BIBLIOGRAPHY OF TRAINING AIDS

1ST EDITION
SEPTEMBER 1967

COMPiled BY: AIR-CONDITIONING AND REFRIGERATION INSTITUTE • 1815 NORTH FORT MYER DRIVE • ARLINGTON, VIRGINIA 22209
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The Air-Conditioning and Refrigeration Institute, under the leadership of its Manpower Development Committee, compiled and published this Bibliography of Training Aids (training materials; films; and ancillary visual aids) available from member-companies as an industry service to school officials interested in conducting air-conditioning and refrigeration courses.

Projected to serve several educational levels, the Training Aids are individually designated as appropriate for secondary school courses and/or post secondary courses.

School officials interested in obtaining the listed Training Aids should communicate directly with the respective companies.

Charles J. McKeone
Director of Manpower Development
Air-Conditioning & Refrigeration Institute
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Vice-Chairman: H. P. Painter

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COMMERCIAL PRODUCTS DEPARTMENT
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O. A. Fitch
BRYANT MANUFACTURING COMPANY
Indianapolis, Indiana 46207

William Tyson
CARRIER AIR CONDITIONING COMPANY
Syracuse, New York 13201

James B. Gray
E. I. du PONT de Nemours & Co., Inc.
Wilmington, Delaware 19801

A. A. Lincoln
DUNHAM-BUSH, INC.
West Hartford, Connecticut 06110

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A. B. MacLaren
HUPP CORPORATION
Cleveland Division
Cleveland, Ohio 44110

W. Donald Braden
ITT BELL & GOSSETT, FLUID HANDLING DIVISION, ITT CORP.
Morton Grove, Illinois 60053

Robert T. DeWyze
ITT BELL & GOSSETT, FLUID HANDLING DIVISION, ITT CORP.
Morton Grove, Illinois 60053

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KMP, DIVISION OF PARKER-HANNIFIN CORPORATION
Lyons, New York 14489

Coit B. Lytton
LENNOX INDUSTRIES INC.
Columbus, Ohio 43216

W. H. Scott
Penn Division
PENN CONTROLS, INC.
Goshen, Indiana 46526

J. A. Massing
WHITE-RODGERS COMPANY
St. Louis, Missouri 63123

Lee Miles
WORTHINGTON AIR CONDITIONING CO.
East Orange, New Jersey 07017

Harvey P. Painter
YORK DIVISION, BORG-WARNER CORP.
York, Pennsylvania 17405

G. E. Buchanan
YORK DIVISION, BORG-WARNER CORP.
York, Pennsylvania 17405
ACKNOWLEDGMENT

The Air-Conditioning and Refrigeration Institute gratefully acknowledges the cooperation of the following member-companies for making this training material available to educational institutions:

- Airtemp Division, Chrysler Corporation
- Alco Controls Corporation
- American Air Filter Company, Inc.
- American Standard Inc. Air Conditioning Division
- Bally Case and Cooler, Inc.
- Bendix-Westinghouse Automotive Air Brake Company
- Bryant Manufacturing Company
- Calgon Corporation
- Carrier Air Conditioning Company
- Copeland Refrigeration Corporation
- Frigiking Company, Division of Cummins Engine Company, Inc.
- Honeywell Inc.
- Lennox Industries Inc.
- Marsh Instrument Company
- McQuay, Incorporated
- Mueller Brass Company
- Parker-Hannifin Corporation, Air Conditioning and Refrigeration Division
- Ranco Incorporated

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Research Products Corporation
Robertshaw Controls Company, Milford Division
Sporlan Valve Company
Standard Metal Fabricating Company
Temprite Products Corporation
Thermo King Corporation
Torrington Manufacturing Company, The
Walton Laboratories, Inc.
Whirlpool Corporation
BOOKLETS,
CATALOGUES,
AND
MANUALS
Identification Code: Part No. 820939
Title: Introduction to Electrical Troubleshooting Refrigeration Products
Description: This booklet provides a basic training for the function of electrical components and understanding of wiring diagrams.
Appropriate for: High School Course; Two-Year College Course
Source: Whirlpool Corporation, Publication Department
229 Factory Street, LaPorte, Indiana 46350
Terms: $.10 each.

Identification Code: Part No. AE-6400-R4
Title: Copeland Electrical Handbook
Description: Basic Electrical wiring information for Copeland motor-compressors.
Appropriate for: Two-Year College Course.
Source: Copeland Refrigeration Corporation
Sidney, Ohio 45365
Terms: Free on request for small quantities. Nominal charge for large quantities.

Identification Code: Part No. AE-101
Title: Fundamentals of Refrigeration
Description: Basic introduction to refrigeration theory and practice
Appropriate for: Two-Year College
Source: Copeland Refrigeration Corporation
Sidney, Ohio 45365
Terms: Free on request for small quantities. Nominal charge for large quantities.
Identification Code: Part No. AE-102

Title: Refrigeration System Components

Description: Basic description of refrigeration system components and their application in refrigeration applications.

Appropriate for: Two-Year College Course.

Source: Copeland Refrigeration Corporation
Sidney, Ohio 45365

Terms: Free on request for small quantities. Nominal charge for large quantities.

Identification Code: Part No. 71-6701

Title: Introduction of Air Conditioning

Description: (14 pages) Reviews the purpose, use and major factors to be considered in air conditioning. Discusses basic types of systems for commercial and industrial applications.

Appropriate for: High School Course; Two-Year College Course

Source: Local Honeywell Branch Office

Terms: Free - offered in limited and reasonable quantities.

Identification Code: Part No. 70-4706

Title: Residential Air Conditioning Theory

Description: Workbook training aid, (12 pages)

Appropriate for: High School Course; Two-Year College Course

Source: Local Honeywell Branch Office

Terms: Free in limited and reasonable quantity.
Identification Code: Part No. R-2043

Title: Refrigeration and Air Conditioning Products.

Description: Booklet on Principles and Products.

Appropriate for: High School Course; Two-Year College Course

Source: Mueller Brass Company, 1925 Lapeer Avenue, Port Huron, Michigan 48060

Terms: Without charge in limited and reasonable quantities.

Identification Code: Part Nos. 70-4702
70-4704

Title: 70-4702 - Residential Air Conditioning Control (Work Book)
70-4704 - Residential Air Conditioning Control (Reference Book)

Description: Function of year around air conditioning, cooling equipment, refrigeration equipment, applications, control requirements and reference data.

Appropriate for: High School Course; Two-Year College Course

Source: Local Honeywell Branch

Terms: Free - offered in limited and reasonable quantity.

Identification Code: Form AC-800 (6-64)

Title: Summer Air Conditioning and Heat Pump - General Information and Service Guide.

Description: The purpose of this 52 page booklet is to provide some of the fundamental aspects of Summer Air Conditioning and Heat Pumps with respect to residential and small commercial installations.

Appropriate for: High School Course; Two-Year College Course

Source: American-Standard Inc., Air Conditioning Division
Woodford Avenue, Elyria, Ohio 44035

Terms: $.50 each in lots of 25 or more to one address for ARI sponsored training.

###
Identification Code: MD-2

Title: Air Conditioning-Refrigeration Controls

Description: Comprehensive descriptions and specifications of Robertshaw air conditioning-refrigeration controls. Moderate technical data.

Appropriate for: High School Course; Two-Year College Course

Source: Robertshaw Controls Company, Milford Division, 155 Hill Street, Milford, Connecticut 06461

Terms: $1.30 per copy (check or money order).

Identification Code: Part No. 820941

Title: Fundamentals of Dehydrating a Refrigerant System

Description: Booklet explains and demonstrates the need for efficient evacuation of sealed refrigeration system.

Appropriate for: High School Course; Two-Year College Course

Source: Whirlpool Corporation, Publication Department, 229 Factory Street, LaPorte, Indiana 46350

Terms: $.10 each.

Identification Code: 1965

Title: General Catalog

Description: A listing of all available Ranco Controls with photos, descriptions and specifications.

Appropriate for: High School Course; Two-Year College Course

Source: Ranco Controls Division, 601 West Fifth Avenue, Columbus, Ohio 43201

Terms: (See additional information.)

Additional information: The 1965 catalog is not intended for large distribution. As many as six copies will be distributed, per school, for reference library use, at no cost.
Identification Code: 30-66

Title: WORKING DATA CATALOG - Sectional Prefab Walk-In Coolers and Freezers/Refrigerated Warehouses.

Description: 100-page loose-leaf catalog on Walk-In Refrigerators, Walk-In Freezers, and Refrigerated Warehouses. Includes illustrations, charts, general design & construction information; refrigeration recommendations, etc.

Appropriate for: High School Course; Two-Year College Course

Source: Bally Case and Cooler, Inc.
Bally, Pennsylvania 19503

Terms: Free

Identification Code: 38-66

Title: SECTIONAL PREFAB WALK IN COOLERS AND FREEZERS/REFRIGERATED WAREHOUSES

Description: 32-page brochure on Walk-In Coolers and Freezers and Refrigerated Warehouses, including general design and construction information, illustrations, dimensional and capacity charts, refrigeration recommendations, etc.

Appropriate for: High School Course; Two-Year College Course

Source: Bally Case and Cooler, Inc.
Bally, Pennsylvania 19503

Terms: Free.

Identification Code: 78-66

Title: Ice Cream/Dairy Products Walk-Ins and Display Cases

Description: Pocket-size catalog showing Walk-In Coolers and Freezers, and Display Cases for storage and display of all dairy products and ice cream, including illustrations, dimensions, capacities, etc.

Appropriate for: High School Course; Two-Year College Course

Source: Bally Case and Cooler, Inc.
Bally, Pennsylvania 19503

Terms: Free.
Identification Code: McQuay Engineering Manual No. 95-A

Title: ENGINEERING MANUAL - Refrigeration & Comfort Cooling

Description: This edition of the McQuay Sales Engineering Manual covering Commercial Refrigeration and Comfort Air Conditioning has been prepared in the form of a condensed text and reference book. The theory and principles of modern refrigerations and air conditioning have been omitted due to the many excellent publications currently available on these subjects.

The purpose of this reference book is to furnish the engineering, selling and servicing organizations with accurate and useful data to simplify load calculations and equipment selections. The manual contains 49 tables of reference data commonly required in load calculations and/or equipment selection. No attempt has been made to specify a particular make of equipment.

