely* and *effectively*. It covers both new homes and older homes.

House Wiring Simplified tells how to determine what wiring is needed and what equipment and materials to use. Because the *National Electrical Code* requirements vary, users are cautioned to check local codes. For example, this text shows the installation of EMT (thinwall conduit) in its installation illustrations. Local variation may allow use of armored cable (BX) or nonmetallic flexible cable.

Review questions are included in this book for these reasons:

- They will help you determine which material you have learned and which material you should restudy.
- They summarize for you many important items with which you should become familiar.

You can see if your answers are correct, by referring to the answers in the back of the book. Be fair with yourself. Answer the questions (on a separate sheet of paper) before you refer to the correct answers.

Home electrical systems are continuously improved by advancements in technology and changes in code requirements. This 15th edition of **House Wiring Simplified** includes updated information on the latest switches, receptacles, and wire connectors.

House Wiring Simplified is intended for students in high school, vocational school, college, apprentice training, and adult classes. It will also enable homeowners to handle many residential wiring jobs they were reluctant to tackle before.

Floyd M. Mix

SAMPLE

Contents

Unit 1 **Electrical Terms** 7
Introduction, Voltage, Current, Resistance, Ohm's Law, Power, Circuit, Switch, Direct Current, Alternating Current

Unit 2 **Conductors** 11
Introduction, Wire Size and Color, Nonmetallic and Armored Cable, Cords, Wiring Must Meet Codes

Unit 3 **Conduits and Raceways** 21
Introduction, Rigid Steel Conduit, Thinwall Steel Conduit, Aluminum Rigid Conduit, Flexible Steel Conduit, Rigid Plastic Conduit, Surface Raceways

Unit 4 **Boxes and Covers** 27
Introduction, Box Construction, Box Covers or Plates

Unit 5 **Switches** 33
Single-Pole Switches, Three-Way Switches, Four-Way Switches

Unit 6 **Outlet Receptacles** 41
Receptacle Types

Unit 7 **Electrician's Tools and Equipment** 47
Introduction, Pliers, Screwdrivers, Drilling Equipment, Sawing and Cutting Tools, Soldering Equipment, Multipurpose Tool, Hammers, Measuring Tools, Fish Wire or Tape, Miscellaneous Tools and Equipment

Unit 8 **Working Safely** 55
Introduction, Shock Effects, Freeing a Victim, Safety Suggestions

Unit 9 **Service Requirements** 59
Introduction, Service Entrance Ratings, Electrical Symbols, Branch Circuits, Building Code Example

Unit 10 **Basic Wiring Systems** 67
Introduction, Sheathed Nonmetallic Cable, Installing Armored Cable, Installing Metal Conduit, Protective Grounding System, Ground-Fault Circuit Interrupters, Arc-Fault Circuit Interrupters

SAMPLE



Unit 11 **Basic Wiring Procedures** 79
Introduction, Color Coding or Polarizing, Three-Wire Circuit, Connecting Wires to Terminals, Connecting Wires, Installing Boxes, Mounting Fixtures, Pulling Wire into Conduit, Circuit Breakers and Fuses

Unit 12 **House Wiring Circuits** 97
Introduction, Installing a switch; Installing a switch at the end of a run; Installing two receptacles on the same circuit; Installing a switch and an outlet beyond a light; Installing two lights on the same circuit; Installing a light controlled by a canopy switch; Installing two lights controlled by separate switches; Installing three-way switches on an end run to control a light; Installing a ceiling light beyond three-way switches along with an always-hot receptacle; Installing a combination of four-way and three-way switches; Installing a split circuit at an outlet; Installing master controls; Installing doorbells and low voltage circuits

Unit 13 **Modernizing Electrical Systems** 119
Introduction, Check Codes, Installing New Outlets, Running Cable around a Door, Installing a Wall Switch, Fishing Cable through a Wall, Lifting Attic Floorboards, Surface Wiring, Outdoor Wiring

Unit 14 **Useful Information** 139
Extension Cords, Reading Electric Meters, Lightbulbs, Simple Specification Form

Dictionary of Terms 147

Answers to Review Questions 155

Index 157

SAMPLE

Safety Rules

Only by learning and faithfully following certain safety rules can the electrician hope to avoid accidents and injury. The basic rules are:

1. Remain alert. **Think** before acting.
2. Avoid quick movements. Work carefully and deliberately. Plan each step of your work.
3. Avoid live work unless absolutely necessary. Disconnect the circuit at its main source, if possible.
4. Make certain a circuit is de-energized. Test it with a test light before beginning work on it.
5. Use tools correctly and for their intended purpose. Use only tools with insulated handles when working on live circuits. Keep tools in good working order.
6. Remove jewelry, rings, watches, and other metal objects or apparel from the body before beginning work.
7. Make sure all electrical equipment is properly grounded.
8. Keep work areas dry and free of debris. If necessary, clear the area of loose material or hanging objects. Cover wet floors with wooden planking. Wear rubber boots or rubber-soled shoes.
9. Wear gloves when possible.
10. Place a rubber barrier or other nonconductive shield around exposed conductors or equipment near the work area.
11. Lift objects carefully. Use the leg muscles. Keep your back straight while lifting.
12. Wear clothing that is neither floppy nor too tight. Loose clothing will catch on corners and rough surfaces, causing unsafe motion. Clothing that binds is uncomfortable and may be just as unsafe as clothing that is too loose.
13. Wear safety glasses when using striking tools.

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