

# HVAC TRAINING CLASS DESCRIPTIONS



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## **ComfortNet**

This class will provide a thorough overview of the Comfort Net communicating control designed to simplify high efficiency Goodman and Amana heating and cooling equipment. We will cover Introduction and benefits of using Communicating controls, Technical training that includes Installation, Set up and Troubleshooting of systems installed in either Communicating or Non Communicating modes. This control system will be part of all 16 / 18 SEER Two Stage Air Conditioners, Heat Pumps, Variable Speed Air handlers and Variable speed Gas furnaces.

## **Electrical in HVAC**

To provide technicians with both the skills and confidence to tackle any electrical system malfunction, with emphasis on rapid discovery of the failed component and root cause determination. In this Module, technicians learn diagnostic techniques that they can apply immediately, back on the job. Understanding the basics makes troubleshooting electrical systems much less intimidating.

## **Gas Furnace – Installation**

This module covers the installation of medium to high efficiency gas furnaces used in central heating applications, from the required clearances to final settings of the appliance.

The program will provide detailed information with the expectation that the technician will develop greater understanding and a higher comfort level when installing the new generation of gas furnaces. The Gas Furnace Installation module is a valuable tool for those who are interested in becoming successful installation technicians.

## **Gas Furnace – Service**

Focusing on the inspection of operating equipment and troubleshooting problem units, this module covers the servicing of medium to high efficiency gas furnaces used in central heating applications.

The program will provide detailed information with the expectation that the technician will develop greater understanding and a higher comfort level when servicing the new generation of gas furnaces. The Gas Furnace Service module is a valuable tool for those who are interested in becoming successful service technicians.

## **Heat Pumps – Installation**

Detailing placement of the unit to initial start-up, this module covers the installation of split system heat pumps and straight air conditioners.

The program will provide detailed information with the expectation that the technician will develop greater understanding and a higher comfort level when installing medium to high SEER equipment. The Heat Pump Installation module is a valuable tool for those who are interested in becoming successful installation technicians.

## **Heat Pumps – Service**

Focusing on the inspection of operating equipment and troubleshooting problem units, this module covers the servicing of split system heat pumps and straight air conditioners.

The program will provide detailed information with the expectation that the technician will develop greater understanding and a higher comfort level when servicing split systems. The Heat Pump Service module is a valuable tool for those who are interested in becoming successful service technicians.

## **Setting Up An Oil Burner**

One of the most important issues facing the oil heat industry today is the need for qualified, well-trained technicians who can set-up new equipment accurately and keep existing systems operating efficiently. This hands-on training session will cover the basic components of an oil burner, its proper setup using instruments, and explanations of the resultant readings.

## **Measuring and Understanding Static Pressure**

This hands-on session will allow attendees to get up close and personal with one of the most misunderstood aspects of an HVAC system. Covering static pressure, TESP and pressure drop across various components – attendees will learn how and where to take these critical measurements. Static pressure can be both a friend AND an enemy, and we will explore how to determine which one it is for you.

## **Understanding Superheat and Subcooling**

This session will provide an overview of Superheat and Subcooling and how each are used not only in charging a unit, but as troubleshooting tools as well. Proper measurement and calculations will be discussed, along with the instruments needed for accurate readings.

## **Basic Electric Skills**

This class is ideal for installers and new service technicians. Students will learn:

- Electrical basics for residential HVAC work
- The basic components of an electrical circuit and how to troubleshoot the circuit with VOLT, OHM, and AMPERAGE meters
- About 220V, 110V, AND 24V circuits and the practical readings and applications of these with HVAC equipment
- How to identify electrical symbols and read both pictorial and ladder diagrams

## **Basic A/C Install & Service**

This class is ideal for installers and new service technicians. Students will learn:

- Setting the Unit
- Proper Piping
- Electrical Basics
- Changing Techniques
- Brazing Tips
- Evacuation Standards
- How to identify new profit centers

## **Advanced A/C Diagnostics & Airflow**

Students will learn:

- Air Flow Measurement and the Effects on the System
- Capacity Measurement
- Charging Techniques
- Electrical Troubleshooting
- Evaporator Coil Evaluation
- Refrigerant Circuit Troubleshooting
- How to identify new profit centers

## **Heating Inspection**

Students will learn:

- Students will learn how to evaluate the installation area per the National Fuel Gas Code
- Important facts concerning vent inspections
- Estimating the heating systems duct performance
- Evaluating the application and air flow through the cooling coil and filter
- Combustion testing the equipment to increase performance and safety
- Responding to CO calls and gas leak calls

## **Hands On Heat**

Students are encouraged to bring their own tools and meters to class. Students will learn:

- Ignition Controls
- Flame rectification troubleshooting
- PSC and variable motors
- Vent systems
- Pressure switches
- How to identify issues that present profit opportunities

## **Air Flow Skills**

Whether the function is heating, cooling, or fan circulation, individuals working in the HVAC industry need to know how to control air flow. Students are encouraged to bring their own tools, manometers and meters to class.

Students in this class will learn how to:

- Measure air flow across all types of furnaces and air handlers
- What the correct air flows for different types of HVAC equipment including heat pumps, gas furnaces, propane furnaces, oil furnaces and A/C units
- Troubleshoot PCS motors, ECM motors and EEM motors
- Determine pressure drops through system components

## **Heat Pump Service & Installation**

Students will learn:

- Correct Installation and service practices for Heat pumps and Air Handlers
- How to Evaluate System performance
- How to identify new profit centers

## **A/C Clean & Check**

The HVAC Technical Training program can provide the technical training your technicians need to properly service A/C and heat pump equipment. The program will also train technicians how to uncover opportunities for additional products and services that every home needs.

## **Furnace Clean & Check**

The HVAC Technical Training program can provide the technical training your technicians need to properly service gas and propane furnaces. The program will also train technicians how to uncover opportunities for additional products and services that every home needs.

## **Customer Service Soft Skills For Technicians**

The best technician may damage your business without the proper soft skill training. This class is for service technicians. Students will learn skill sets that help them interact with today's more demanding customers in a positive professional manner.