Appropriate for: High School Course; Two-Year College Course

Source: McQuay, Inc. (Mr. G. Cook, Mgr., Adv. & Sales Promotion) P. O. Box 1551, 13600 Industrial Park Boulevard, Minneapolis, Minnesota 55440

Terms: Net 30 days.

McQuay Refrigeration Load Form #65R .10 per pad/10 sheets
McQuay Refrigeration Load Form #66R .10 per pad/10 sheets
McQuay Refrigeration Load Form #67R .10 per pad/10 sheets
McQuay Comfort Cooling Load Form #68R .10 per pad/10 sheets

Identification Code: 1969

Title: Electricity and Solid State for Control

Description: Brief explanation of basic electricity and solid state applications for controls and control systems.

Appropriate for: High School Course; Two-Year College Course

Source: Ranco Controls Division 601 West Fifth Avenue, Columbus, Ohio 43201

Terms: See below.

Additional information: The 1969 Electricity and Solid State for Control is not intended for large distribution. As many as six copies will be distributed, per school, for reference library use, at no cost.
Title: Miscellaneous Manuals (see below).

Description: (See below.)

Appropriate for: High School Course; Two-Year College Course

Source: Lennox Industries Inc.
200 South Twelfth Avenue, Marshalltown, Iowa 50158

Terms: On request.

The following printed manuals are available:

1. "Planning for Profit" includes a set of four books covering basic information: Analysis of a balance sheet, Collections, and a suggested accounting system. All are designed for a heating and air conditioning contractor as an aid in the operation of his business.

2. Psychrometric Manual covers the principles of psychrometrics and an introduction to a psychrometric chart. Some fundamental problems are presented and worked out, giving a guide to many different types of problems which can be solved.

3. Coil Selection Manual. This manual presents the basic curves used in selecting evaporator coils and matching condensing units and illustrates and describes how coils and condensing units are combined to meet a given set of conditions.

4. Load Calculating Manual. This manual gives all of the load calculating factors for both residential and commercial heat gain and loss calculations. There is no direction as to how to use these figures in this manual.

5. Make-up Air Manual. This manual describes the conditions and considerations for the application of make-up air equipment to various types of buildings. It contains tables showing make-up air requirements for many different applications.

6. Lennox Cooling Service Manual. This is a loose-leaf manual on basic refrigeration service and not specifically restricted to Lennox equipment. The manual is divided into several sections including fundamentals, installation procedures, mechanical components, electrical components, and a general section. The manual sells for $10 and is available through all Lennox Divisions.

7. History of Hermetic Compressors. This is a guide to the development of hermetic compressors from the early ones used in household appliances, up to the present larger size compressors. It includes the development and reasons for a two-pole motor, PSC motor, and many of the other recent developments leading to today's modern refrigeration compressor.

###
Identification Code: 1058

Title: Ranco Service Manual

Description: Manual containing condensed product data and service instructions on the following:

- Refrigeration controls
- Air conditioning controls
- Clothes dryer controls
- Humidity controls
- Health code safety controls
- Reversing valves
- Starting relays
- Rotary switches

Appropriate for: High School Course; Two-Year College Course

Source: Ranco Controls Division
601 West Fifth Avenue
Columbus, Ohio 43201

Terms: See below.

Additional information: The 1058 Service Manual is not intended for large distribution. As many as six copies will be distributed, per school, for reference library use, at no cost.

Identification Code: Technical Manual 13 B

Title: Technical Data On Humidification

Description: Manual provides complete information on Walton Space and Duct Type industrial and commercial equipment. Formulae and examples of calculations of humidity loads are included as an aid to the engineer utilizing humidifying equipment. Proper application of Walton Humidifiers are also covered, Complete specifications and ample graphic illustrations are included.

Appropriate for: Two-Year College Course

Source: Walton Laboratories, Inc.
1835 Burnet Avenue, Union, New Jersey 07083

Terms: Manual available at $.25 cents a copy.
TECHNICAL ARTICLES

AND

PAMPHLETS
Title: The ABC's of the Thermostatic Expansion Valve

Description: Article written by Mr. John A. Schenk, Vice President - Engineering, ALCO Controls Corporation; areas dealt with are: function of pilot operated type Thermostatic Expansion Valves, power assembly, schematic drawings of various applications, problems of "hunting" and flash gas and suggestions for proper valve size selection.

Appropriate for: High School Course; Two-Year College Course

Source: Alco Controls Corporation, Advertising Department
Box 12700, St. Louis, Missouri 63144

Terms: Without charge.

###

Title: How to Balance Refrigeration Systems by Selecting Proper Flow Control Devices.

Description: An article, written by Mr. John A. Schenk, Vice President - Engineering, Alco Controls Corporation, discusses the points to be considered in valve selection in various applications.

Appropriate for: High School Course; Two-Year College Course

Source: Alco Controls Corporation, Advertising Department
Box 12700, St. Louis, Missouri 63141

Terms: Without charge.

###

Title: Solid Core Desiccants for Refrigerant Driers

Description: Collaboration of Dr. Walter O. Walker, A. A. Sakhnovsky, University of Florida, and Ralph B. Tilney, ALCO Controls Corporation. Extensive analysis of Solid Core Desiccants, their construction, water capacity testing, geometry of filtration characteristic and miscellaneous points of observation.

Appropriate for: High School Course; Two-Year College Course

Source: Alco Controls Corporation, Advertising Department
Box 12700, St. Louis, Missouri 63141

Terms: Without charge.
Identification Code: None

Title: Moisture

Description: By Dr. Walter O. Walker, Dean, Division of Research and Industry, University of Miami. Problems encountered with the presence of moisture in refrigeration machines and solutions for correcting such.

Appropriate for: High School Course; Two-Year College Course

Source: Alco Controls Corporation, Advertising Department
Box 12700, St. Louis, Missouri 63141

Terms: Without charge.

Identification Code: Separate reprints of technical magazine articles

Title: Basic Factors in Air Circuit Design
Blower - Motor Performance
How to Select Air Impellers for Optimum Performance
Predicting Blower Performance
Designing Cooling Systems for Airborne Electronic Equipment
Propeller Fan Orifice Design
Reducing Fan Noise

Description: Separate reprints of technical magazine articles. All deal with correct selection and use of fans and other air moving devices.

Appropriate for: High School Course; Two-Year College Course

Source: The Torrington Manufacturing Company
100 Franklin Drive
Torrington, Connecticut 06790

Terms: No charge in reasonable quantities.

Identification Code: Service Clinic For Contractors

Title: How To Care For Gauges and Thermometers

Description: This is an article reprinted from the Air-Conditioning and Refrigeration Business covering care and maintenance of gauges and thermometers used in the refrigeration industry.

Appropriate for: High School Course; Two-Year College Course

Source: Marsh Instrument Company, 3501 West Howard Street,
Skokie, Illinois 60076

Terms: No charge in reasonable quantities.
### Identification Code: See below.

**Title:** Technical Pamphlets (listed below)

**Description:** See below.

**Appropriate for:** High School Course; Two-Year College Course

**Source:** Bryant Manufacturing Company  
2020 Montcalm Street  
Indianapolis, Indiana  46202

**Terms:** Listed Below.

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<thead>
<tr>
<th>Code No.</th>
<th>Description</th>
<th>Price</th>
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<tr>
<td>0.0</td>
<td>Form SAM-A-15, Psychrometric Chart, Paper or Plastic</td>
<td>$ .10/each</td>
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<td>1.3.1</td>
<td>Super Market Air Conditioning Loads</td>
<td>.02/each</td>
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<td>1.3.2</td>
<td>Air Conditioned Bowling Center Loads</td>
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<td>1.3.3</td>
<td>Internal Loads Due to Lighting</td>
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<tr>
<td>1.5.2</td>
<td>Hydronic - Job Estimating and Cost Sheet</td>
<td>.65/Pad</td>
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<td>1.5.3</td>
<td>Forced Air - Job Estimating and Cost Sheet</td>
<td>.65/Pad</td>
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<td>2.1.1</td>
<td>Hydronics</td>
<td>.12/each</td>
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<td>2.1.2</td>
<td>Design of a Hydronics System Involving Fan-Coil Units</td>
<td>.12/each</td>
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<td>2.2</td>
<td>Friction Loss for Piping System</td>
<td>.04/each</td>
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<td>3.0.1</td>
<td>Quietline Air Distribution Design</td>
<td>.24/each</td>
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<td>3.5</td>
<td>Duct Design Data</td>
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<td>3.5.1</td>
<td>The Frictional Effect of Duct Fittings</td>
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<td>4.1.9</td>
<td>Corrosion of Combustion Equipment by Chlorinated Hydrocarbon Vapors</td>
<td>.04/each</td>
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<td>4.2.1</td>
<td>Gas Burner Orifices</td>
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<td>4.9.1</td>
<td>Ventilation and Combustion Air Requirements</td>
<td>.04/each</td>
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<td>For Equipment Rooms</td>
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<td>4.9.2</td>
<td>Venting of Combustion Products from Gas Units</td>
<td>.12/each</td>
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<tr>
<td>7.2.1</td>
<td>Phasing of Low Voltage Transformers in Paralleled Appliances</td>
<td>.02/each</td>
</tr>
<tr>
<td>7.6.1</td>
<td>Wire Sizing - Circuit Protection</td>
<td>.20/each</td>
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<td>8.5.1</td>
<td>&quot;Plus Values&quot; of Air Conditioning - Reprinted Newspaper Clippings</td>
<td>.12/each</td>
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<tr>
<td>90.3.1</td>
<td>Importance of and Appreciation for Sheet Metal Craftsmanship</td>
<td>.04/each</td>
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<tr>
<td>90.9</td>
<td>Cross-Section and Sketching Paper</td>
<td>.40/Pad</td>
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</tbody>
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### Identification Code: Temprite Form No. T-611

**Title:** A Study of Oil Separators in Refrigeration Systems

**Description:** A printed article Temprite Form No. T-611 describes the basic operating principle and schematic application diagrams of Oil Separators in Refrigerating Systems.

**Appropriate for:** Two-Year College Course

**Source:** Temprite Products Corporation  
2345 West Maple Road, Troy, Michigan  48084

**Terms:** Free.

**Additional information:** A set of 2" x 2" projection slides are available for lecture purposes at a cost of $5.00.
Identification Code: PA 1633

Title: Design of RP Paint Arrestor Equipped Paint Spray Booths

Description: Covers design of paint spray booth, size of fan, resistance, make-up air, and also applicable codes and maintenance.

