

SER103

General Training A/C 1 - Part III

Learn the Basics of Refrigeration Components & Systems

Course Content - Evaporators, Metering Devices

This is the second of eight sessions on the fundamentals of refrigeration. Each session will last about three and a half hours and the complete course about 28 hours. This is time enough to cover only the basic operating principles of refrigeration systems. The principles of air conditioning and electricity will be covered in later training programs. Each session is divided into several parts and each part is sub-divided into two sections. The first part is a presentation of the subject and the second is a discussion period during which any discrepancies or misunderstandings can be cleared up. A short quiz will be given at the beginning of the discussion period.

Who Should Attend

Anyone who wishes a fundamental understanding of air conditioning components, especially **installation and service technicians**

Learning Outcomes

- Be able to accurately diagnose A/C problems
- Be able to service A/C problems more quickly and efficiently

What You Will Learn in Part III

- Evaporator definition and function
- Pressure/enthalpy diagram
- Typical refrigerant changes
- Expansion characteristics
- Direct and flooded evaporators
- Direct expansion evaporators
- Chilled Water systems
- Evaporator capacity and control
- Types of metering devices
- Theory of metering devices
- Principles of operation for metering devices

What You Will Get

- Books 5 & 6 of the GTAC 1 program
- Sandwiches served

Program Duration - 3.5 hours

SER104

General Training A/C 1 - Part IV

Learn the Basics of Refrigeration Components & Systems

Course Content - Refrigerant Characteristics, Basic Cycle Controls

This is the second of eight sessions on the fundamentals of refrigeration. Each session will last about three and a half hours and the complete course about 28 hours. This is time enough to cover only the basic operating principles of refrigeration systems. The principles of air conditioning and electricity will be covered in later training programs. Each session is divided into several parts and each part is sub-divided into two sections. The first part is a presentation of the subject and the second is a discussion period during which any discrepancies or misunderstandings can be cleared up. A short quiz will be given at the beginning of the discussion period.

Who Should Attend

Anyone who wishes a fundamental understanding of air conditioning components, especially **installation and service technicians**

Learning Outcomes

- Be able to accurately diagnose A/C problems
- Be able to service A/C problems more quickly and efficiently

What You Will Learn in Part IV

- Definition of refrigerant
- Typical refrigerants
- Thermodynamic properties
- Physical properties
- Definition of cycle controls
- Primary controls
- Secondary controls
- Principle of operation

What You Will Get

- Books 6 & 7 of the GTAC 1 program
- Sandwiches served

Program Duration - 3.5 hours