Appropriate for: High School Course (Technical but easy to read.); Two-Year College Course

Source: Research Products Corporation
1015 East Washington Avenue
Madison, Wisconsin 53703

Terms: No charge.

Additional information: Lecturer (with slides) available upon request. One or two hour talk.

Identification Code: A-1707

Title: The Story of Humidity

Description: Covers definitions, uses, water characteristics, condensation, psychrometric chart, equipment, Calculations of humidity requirements.

Appropriate for: High School Course; Two-Year College Course

Source: Research Products Corporation
1015 East Washington Avenue
Madison, Wisconsin 53703

Terms: No charge.

Additional information: Lecturer (with slides) available upon request. One or two hour talk.

Identification Code: GF 1536

Title: Design of Grease Filter Equipped Kitchen Exhaust Systems

Description: Covers design of hoods, grease filters, sizing duct, sizing blower, make-up air.

Appropriate for: High School Course; Two-Year College Course (Technical, but easy to read.)

Source: Research Products Corporation
1015 East Washington Avenue, Madison, Wisconsin 53703

Terms: No charge.

Additional information: Lecturer (with slides) available upon request. One or two hour talk.
Identification Code: Part No. 821349
Title: How to Read A.S.A. Wiring Diagrams
Description: This is a booklet showing how to read ASA wiring diagrams.
Appropriate for: High School Course; Two-Year College Course
Source: Whirlpool Corporation, Publication Department
229 Factory Street, LaPorte, Indiana 46350
Terms: $.20 each.

Identification Code: Form No. 831-ACD
Title: Trouble-Tracer - Summer Air Conditioning and Heat Pumps
Description: The purpose of this 8-page booklet is to enable service men to quickly and accurately diagnose malfunction of Summer Air Conditioning and Heat Pumps.
Appropriate for: High School Course; Two-Year College Course
Source: American-Standard Inc., Air Conditioning Division
Woodford Avenue, Elyria, Ohio 44035
Terms: $.50 each in lots of 25 or more to one address for ARI sponsored training.
Additional information: They are on Tensalex paper, which is very durable and washable.

Identification Code: Form No. 446-ACD
Title: Trouble-Tracer - Gas-Fired Furnaces
Description: The purpose of this 4-page booklet is to enable service men to quickly and accurately diagnose malfunction of gas-fired furnaces.
Appropriate for: High School Course; Two-Year College Course
Source: American-Standard, Inc., Air Conditioning Division
Woodford Avenue, Elyria, Ohio 44035
Terms: $.25 each in lots of 25 or more to one address for ARI sponsored training.
Additional information: They are on Tensalex paper, which is very durable and washable.
Identification Code: Form No. 519-ACD

Title: Trouble-Tracer - Oil-Fired Furnaces

Description: The purpose of this 4-page booklet is to enable service men to quickly and accurately diagnose malfunction of oil-fired furnaces.

Appropriate for: High School Course; Two-Year College Course

Source: American-Standard Inc., Air Conditioning Division
Woodford Avenue, Elyria, Ohio 44035

Terms: $.25 each in lots of 25 or more to one address for ARI sponsored training.

Additional information: They are on Tensalex paper, which is very durable and washable.

Identification Code: Part No. 820662

Title: Dial-A-Fix Card "Electric Refrigerator"

Description: This card is a trouble diagnosis chart for electric refrigeration products.

Appropriate for: High School Course; Two-Year College Course

Source: Whirlpool Corporation, Publications Department
229 Factory Street, LaPorte, Indiana 46350

Terms: $.15 each.

Identification Code: Part No. 821295

Title: Dial-A-Fix Card "Room Air Conditioner Load Calculation"

Description: This chart is a load calculation estimator.

Appropriate for: High School Course; Two-Year College Course

Source: Whirlpool Corporation, Publications Department
229 Factory Street, LaPorte, Indiana 46350

Terms: $.15 each.
Identification Code: 84-52347

Title: Trouble Shooting Checklist

Description: Printed matter, 1 sheet (heavy cardstock) printed both sides with logical trouble shooting steps for locating malfunctions in an Auto Air Conditioning system.

Appropriate for: High School Course

Source: Frigiking Division Cummins Engine Company
10858 Harry Hines Boulevard
Dallas, Texas  75220

Terms: Available in lots of 50 or more at $.15 cents each copy.

Additional information: A definite aid to Service Managers and shop personnel in the maintenance and repair of Auto Air Conditioning Units.

Identification Code: Form No. AC-709

Title: Ductomatic

Description: Circular slide rule for sizing residential heating and/or cooling air handling trunks, ducts, risers, registers, diffusers, and grilles for new systems and checking existing systems.

Appropriate for: High School Course; Two-Year College Course

Source: American-Standard Inc., Air Conditioning Division
Woodford Avenue, Elyria, Ohio  44035

Terms: $.75 each in lots of 25 or more to one address for ARI sponsored training.

Identification Code: None

Title: Pressure-Temperature Pocket Cards

Description: Handy Pocket size temperature-pressure chart for Various Refrigerants.

Appropriate for: High School Course; Two-Year College Course

Source: Alco Controls Corporation, Advertising Department
Box 12700, St. Louis, Missouri  63141

Terms: Without charge.
Identification Code: None

Title: Pressure-Temperature-Wall Charts

Description: Quick reference Wall Chart listing Pressure-Temperature data for various refrigerants.

Appropriate for: High School Course; Two-Year College Course

Source: Alco Controls Corporation, Advertising Department
Box 12700, St. Louis, Missouri 63141

Terms: Without charge.

Identification Code: None

Title: Thermo Valve Service Hints

Description: Six page pamphlet covering useful Service Hints on Thermo Expansion Valves.

Appropriate for: High School Course; Two-Year College Course

Source: Alco Controls Corporation, Advertising Department
Box 12700, St. Louis, Missouri 63141

Terms: Without charge.

Identification Code: None

Title: Solenoid Valve Service Hints

Description: Four page pamphlet covering useful Service Hints on Solenoid Valves.

Appropriate for: High School Course; Two-Year College Course

Source: Alco Controls Corporation, Advertising Department
Box 12700, St. Louis, Missouri 63141

Terms: Without charge.
STRIP FILMS AND SLIDES
Title: Sealed System Repair Booklet

Description: Instruction for servicing the Whirlpool sealed system refrigeration products.

Appropriate for: High School Course; Two-Year College Course

Source: Whirlpool Corporation, Publication Department
229 Factory Street, LaPorte, Indiana 46350

Terms: $.10 each.

Additional information: 35 mm color film Part No. 820795 "Sealed System Repair" - $1.50.

Film takes from 1 to 3 hours depending on the group or leader and materials being used along with the film.

Title: "How to Read and Use Test Instruments"

Description: This booklet shows how to read and use test instruments.

Appropriate for: High School Course; Two-Year College Course

Source: Whirlpool Corporation, Publication Department
229 Factory Street, LaPorte, Indiana 46350

Terms: $.10 each - Film: $1.50.

Additional information: 35 mm color film strip Part No. 820911 "How to Read and Use Test Instruments".

Film takes from 1 to 3 hours depending upon group leader, group, and the materials being used along with the film.
Identification Code: 820916

Title: 1964 Refrigeration Products

Description: A course presenting feature changes of the 1964 line of refrigeration products.

Appropriate for: High School Course; Two-Year College Course

Source: Whirlpool Corporation, Publication Department
229 Factory Street, LaPorte, Indiana 46350

Terms: Booklet: $.10 each, Film: $1.50.

Additional information: 35 mm color film strip Part No. 820915, "1964 Refrigeration Products".

Film takes from 1 to 3 hours depending upon the group leader, group, and materials used along with the film.


Identification Code: Part No. 821171

Title: 1965 Compact Automatic Ice Makers

Description: This booklet is a training course on the repair of the automatic eight cavity domestic ice maker.

Appropriate for: High School Course; Two-Year College Course

Source: Whirlpool Corporation, Publication Department
229 Factory Street, LaPorte, Indiana 46350

Terms: $.10 each.

Additional information: 35 mm color film Part No. 821170 "1965 Compact Automatic Ice Maker".

Film takes from 1 to 3 hours depending on the group leader, group, and materials being used along with the film.

###
Identification Code: Part No. 821230

Title: Basic Electrical Refrigeration Controls

Description: This booklet provides instruction pertaining to the electrical components of refrigeration systems.

Appropriate for: High School Course; Two-Year College Course

Source: Whirlpool Corporation, Publication Department
229 Factory Street, LaPorte, Indiana 46350

Terms: $.10 each.

Additional information: 35 mm color film Part No. 821229, "Basic Electrical Refrigeration Controls", - $1.50.

Film takes anywhere from 1 to 3 hours depending on group and also leader, and materials being used with the film.

###

Identification Code: Part No. 821231

Title: 1965 Refrigeration Products

Description: A course presenting feature changes of the 1965 line of refrigeration products.

Appropriate for: High School Course; Two-Year College Course

Source: Whirlpool Corporation, Publications Department
229 Factory Street, LaPorte, Indiana 46350

Terms: Booklet: $.10 each, Film: $1.50.

Additional information: 35 mm color film strip Part No. 821232 "1965 Refrigeration Products".

Film takes from 1 to 3 hours depending on the group leader, group, and materials being used along with the film.

###

27
Identification Code: Part No. 821234

Title: 45 Pound Ice Cube Maker Booklet

Description: This booklet is a training program for a domestic free standing ice cube maker.

Appropriate for: High School Course; Two-Year College Course

Source: Whirlpool Corporation, Publications Department
229 Factory Street, LaPorte, Indiana 46350

Terms: Booklet: $.10 each, Film: $1.50.

Additional information: 35 mm color film strip Part No. 821233 - "45 Pound Ice Cube Maker".

Film takes from 1 to 3 hours depending upon the group leader, group, and the materials being used along with the film.

Identification Code: Part No. 821336

Title: Absorption Air Conditioning

Description: This booklet is a training program on the gas absorption central air conditioning.

Appropriate for: High School Course; Two-Year College Course

Source: Whirlpool Corporation, Publications Department
229 Factory Street, LaPorte, Indiana 46350

Terms: Booklet: $.15 each, Film: $1.50.

Additional information: 35 mm color film strip Part No. 821335 "Absorption Air Conditioning".

Film takes from 1 to 3 hours depending upon the group leader, group, and the materials being used along with the film.
Identification Code: Part No. 821444

Title: 1966 Refrigeration Products

Description: A course presenting feature changes of the 1966 line of refrigeration products.

Appropriate for: High School Course; Two-Year College Course

Source: Whirlpool Corporation, Publications Department
229 Factory Street, LaPorte, Indiana 46350

Terms: Booklet: $.10 each, Film: $1.50.

Additional information: 35 mm color film strip Part No. 821443 "1966 Refrigeration Products".

Film takes from 1 to 3 hours depending on the meeting group leader, group, and the materials being used with the film.

###

Identification Code: Part No. 821592

Title: Absorption Air Conditioning Supplement Booklet

Description: Supplement to Part No. 821336 and explains product improvement and modifications.

Appropriate for: High School Course; Two-Year College Course

Source: Whirlpool Corporation, Publications Department
229 Factory Street, LaPorte, Indiana 46350

Terms: Booklet: $.10 each, Film: $1.50.

Additional information: 35 mm color film strip Part No. 821593 "Absorption Air Conditioning Supplement".

Film takes from 1 to 3 hours depending upon group leader, group, and materials being used along with the film.

###
Identification Code: Part No. 821681
Title: 1967 Refrigeration Products
Description: A course presenting feature changes of the 1967 line of refrigeration products.
Appropriate for: High School Course; Two-Year College Course
Source: Whirlpool Corporation, Publications Department
229 Factory Street, LaForte, Indiana 46350
Terms: Booklet: $.10 each, Film: $1.50.
Additional information: 35 mm color film strip Part No. 821681 "1967 Refrigeration Products".
Film takes from 1 to 3 hours depending on the meeting leader, group, and the materials being used along with the film.

Identification Code: Part No. 821601
Title: Commercial Ice Makers Booklet
Description: This booklet instructs students on the repair of Whirlpool commercial automatic Ice Cube Makers.
Appropriate for: High School Course; Two-Year College Course
Source: Whirlpool Corporation, Publications Department
229 Factory Street, LaForte, Indiana 46350
Terms: Booklet: $.10 each, Film: $1.50.
Additional information: 35 mm color film strip Part No. 821602 "Commercial Ice Makers".
This film takes from 1 to 3 hours depending upon the group leader, group, and the materials being used along with the film.
Identification Code: Part No. 821603

Title: Servicing Central Electric Air Conditioners

Description: This booklet is a program on training of the Whirlpool Central Electric Air Conditioners.

Appropriate for: High School Course; Two-Year College Course

Source: Whirlpool Corporation, Publications Department
        229 Factory Street, LaPorte, Indiana 46350

Terms: Booklet: $.10 each, Film: $1.50.

Additional information: 35 mm color film strip Part No. 821604 "Servicing Central Air Conditioners".

Film takes from 1 to 3 hours depending on group leader, group, and the materials being used along with the film.

###

Identification Code: Part No. 821893

Title: R-Model Absorption Air Conditioning Booklet

Description: This booklet is a training program on the current models of the gas absorption central air conditioning systems.

Appropriate for: High School Course; Two-Year College Course

Source: Whirlpool Corporation, Publications Department
        229 Factory Street, LaPorte, Indiana 46350

Terms: Booklet: $.20 each, Film: $1.50.

Additional information: 35 mm color film strip Part No. 821894 "R-Model Absorption Air Conditioning".

This film takes from 1 to 3 hours depending on the group leader, group, and the materials being used along with the film.

###
Identification Code: Part No. 820918

Title: "Ice Magic Review". Booklet

Description: This booklet is a training course on the repair of the automatic six cavity domestic ice maker.

Dial-A-Fix Chart Part No. 820295 "Ice Maker". This card is a trouble diagnosis for the six cavity domestic ice maker unit.

Appropriate for: High School Course; Two-Year College Course

Source: Whirlpool Corporation, Publications Department
        229 Factory Street, LaPorte, Indiana 46350

Terms: Booklet: $.10 each, Dial-A-Fix: $.15 each, Film: $1.50.

Additional information: 35 mm color film Part No. 820917, "Ice Magic Review".

Film takes from 1 to 3 hours depending on the group leader, group, and materials being used along with the film.

Identification Code: STM-31

Title: Principles of Refrigeration

Description: Full-color 35 mm Strip Film and companion Presentation Manual which contains the same pictures as the film strips to aid in class discussion, or for self-instruction in the "basics".

Running time: Variable depending on instructor (Minimum 1-1/2 hours).

Appropriate for: High School Course

Source: Airtemp Division-Chrysler Corporation
        1600 Webster Street, Dayton, Ohio 45404

Terms: Strip Film: $5.00 each, net. Manual: $.35 each, net.

###

32
Identification Code: STM-32

Title: Electrical in Air Conditioning

Description: Full-Color 35 mm Strip Film and companion Presentation Manual which contains the same pictures as the film strips to aid in class discussion or for self-instruction in the "basics", or for self-instruction in various Airtemp control panel arrangements.

Running Time: Minimum - Three (3) hours.

Appropriate for: High School Course; Two-Year College Course

Source: Airtemp Division - Chrysler Corporation
1600 Webster Street, Dayton, Ohio 45404

Terms: Strip Film: $5.00 each, net. Manual: $.35 each, net.

Additional information: This set covers basic wiring diagrams, tracing circuits and the use of electrical test instruments in checking capacitors, relays, motors, etc.

###

Identification Code: STM-33

Title: Check, Test and Start Procedures

Description: Full-Color 35 mm Strip Film and companion Presentation Manual which contains the same pictures as the film strips to aid in class discussion or for self-instruction in the basic methods of checking out and insuring dependable performance of water-cooled and air-cooled air conditioning units.

Running Time: Variable, minimum - two (2) hours.

Appropriate for: High School Course; Two-Year College Course

Source: Airtemp Division, Chrysler Corporation
1600 Webster Street, Dayton, Ohio 45404

Terms: Strip Film: $5.00 each, net. Manual: $.35 each, net.

###
Identification Code: STM-34

Title: Air Conditioning Trouble Diagnosis

Description: Full-color 35 mm Strip Film and companion Presentation Manual which contains the same pictures as the film strips to aid in class discussion or for self-instruction in the procedures for checking for installation and operating faults and faults that result from lack of maintenance.

Running Time: Variable, minimum - four (4) hours.

Appropriate for: High School Course; Two-Year College Course

Source: Airtemp Division, Chrysler Corporation
1600 Webster Street, Dayton, Ohio 45404

Terms: Strip Film: $5.00 each, net. Manual: $.35 each, net.

Additional information: Faults that originate in the refrigerant circuit, the evaporator air circuit, the condensing medium (air or water) circuit, and the electrical circuit (on both water-cooled and air-cooled equipment) are presented and discussed in relation to one another.

###

Identification Code: STM-35

Title: Motor-Compressor Burn-Out, Testing and Replacing

Description: Full-color 35 mm Strip Film and companion Presentation Manual which contains the same picture as the film strips to aid in class discussion or for self-instruction in hermetic system clean-up procedures following minor and severe motor-compressor burnouts.

Running Time: Variable, minimum - three (3) hours.

Appropriate for: High School Course; Two-Year College Course

Source: Airtemp Division, Chrysler Corporation
1600 Webster Street, Dayton, Ohio 45404

Terms: Strip Film: $5.00 each, net. Manual: $.35 each, net.

###

34
Identification Code: STM-36

Title: Analyzing, Adjusting & Service Heating Equipment

Description: Full-color 35 mm Strip Film and companion Presentation Manual which contains the same pictures as the film strips to aid in class discussion or for self-instruction in checking out and insuring satisfactory operation of gas and oil-fired furnaces.

Running Time: Variable, minimum - three (3) hours.

Appropriate for: High School Course; Two-Year College Course

Source: Airtemp Division, Chrysler Corporation
1600 Webster Street, Dayton, Ohio 45404

Terms: Strip Film: $5.00 each, net. Manual: $.35 each, net.

Additional information: The evolution of forced warm air furnaces systems is also presented in this set.

Identification Code: STM-37

Title: Heat Pump Service

Description: Full-color 35 mm Strip Film and companion Presentation Manual which contains the same pictures as the film strips to aid in class discussion or for self-instruction in the theory of operation and service of a typical air-to-air, split-system type heat pump.

Running Time: Variable, minimum - six (6) hours.

Appropriate for: High School Course; Two-Year College Course

Source: Airtemp Division, Chrysler Corporation
1600 Webster Street, Dayton, Ohio 45404

Terms: Strip Film: $5.00 each, net. Manual: $.35 each, net.

Additional information: The cooling cycle, heating cycle, heating cycle with supplemental electrical heat and the defrost cycle are presented in a sequence of control operation.
Identification Code: STM-38, Part I

Title: Analyzing, Adjusting & Servicing Model 3500 Series Units -- Part I

Description: Full color 35 mm Strip Film and companion Presentation Manual which contains the same pictures as the film strips to aid in class discussion or for self-instruction in the recognition of unit components and the heating and cooling sequence of operation.

Running Time: Variable, minimum - four (4) hours.

Appropriate for: High School Course; Two-Year College Course

Source: Airtemp Division, Chrysler Corporation
1600 Webster Street, Dayton, Ohio 45404

Terms: Film Strip: $5.00 each, net. Manual: $.35 each, net.

Additional information: Heating and cooling check, test and start procedures are also presented.

Identification Code: STM-38, Part II

Title: Analyzing, Adjusting, & Servicing Model 3500 Series Units -- Part II

Description: Full color 35 mm Strip Film and companion Presentation Manual which contains the same pictures as the film strips to aid in class discussion or for self-instruction in basic methods of servicing this type of equipment.

Running Time: Variable, minimum - three (3) hours.

Appropriate for: High School Course; Two-Year College Course

Source: Airtemp Division, Chrysler Corporation
1600 Webster Street, Dayton, Ohio 45404

Terms: Film Strip: $5.00 each, net. Manual: $.35 each, net.
Identification Code: STS-65-4

Title: The All-Electric Heat Pump

Description: Full color 35 mm Strip Film and companion Presentation Manual which contains the same pictures as the film strips to aid in class discussion or for self-instruction in understanding all-electric heat pump theory and operation and the advantages of electricity as a fuel.

Running Time: Variable, minimum - two (2) hours.

Appropriate for: Two-Year College Course

Source: Airtemp Division, Chrysler Corporation
1600 Webster Street, Dayton, Ohio 45404

Terms: Film Strip: $5.00 each, net. Manual: $.35 each, net.

Identification Code: STS-65-5, Part I

Title: Ducted Heat Pump Systems

Description: Full color 35 mm Strip Film and companion Presentation Manual which contains the same pictures as the film strips to aid in class discussion or for self-instruction in application and advantages of ducted electric heating and air conditioning.

Running Time: Variable, minimum - one (1) hour.

Appropriate for: Two-Year College Course

Source: Airtemp Division, Chrysler Corporation
1600 Webster Street, Dayton, Ohio 45404

Terms: Film Strip: $5.00 each, net. Manual: $.35 each, net.
Identification Code: STS 65-5, Part II

Title: Sizing & Selecting Modern Heat Pumps

Description: Full color 35 mm Strip Film and companion Presentation Manual which contains the same pictures as the film strips to aid in class discussion or for self-instruction in selecting the right equipment for the job.

Running Time: Variable, minimum - 1-1/2 hours.

Appropriate for: Two-Year College Course

Source: Airtemp Division, Chrysler Corporation
1600 Webster Street, Dayton, Ohio 45404

Terms: Film Strip: $5.00 each, net. Manual: $.35 each, net.

Identification Code: None

Title: Clean-Up of Hermetic Motor-Burnouts

Description: (Filmstrip) - Procedure in cleaning up a system.

Appropriate for: High School Course; Two-Year College Course

Source: Parker-Hannifin Corporation, RAC Division
17325 Euclid, Cleveland, Ohio 44112

Terms: Free - on loan basis.

Identification Code: None

Title: Small Business Management

Description: Film Strip - Setting up and running a small business. Consists of two parts: a) Pitfalls; and b) Remedies.

Appropriate for: High School Course; Two-Year College Course

Source: Parker-Hannifin Corporation, RAC Division
17325 Euclid, Cleveland, Ohio 44112

Terms: Free - on loan basis.
Identification Code: RSI

Title: Residential Air Conditioning

Description: Covers basic Air Conditioning and Refrigeration Principles, Air conditioning systems, Honeywell controls, and Trouble Shooting hints. 109 (35 mm) Slides and Script.

Appropriate for: High School Course; Two-Year College Course

Source: Local Honeywell Branch Office Branch Sales Manager

Terms: Free upon request. (Available on loan.)

Identification Code: BTC

Title: Heat Gain/Loss Calculation

Description: 54 slides and script, approximately 45 minutes of presentation designed to teach the student a step-by-step, short method of calculating residential heating or cooling load; essential to training potential salesmen.

Appropriate for: Two-Year College Course

Source: Nearest Bryant Distributor or Bryant Manufacturing Company

Terms: Available on loan from former. Price $27.00 from latter.

Additional information: Illustrated black and white 16-page booklet which reviews each frame in film for self-study purposes. Priced at $.25 per copy.

Identification Code: AA-AVL

Title: Fundamentals of Auto Air Conditioning

Description: 35 mm slide or film strip - full color illustrations with narration tape provides a complete and interesting presentation of air conditioning theory and the function of components in an Auto Air Conditioning system. This film provides the student with a full explanation of what, why, and how air conditioning works.

Appropriate for: High School Course

Source: Frigiking Division Cummins Engine Company 10858 Harry Hines Blvd., Dallas, Texas 75220

Terms: Part 1 of a three-part film strip course. Entire course, including literature, is available for $150.00.
Identification Code: AA-AV2

Title: 35 mm Slides or Film Strip - Installation Techniques

Description: 35 mm slides or film strip - LEARNING BY DOING is featured in this film presentation. Clear, fully illustrated explanations are provided for all important points of installing an Auto Air Conditioner. This film followed by an actual shop installation of an air conditioning unit, provides maximum learning.

Appropriate for: High School Course

Source: Frigiking Division Cummins Engine Company
10858 Harry Hines Blvd., Dallas, Texas 75220

Terms: Part 2 of a three-part film strip course. Entire course, including literature, is available for $150.00.

Identification Code: AA-AV3

Title: Successful Trouble Shooting

Description: 35 mm slides or film strip - graphically illustrated to explain the key points of Auto Air Conditioning Service and use of the new Frigiking-developed Checklist in trouble shooting. Reference is made to the Auto Air Conditioning Service Manual for detailed instructions beyond the scope of the film strip.

Appropriate for: High School Course

Source: Frigiking Division Cummins Engine Company
10858 Harry Hines Blvd., Dallas, Texas 75220

Terms: Part 3 of a three-part film strip course. Entire course, including literature, is available for $150.00.
Identification Code: BTC - 1003 - 66

Title: "ABC'S OF AVOIDING BURNOUT CALLBACKS"

Description: 72 color slides and script, approximately one (1) hour presentation, designed to assist the student of electric air conditioning service to (1) analyze problem of failure, (2) determine exact cause, and (3) remedy the problem.

Appropriate for: Two-Year College Course

Source: Nearest Bryant Distributor or Bryant Manufacturing Company

Terms: Available on loan from former. Price $35.00 set from latter.

Additional information: Illustrated, color, 16 page booklets reviews each frame in film for self-study. Priced at $.60 per copy.

Identification Code: None

Title: "Basic Electricity" and "Putting Electricity to Work"

Description: Overhead slide program. ("Basic Electricity" - 52 slides in color; "Putting Electricity to Work" - 27 slides in color). Both sets include technamation.

"Basic Electricity" includes electrical fundamentals beginning with electron theories and proceeding to motors, relays, transformers, and basic circuits.

"Putting Electricity to Work" develops the total wiring for a complete air conditioning system, including the compressor, indoor and outdoor fans, thermostat, etc.

Appropriate for: High School Course; Two-Year College Course

Source: Lennox Industries Inc.
200 South Twelfth Avenue
Marshalltown, Iowa 50158

Terms: Prices quoted on request.

Additional information: A suggested description for each slide is available in printed form as a guide in the presentation of this program.
TEACHING MODELS
Identification Code: Sample Controls
Title: Sample Controls
Description: Actual Operational Sample Controls.
Appropriate for: High School Course; Two-Year College Course
Source: Robertshaw Controls Company, Milford Division
155 Hill Street, Milford, Connecticut 06461
Terms: Quotation of price on request.

Identification Code: None
Title: Mechanical Teaching Models
Description: Models designed to show the basic principles of air handling and the concepts relative to air conditioning in general. Subjects include: Infiltration, Humidity, Chimney Effect, and many others.
Appropriate for: High School Course; Two-Year College Course
Source: Lennox Industries Inc.
200 South Twelfth Avenue
Marshalltown, Iowa 50158
Terms: Net cash, FOB Marshalltown. Price list on request.
Additional information: These models have been developed in conjunction with Harvard University Graduate School of Design and are currently being used in a number of different schools at the university level.

Identification Code: None
Title: A 2' x 2' Display Board
Description: The Display Board contains five cutaway standard Alco Valves.
Appropriate for: High School Course; Two-Year College Course
Source: Alco Controls Corporation, Advertising Department
Box 12700, St. Louis, Missouri 63141
Terms: Boards are made up to order. For information, contact the Advertising Department, Alco Controls Corporation.
Title: Structural Teaching Models

Description: A number of models are available to teach basic principles of structure. These include: Column Buckling, Column Behavior, Stresses and Strains, plus many others.

Appropriate for: High School Course; Two-Year College Course

Source: Lennox Industries Inc.
200 South Twelfth Avenue
Marshalltown, Iowa 50158

Terms: Net cash, FOB Marshalltown. Price list on request.

Additional information: These models have been developed in conjunction with Harvard University Graduate School of Design and currently are being used in a number of different schools at the university level.

Identification Code: None

Title: Schematic Wiring Diagram Training Boards

Description: A basic console containing all the relays, transformers and other electrical gear required for many different types of electrical circuits.

Top of the console has a plug-in type terminal strip which will accept the male terminal strip from separate boards showing schematics for heat pump; gas electric package 2-5 ton; gas electric package 7 1/2 - 22 ton; power saver cycle; timed-off cycle, and cad cell cycle.

Plug-in boards contain switching circuits so that by use of manual switches in sequence the wiring schematic will be illuminated. Where applicable a thermostat is provided to give simulated normal operation after all circuits are energized.

Appropriate for: High School Course; Two-Year College Course

Source: Lennox Industries Inc.
200 South Twelfth Avenue
Marshalltown, Iowa 50158


Additional information: These boards are built to order and require approximately six weeks' delivery time.
MATERIAL FOR TRAINING

TRANSPORT REFRIGERATION MECHANICS
Identification Code: See below.

Title: Service Training Materials For Transport Refrigeration Mechanics

Description: See below.

Appropriate for: High School Course; Two-Year College Course

Source: Thermo King Corporation
314 West 90th Street
Minneapolis, Minnesota 55420

Terms: See below.

Additional information: Thermo King Corporation will provide equipment on memo billing for those schools that will provide a specific course outline which leads to employment in this service trade. For information, write to Mr. Walter W. Klauser, Training Director, Thermo King Corporation.

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Material</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>FILM KITS (INCLUDES 35 MM FILM STRIP, SOUND RECORD &amp; READER'S SCRIPT)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3273-2</td>
<td>Basic Electrical Circuits (Does not include Trouble Shooting)</td>
<td>$8.50</td>
</tr>
<tr>
<td>61-2</td>
<td>Air Pressure Defrost Switch</td>
<td>2.65</td>
</tr>
<tr>
<td>61-3</td>
<td>Timing the Injection Pump</td>
<td>5.50</td>
</tr>
<tr>
<td>61-4</td>
<td>Check and Adjust 3 &amp; 4 Switch Thermostat</td>
<td>5.50</td>
</tr>
<tr>
<td>61-5</td>
<td>Checking and Servicing the Alternator</td>
<td>2.75</td>
</tr>
<tr>
<td>62-6</td>
<td>Thermo King Refrigeration System</td>
<td>8.00</td>
</tr>
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</table>

FILM BOOKLETS (FOR USE WITH FILM KITS)

<table>
<thead>
<tr>
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<th>Material</th>
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<tbody>
<tr>
<td>3273-2</td>
<td>Basic Electrical Circuits and Trouble Shooting</td>
<td>X</td>
</tr>
<tr>
<td>61-2</td>
<td>Air Pressure Defrost Switch</td>
<td>X</td>
</tr>
<tr>
<td>61-3</td>
<td>Timing the Injection Pump</td>
<td>X</td>
</tr>
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<td>Check and Adjust 3 &amp; 4 Switch Thermostat</td>
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</tr>
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<td>61-5</td>
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<td>X</td>
</tr>
<tr>
<td>62-6</td>
<td>Thermo King Refrigeration System</td>
<td>X</td>
</tr>
</tbody>
</table>

REFRIGERATION SYSTEM (WORK SHEETS (Blanks, 8-1/2" x 11")

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Material</th>
<th>Price</th>
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</thead>
<tbody>
<tr>
<td>3696</td>
<td>Hot Gas Refrigeration System in color (8-1/2&quot; x 11&quot;)</td>
<td>X</td>
</tr>
<tr>
<td>3696</td>
<td>Work Sheets - For the above (8-1/2&quot; x 11&quot;) (Blanks)</td>
<td>X</td>
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<tr>
<td>3930</td>
<td>Hot Gas Refrigeration (Defrost Pressure Valve)</td>
<td>X</td>
</tr>
<tr>
<td>3931</td>
<td>ROL &amp; SRL Reverse Cycle System (8-1/2&quot; x 11&quot;) (Blanks)</td>
<td>X</td>
</tr>
<tr>
<td>3709</td>
<td>UWD - Reverse Cycle System (8-1/2&quot; x 11&quot;) (Blanks)</td>
<td>X</td>
</tr>
<tr>
<td>3816-1</td>
<td>NWD, SRL, RL, KL - 3 Way Valve Refrigeration System (8-1/2&quot; x 11&quot;) (Blanks)</td>
<td>X</td>
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<tr>
<td>3863</td>
<td>UWD - 3 Way Valve Refrigeration System (8-1/2&quot; x 11&quot;) (Blank)</td>
<td>X</td>
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<tr>
<td>3079-4</td>
<td>Temperature - Pressure Charts (Calling Card Size)</td>
<td>X</td>
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<tr>
<td>Code No.</td>
<td>Material</td>
<td>Price</td>
</tr>
<tr>
<td>---------</td>
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<tr>
<td>3086</td>
<td>KL Wiring Diagram (8-1/2&quot; x 11&quot;)</td>
<td>X</td>
</tr>
<tr>
<td>3061</td>
<td>RL Wiring Diagram (Before Serial #9900)(8-1/2&quot; x 11&quot;)</td>
<td>X</td>
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<tr>
<td>3585</td>
<td>SRL Wiring Diagram (Before Serial #3100)(8-1/2&quot; x 11&quot;)</td>
<td>X</td>
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<tr>
<td>3857</td>
<td>ROL Wiring Diagram (After Serial #3300)-KL-62(8-1/2&quot; x 11&quot;)</td>
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<tr>
<td>3855</td>
<td>SRL Wiring Diagram (After Serial #3100)-RL-(After #9900) 8-1/2&quot; x 11&quot;</td>
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</tr>
<tr>
<td>3859-1</td>
<td>NWD62 Wiring Diagram (8-1/2&quot; x 11&quot;)</td>
<td>X</td>
</tr>
<tr>
<td>3861-1</td>
<td>UWD62-30 Wiring Diagram (8-1/2&quot; x 11&quot;)</td>
<td>X</td>
</tr>
</tbody>
</table>

**ELECTRICAL WIRING DIAGRAMS (8-1/2" x 11")**

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Material</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>3882</td>
<td>NWD - 30</td>
<td>X</td>
</tr>
<tr>
<td>3890</td>
<td>UWD - 30 (Westinghouse Alternator)</td>
<td>X</td>
</tr>
<tr>
<td>3893</td>
<td>UWD - 30 (Onan Alternator)</td>
<td>X</td>
</tr>
</tbody>
</table>

**REFRIGERATION WALL CHART SET**

- Three systems, cooling & heating (value $100.00)

**KITS (ON LOAN BASIS) - AVAILABLE FROM FIELD SERVICEMEN OR MINNEAPOLIS OFFICE**

- Air Pressure Defrost Switch
- Mounted 3 Switch Thermostat
- Portable Refrigeration Panel & Mock-Up, (Including Cut-A-Way Parts)

**THERMO KING FIELD SERVICEMEN MATERIALS**

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Material</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>1252-SV</td>
<td>Training Report Form (T.K. Field Servicemen Reports)</td>
<td></td>
</tr>
<tr>
<td>3088</td>
<td>Training Schedule - T. K. Factory Service School Schedule - Request by Title</td>
<td>X</td>
</tr>
</tbody>
</table>

**SUGGESTED STUDY GUIDES (ASSIGNMENT SHEETS) - Order by Title**

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Material</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>3135-2</td>
<td>To Study The Fundamentals of Refrigeration</td>
<td>X</td>
</tr>
<tr>
<td>3137-2</td>
<td>To Study The Refrigeration Cycle</td>
<td>X</td>
</tr>
<tr>
<td>3138-2</td>
<td>To Study The Construction &amp; Operation of Refrigeration Parts</td>
<td>X</td>
</tr>
<tr>
<td>3139-2</td>
<td>To Study The Construction of The Compressor</td>
<td>X</td>
</tr>
<tr>
<td>3136-2</td>
<td>To Study The Maintenance and Repair of The Compressor</td>
<td>X</td>
</tr>
<tr>
<td>4295</td>
<td>To Study The Construction and Operation of The CK Engine</td>
<td>X</td>
</tr>
<tr>
<td>4296</td>
<td>To Study The Construction and Operation of The CCK Engine</td>
<td>X</td>
</tr>
<tr>
<td>4297</td>
<td>To Study The Construction and Operation of The ICK Engine</td>
<td>X</td>
</tr>
<tr>
<td>4298</td>
<td>To Study The Construction and Operation of The OM 636 Engine</td>
<td>X</td>
</tr>
</tbody>
</table>

**INSTRUCTION BOOKS**

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Material</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>4035</td>
<td>Thermo King Basic Refrigeration (Factory Service School Text)</td>
<td>X</td>
</tr>
<tr>
<td>3993-1</td>
<td>Thermo King Service Tool Catalog</td>
<td>X</td>
</tr>
<tr>
<td>3394</td>
<td>Thermo King Unit Wiring Diagrams (With regular cover)</td>
<td>$6.25</td>
</tr>
<tr>
<td></td>
<td>With Hard Cover, 3-ring binder, and New Diagrams</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mailed Each six months</td>
<td>10.00</td>
</tr>
</tbody>
</table>

(Items Marked "X" - No Charge - Right reserved to limit quantities.)

50
STRIP FILM AND RECORD SETS
Identification Code: Part No. 821445

Title: "The Queen and You"

Description: This booklet and film that go with one another are public relations between the serviceman and the customers.

Appropriate for: High School Course; Two-Year College Course

Source: Whirlpool Corporation, Publication Department
229 Factory Street, LaPorte, Indiana 46350

Terms: $.10 each, Film and Record Package $7.00.

Additional information: 35 mm color film with narrating record. "The Queen and You".

Identification Code: Part No. 820942

Title: Basic Refrigeration System

Description: This booklet is the training on the understanding of the function of the refrigeration system.

Appropriate for: High School Course; Two-Year College Course

Source: Whirlpool Corporation, Publication Department
229 Factory Street, LaPorte, Indiana 46350

Terms: $.10 each, Film: $1.50.

Additional information: 35 mm color film strip Part No. 820948 "Basic Refrigeration System". Film takes from 1 to 3 hours depending on the group leader, group, and the materials being used along with the film.
Identification Code: Film Strip and Record

Title: Cooling Water on The Job

Description: Describes proper methods of cooling water treatment.

Appropriate for: Two-Year College Course

Source: Calgon Corporation (Jobber Sales Division)
P. O. Box 1346, Pittsburgh, Pennsylvania 15230

Additional information: 35 mm color film strip. Recommend use with a Du-Kane Micromatic Projector Model No. 14A390C. Recorded narration runs about 25 minutes.

Terms: Available on loan.

Identification Code: BTC - 1011 - 67

Title: "Air Distribution Design"

Description: Color film strip and two records running 30 minutes, designed to acquaint the student with fundamentals of designing a heating or cooling ducting system. Contents include discussions of air distribution patterns, outlets, method of calculating different duct configurations; system pressure; duct sizing; and through it a sample problem-solution is evolved.

Appropriate for: Two-Year College Course

Source: Nearest Bryant distributor or Bryant Manufacturing Company

Terms: Available on loan from former. Price $40.00 per set from latter.

Additional information: Illustrated 16 page color booklet reviews each frame in the film for self-study purposes. Price at $.60 per copy.

###
Identification Code: See below.

Title: Air Conditioning Fundamentals

Description: Sound slide film with 35 mm strip film in color, plus 33-1/3 RPM records. Text and reference booklets for each set (see below).

Appropriate for: High School Course; Two-Year College Course

Source: Carrier Air Conditioning Company
Carrier Parkway
Syracuse, New York 13201

Terms: Master Price Times A .7 Multiplier, Plus Postage.

Additional information: Also available through local Carrier distributors. Listed in the Yellow Pages of your Telephone Directory.

AIR CONDITIONING FUNDAMENTALS

These training aids are of two types:

1) A Sound Slide Film consisting of a 35 mm strip film in color, plus 33-1/3 RPM records with audible "beep". Total running time in minutes for records is shown in parentheses at the end of each description.

2) A Text and Reference Booklet which consists of a copy of the presentation script with reproduction of the visuals, work session and a quiz.

SOUND SLIDE FILMS

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Description</th>
<th>Master Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>200 SF1</td>
<td>INTRODUCTION - A basic, 3 part presentation illustrating the methods by which the body disposes of heat and regulates body temperature; the influence of temperature, humidity, and air motion on human comfort; the components, functions, and operating principles of an air conditioning system; the refrigeration cycle. (28)</td>
<td>$32.00</td>
</tr>
<tr>
<td>200 SF3</td>
<td>PSYCHROMETRICS - Covers the behavior of air vapor mixtures; step-by-step explanation of the psychrometric chart; cooling, dehumidifying, heat and evaporative cooling processes. Use of the chart in determining properties and solving problems is included. (33)</td>
<td>$32.00</td>
</tr>
</tbody>
</table>
LOAD ESTIMATING - Describes the factors pertaining to heat gain and heat loss which must be considered when estimating cooling and heating loads; the effect of solar heat on glass, walls, and roof; the methods of reducing heat gain or loss, storage effect and need for zoning in multi-room applications. (43)

AIR SIDE - Discusses the function of fans, outlets, and ducts in an air distribution system and the principles of air distribution for heating and cooling applications; the procedure for designing duct systems, using the ASHRAE duct friction chart. (43)

TEXT & REFERENCE BOOKLETS

INTRODUCTION (See 200 SF1) $1.00
PSYCHROMETRICS (See 200 SF3) $1.00
LOAD ESTIMATING (See 200 SF4) $1.00
AIR SIDE (See 200 SF7) $1.00

ABC'S of Central Air Conditioning

Color film strip and two records, running 36 minutes, designed to give the student a basic understanding of (a) how the human body gives off heat and remains comfortable; (b) how environment affects human comfort; (c) description of heating and refrigeration principles; (d) air distribution; and (f) how air conditioning works, step-by-step.

High School Course; Two-Year College Course

Nearest Bryant Distributor or Bryant Manufacturing Company

Available on loan from former. Price $40.00 per set from latter.

Film is supplemented by illustrated 24 page booklet which reviews each frame of film for self-study. Booklet priced at $.80 per copy.
Identification Code: RFT-210-121-3

Title: "Put 'em in Right", and, "Shootin' Service"

Description: This audio/visual utilizes 35 mm all color strip film and 33-1/3 RPM record to present its message. The record and film provides the viewer with the check points for the proper installation and servicing of thermostatic expansion valves. The presentation deals more with the practical than with the purely theoretical side of refrigeration and air conditioning service.

Appropriate for: High School Course; Two-Year College Course

Source: Sporlan Valve Company
7525 Sussex Avenue
St. Louis, Missouri 63143

Terms: Available on loan to schools at no charge. Address inquiries to: Education and Training Department.

Identification Code: None

Title: "Check Up, Clean Out, Check Back"

Description: Slide-sound program (35 mm, colored) on field servicing of refrigeration applications. Ranges from electrical component analysis to replacement of compressor, taking all of the necessary steps to insure a service-free life.

Appropriate for: Two-Year College Course

Source: Bendix-Westinghouse
950 East Virginia Street
Evansville, Indiana 47717

Terms: $50.00 for complete program.

Additional information: Program covered by comprehensive booklet available in unlimited quantities at no charge.

CAUTION: A special projector is needed to handle slides and tapes. A typical unit would be the LaBelle Maestro II.
Identification Code: RFT-210-121-1

Title: "The TEV Story ... Theory of Operation"

Description: This audio/visual presentation utilizes 35 mm all color strip film and magnetic tape voice recording at 3-3/4 IPS to describe the thermostatic expansion valve's theory of operation and application. Emphasis is placed upon superheat and the three fundamental pressures that actuate the valve because these pressures must be thoroughly understood if any real knowledge of the thermostatic expansion valve is to be gained. Running time of the audio/visual is 45 minutes.

Appropriate for: Two-Year College Course

Source: Sporlan Valve Company
7525 Sussex Avenue
St. Louis, Missouri 63143

Terms: Available on loan to schools at no charge.
Address inquiries to: Education and Training Department.

Additional information: Although the content of this presentation is not highly technical, full appreciation of the subject matter requires some prior knowledge of the refrigeration cycle as well as the refrigeration and air conditioning machinery that makes it function.

xxx
SLIDES AND RECORDS SET
Identification Code: GTR Series (16 Chapters) - See below.

Title: Fundamentals of Refrigeration

Description: Slide Record Sets with 2 x 2 colored slides and review booklet in color. (See below and following pages.)

Appropriate for: High School Course; Two-Year College Course

Source: Carrier Air Conditioning Company
Carrier Parkway, Syracuse, New York 13201

Terms: Master Price Times A .7 Multiplier, Plus Postage.

Additional information: Also available through local Carrier distributors. Listed in the yellow pages of your Telephone Directory.

**FUNDAMENTALS OF REFRIGERATION**

**SLIDE RECORD SETS**

This series of slide record sets constitutes a course in Fundamentals of Refrigeration.

Each individual set consists of 33-1/3 RPM records, 35 mm color slides and a printed lecture or slide review booklet.

This GTR Series can be used as the basis for a good training course in refrigeration fundamentals. The course is easy to understand since the lecture is expressed in the simplest terms and the illustrations are reduced to fundamental concepts. Can be presented to a class with minimum preparation and effort.

Additional slide review booklets in full color are available for each set to be used as handout material for the student. After completion of the course, the set of booklets becomes a handy reference library.

**SLIDE RECORD SETS**

Total running time in minutes for records is shown in parentheses at end of each description.

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Description</th>
<th>Master Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>GTR-1</td>
<td>Definitions - Common terms are defined and illustrated. A basic review of elementary physics in which heat, temperature, pressure, etc. are explained. (34)</td>
<td>$20.00</td>
</tr>
<tr>
<td>GTR-2</td>
<td>Refrigeration Cycle - Open and closed cycle described. Basic system components shown and purpose described. Pressure-temperature chart and refrigerant boiling points also covered. (30)</td>
<td>$25.00</td>
</tr>
<tr>
<td>Code No.</td>
<td>Description</td>
<td>Master Price</td>
</tr>
<tr>
<td>---------</td>
<td>------------------------------------------------------------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>GTR-3</td>
<td><strong>Compressors</strong> - Acquaints the student with functions, types, power sources, operation, parts, lubrication, and compressor capacity. (48)</td>
<td>$32.00</td>
</tr>
<tr>
<td>GTR-4</td>
<td><strong>Condensers - Receivers</strong> - A look at condenser theory, water, air and evaporative condensers as well as the part that a receiver plays in the system. (25)</td>
<td>$20.00</td>
</tr>
<tr>
<td>GTR-5</td>
<td><strong>Evaporators</strong> - Evaporator theory, heat balance, types and secondary systems. (26)</td>
<td>$21.00</td>
</tr>
<tr>
<td>GTR-6</td>
<td><strong>Metering Devices</strong> - Theory, types, operating principles and pressures throughout low side. (42)</td>
<td>$25.00</td>
</tr>
<tr>
<td>GTR-7</td>
<td><strong>Basic Cycle Controls</strong> - Definition, primary and secondary controls, principles of operation and use. (55)</td>
<td>$28.00</td>
</tr>
<tr>
<td>GTR-8</td>
<td><strong>Refrigerant Characteristics</strong> - Thermodynamics and physical properties of most common refrigerants. (38)</td>
<td>$28.00</td>
</tr>
<tr>
<td>GTR-9</td>
<td><strong>Refrigerant Oils</strong> - Requirements, classification and characteristics of refrigerant oils. (33)</td>
<td>$28.00</td>
</tr>
<tr>
<td>GTR-10</td>
<td><strong>Accessories</strong> - Major system accessories, principles of operation and most common usage. (27)</td>
<td>$22.00</td>
</tr>
<tr>
<td>GTR-11</td>
<td><strong>Piping</strong> - Requirements, proper piping practice, oil return, insulation and hangers. (34)</td>
<td>$24.00</td>
</tr>
<tr>
<td>GTR-12</td>
<td><strong>Dehydration</strong> - Moisture, source, effect, determination, and removal. (40)</td>
<td>$22.00</td>
</tr>
<tr>
<td>GTR-13</td>
<td><strong>Charging and Discharging Systems</strong> - Methods and measurement in adding refrigerant to and removing refrigerant from a system. (48)</td>
<td>$30.00</td>
</tr>
<tr>
<td>GTR-14</td>
<td><strong>Installation Procedures</strong> - Equipment - Equipment placement, piping, electrical, sheet metal, check test and start. (39)</td>
<td>$30.00</td>
</tr>
<tr>
<td>GTR-15</td>
<td><strong>Multiple Systems</strong> - How use in multiple affects the application of compressors, evaporators, condensers and metering devices. (27)</td>
<td>$25.00</td>
</tr>
<tr>
<td>GTR-16</td>
<td><strong>Trouble Shooting</strong> - Most common problem with basic cycle components, their cause and correction. (40)</td>
<td>$25.00</td>
</tr>
</tbody>
</table>
### SLIDE REVIEW BOOKLETS

Student booklets containing slide and script reproduction in color. Available in Chapters 1 through 16 inclusive.

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Description</th>
<th>Master Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>GTR1-201</td>
<td>DEFINITIONS</td>
<td>.60¢</td>
</tr>
<tr>
<td>GTR2-201</td>
<td>REFRIGERATION CYCLE</td>
<td>.60¢</td>
</tr>
<tr>
<td>GTR3-201</td>
<td>COMPRESSORS</td>
<td>.60¢</td>
</tr>
<tr>
<td>GTR4-201</td>
<td>CONDENSERS - RECEIVERS</td>
<td>.60¢</td>
</tr>
<tr>
<td>GTR5-201</td>
<td>EVAPORATORS</td>
<td>.60¢</td>
</tr>
<tr>
<td>GTR6-201</td>
<td>METERING DEVICES</td>
<td>.60¢</td>
</tr>
<tr>
<td>GTR7-201</td>
<td>BASIC CYCLE CONTROLS</td>
<td>.60¢</td>
</tr>
<tr>
<td>GTR8-201</td>
<td>REFRIGERANT CHARACTERISTICS</td>
<td>.60¢</td>
</tr>
<tr>
<td>GTR9-201</td>
<td>REFRIGERANT OILS</td>
<td>.60¢</td>
</tr>
<tr>
<td>GTR10-201</td>
<td>ACCESSORIES</td>
<td>.60¢</td>
</tr>
<tr>
<td>GTR11-201</td>
<td>PIPING</td>
<td>.60¢</td>
</tr>
<tr>
<td>GTR12-201</td>
<td>DEHYDRATION</td>
<td>.60¢</td>
</tr>
<tr>
<td>GTR13-201</td>
<td>CHARGING AND DISCHARGING SYSTEMS</td>
<td>.60¢</td>
</tr>
<tr>
<td>GTR14-201</td>
<td>INSTALLATION PROCEDURES</td>
<td>.60¢</td>
</tr>
<tr>
<td>GTR15-201</td>
<td>MULTIPLE SYSTEMS</td>
<td>.60¢</td>
</tr>
<tr>
<td>GTR16-201</td>
<td>TROUBLE SHOOTING</td>
<td>.60¢</td>
</tr>
<tr>
<td>GTR16-102</td>
<td>ROTARY TROUBLE CHART - Complete refrigeration trouble chart in disc form for use with Chapter 16.</td>
<td>$1.00</td>
</tr>
</tbody>
</table>

###
Identification Code: GTE Series (9 Chapters)

Title: Applied Electricity - Air Conditioning

Description: Slide Record Sets with 2 x 2 slides and review booklet. (See below and following pages.)

Appropriate for: High School Course; Two-Year College Course

Source: Carrier Air Conditioning Company
Carrier Parkway, Syracuse, New York 13201

Terms: Master Price Times A .7 Multiplier, Plus Postage.

Additional information: Also available through local Carrier distributors. Listed in the yellow pages of your Telephone Directory.

APPLIED ELECTRICITY - AIR CONDITIONING

SLIDE RECORD SETS

Set consists of 33-1/3 RPM records, 35 mm slides and one copy of the slide review booklet. Physical makeup same as GTR. Total running time in minutes for records is shown in parentheses at end of each description.

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Description</th>
<th>Master Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>GTE-1</td>
<td><strong>Wiring Symbols</strong> - Introduces symbols, describes the device represented by the symbol, and its normal purpose in the circuit.</td>
<td>$24.00</td>
</tr>
<tr>
<td></td>
<td>(46)</td>
<td></td>
</tr>
<tr>
<td>GTE-2</td>
<td><strong>The Wiring Diagram</strong> - Develops the essential electrical elements of the circuit. Builds the basic schematic wiring diagram.</td>
<td>$23.00</td>
</tr>
<tr>
<td></td>
<td>(34)</td>
<td></td>
</tr>
<tr>
<td>GTE-3</td>
<td><strong>Diagram Exercises</strong> - Carries the schematic diagram forward into more complex circuits.</td>
<td>$25.00</td>
</tr>
<tr>
<td></td>
<td>(34)</td>
<td></td>
</tr>
<tr>
<td>GTE-4</td>
<td><strong>Electric Meters</strong> - Shows and describes the various types of meters and describes their use in trouble shooting.</td>
<td>$23.00</td>
</tr>
<tr>
<td></td>
<td>(38)</td>
<td></td>
</tr>
<tr>
<td>GTE-5</td>
<td><strong>Alternating Current</strong> - Simple descriptions of A.C. Terms for the service mechanic.</td>
<td>$27.00</td>
</tr>
<tr>
<td></td>
<td>(28)</td>
<td></td>
</tr>
<tr>
<td>GTE-6</td>
<td><strong>Single Phase Motors</strong> - Develops electrical requirements and covers different ways they can be fulfilled. Shaded pole, split phase, P.S.C. and C.S.R.</td>
<td>$23.00</td>
</tr>
<tr>
<td></td>
<td>(41)</td>
<td></td>
</tr>
<tr>
<td>GTE-7</td>
<td><strong>Single Phase Motors</strong> - Testing various types of single phase motors and how to check them.</td>
<td>$26.50</td>
</tr>
<tr>
<td></td>
<td>(32)</td>
<td></td>
</tr>
</tbody>
</table>

64
<table>
<thead>
<tr>
<th>Code No.</th>
<th>Description</th>
<th>Master Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>GTE-8</td>
<td><strong>Motor Protective Devices</strong> - Types, how they operate location, motor protection systems. (39)</td>
<td>$26.00</td>
</tr>
<tr>
<td>GTE-9</td>
<td><strong>Trouble Shooting</strong> - The Check Test - Eliminate method of electrical trouble shooting in air conditioning. (32)</td>
<td>$18.50</td>
</tr>
</tbody>
</table>

**SLIDE REVIEW BOOKLETS**

Slide review booklets containing slide and script reproduction. Available in Chapters 1 through 9 inclusive.

- **GTE1-101**  WIRING SYMBOLS  .50¢
- **GTE2-101**  THE WIRING DIAGRAM  .50¢
- **GTE3-101**  DIAGRAM EXERCISES  .50¢
- **GTE4-101**  ELECTRIC METERS  .50¢
- **GTE5-101**  ALTERNATING CURRENT  .50¢
- **GTE6-101**  SINGLE PHASE MOTORS  .50¢
- **GTE7-101**  SINGLE PHASE MOTORS  .50¢
- **GTE8-101**  MOTOR PROTECTIVE DEVICES  .50¢
- **GTE9-101**  TROUBLE SHOOTING  .50¢
Identification Code: GTA Series

Title: General Training - Advanced

Description: Slide Record Sets with 2 x 2 colored slides and review booklet in color. (See below.)

Appropriate for: High School Course; Two-Year College Course

Source: Carrier Air Conditioning Company
Carrier Parkway, Syracuse, New York 13201

Terms: Master Price Times A .7 Multiplier, Plus Postage.

Additional information: Also available through local Carrier distributors. Listed in the yellow pages of your Telephone Directory.

GENERAL TRAINING - ADVANCED

SLIDE RECORD SETS

Same physical make-up as GTR and GTE.

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Description</th>
<th>Master Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>GTA-1</td>
<td><strong>Oil Refrigerant Migration</strong> - The cause, effect and prevention of crankcase dilution. (42)</td>
<td>$25.50</td>
</tr>
<tr>
<td>GTA-2</td>
<td><strong>Cleanout After Burnout</strong> - A discussion on the various methods and their relative merits. (40)</td>
<td>$24.00</td>
</tr>
<tr>
<td>GTA-3</td>
<td><strong>Air, Air Problems &amp; Measurement</strong> - Deals with the various problems of air handling and in a manner easily understood by the serviceman. (61)</td>
<td>$27.50</td>
</tr>
<tr>
<td>GTA-4</td>
<td><strong>Heat Pumps</strong> - Covers the theory of operation and control of the heat pump, primarily dealing with small packaged equipment. (70)</td>
<td>$32.00</td>
</tr>
<tr>
<td>GTA-6</td>
<td><strong>Gas Heat</strong> - Covers the theory of heating with gas and its application to heating equipment. (42)</td>
<td>$27.50</td>
</tr>
</tbody>
</table>

SLIDE REVIEW BOOKLETS

Slide review booklets containing the slide and script reproduction in color available for above sets.

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Description</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>GTA1-101</td>
<td><strong>OIL REFRIGERANT MIGRATION</strong></td>
<td>.60¢</td>
</tr>
<tr>
<td>GTA2-101</td>
<td><strong>CLEANOUT AFTER BURNOUT</strong></td>
<td>.60¢</td>
</tr>
<tr>
<td>GTA3-101</td>
<td><strong>AIR, AIR PROBLEMS &amp; MEASUREMENT</strong></td>
<td>.60¢</td>
</tr>
<tr>
<td>GTA4-101</td>
<td><strong>HEAT PUMPS</strong></td>
<td>.60¢</td>
</tr>
<tr>
<td>GTA6-101</td>
<td><strong>GAS HEAT</strong></td>
<td>.60¢</td>
</tr>
</tbody>
</table>
SOUND MOTION PICTURE FILMS
Identification Code: None

Title: "Search for Total Comfort"

Description: 16 mm colored-sound film. Running time approximately seventeen (17) minutes. Includes all of the elements required for a total comfort system, including heating, air conditioning, humidification, de-humidification and fresh air. Story line takes a couple through their investigation with regard to heating and air conditioning in their new home.

Appropriate for: High School Course; Two-Year College Course

Source: Lennox Industries Inc.
200 South Twelfth Avenue
Marshalltown, Iowa  50158

Terms: Available on loan through film library of Modern Talking Picture Service, C/O Roa's Films, 1696 North Astor Street, Milwaukee, Wisconsin  53202

Additional information: A non-commercial film designed for showing on T.V. stations, to service clubs, or other groups interested in Total Comfort.

Identification Code: None

Title: "Schools are Built for Learning"

Description: 16 mm colored-sound film. Running time approximately twenty-three (23) minutes. Subject matter includes the construction of system schools with the SCSD concept, in various sections of the country. Many of the questions involved in planning a system school, as well as the results which can be expected, are shown.

Appropriate for: High School Course; Two-Year College Course

Source: Lennox Industries Inc.
200 South Twelfth Avenue
Marshalltown, Iowa  50158

Terms: Available on loan through film library of Modern Talking Picture Service, C/O Roa's Films - 1696 North Astor Street, Milwaukee, Wisconsin  53202

Additional information: The film was designed for presentation to school boards, architects and educators and also includes a five (5) minute special trailer at the end on vocational-technical schools.
Title: Industrial Exhaust Film

Description: 16 mm film in color, with sound, 14 to 16 minutes. Film deals with hood designs, air velocities, etc. for industrial ventilation and dust collection.

Appropriate for: Two-Year College Course

Source: American Air Filter Company, Inc.
215 Central Avenue, Louisville, Kentucky  40208

Terms: Free on loan basis. Suggest lead time of 3 to 4 weeks.

Identification Code: None

Title: Hospital Sepsis

Description: Film was produced by Johnson and Johnson and is 16 mm, in color, with sound. Approximate showing time is 25 minutes. As the title indicates this film deals with the control of bacteria in hospitals and the source of infections.

Appropriate for: Two-Year College Course

Source: American Air Filter Company, Inc.
215 Central Avenue, Louisville, Kentucky  40208

Terms: Free on loan basis. Suggest lead time of 3 to 4 weeks.

Identification Code: None

Title: "The Story of Automatic Refrigerant Controls"

Description: A 16 mm color sound film. Illustrates the theory and operation of automatic control devices. This film runs approximately 30 minutes.

Appropriate for: High School Course; Two-Year College Course

Source: Alco Controls Corporation, Advertising Department
Box 12700, St. Louis, Missouri  63141

Terms: Available on a loan basis, free of charge.
Title: Guest Lecturers

Description: Alco field engineers are always available for educational programs featuring slide programs and/or product demonstrations. These programs are custom tailored by the field engineer for the audience involved.

Appropriate for: High School Course; Two-Year College Course

Source: Alco Controls Corporation, Advertising Department, Box 12700, St. Louis, Missouri 63141

Terms: Without charge. But contact the Advertising Department first, who will, in turn, contact the field engineer in the appropriate territory.

Identification Code: None

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Title: Guest Lecturers

Description: Guest Lecturers (with slides) are available upon request. One or two hour talks on the following subjects:

- The Story of Humidity.
- Design of Grease Filter Equipped Kitchen Exhaust System.

Appropriate for: High School Course; Two-Year College Course

Source: Research Products Corporation
1015 East Washington Avenue
Madison, Wisconsin 53703


Identification Code: None

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