



# Technical and Sales Training & NATE Testing Catalog

October - December 2015



**REGISTER FOR TRAINING CLASSES AND NATE TESTING ON  
THE FOLLOWING WEBSITE (BEGINNING ON 9/1/2015)**

<https://cematraining.com/>

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# TECHNICAL TRAINING CLASS SCHEDULE

## Chesapeake VA

October 8, 2015	8:00am to 12:00pm	Heat Pump Service and Troubleshooting
October 14, 2015	8:00am to 12:00pm	Airflow Dynamics and Troubleshooting
October 15, 2015	8:00am to 12:00pm	Carrier Ductless Installation and Service
October 22, 2015	8:00am to 12:00pm	Variable Speed A/C & Heat Pump Operation & Troubleshooting
October 29, 2015	8:00am to 12:00pm	Gas Furnace Troubleshooting Codes Explained
November 5, 2015	8:00am to 12:00pm	Infinity & Evolution Touchscreen Controls

## Hanover MD

October 8, 2015	8:00am to 12:00pm	Heat Pump Service and Troubleshooting
October 13, 2015	8:00am to 12:00pm	Airflow Dynamics and Troubleshooting
October 14-15, 2015	8:00am to 4:00pm	Carrier 3V / VVT Controls Systems
October 22, 2015	8:00am to 12:00pm	Variable Speed A/C & Heat Pump Operation & Troubleshooting
October 28, 2015	8:00am to 12:00pm	Carrier Ductless Installation and Service
October 29, 2015	8:00am to 12:00pm	Gas Furnace Troubleshooting Codes Explained
November 4, 2015	8:00am to 4:00pm	Carrier / Bryant Light Commercial RTUs and Split Systems
November 5, 2015	8:00am to 12:00pm	Infinity & Evolution Touchscreen Controls
November 10, 2015	8:00am to 12:00pm	NATE Core Test Review

## Richmond VA

October 2, 2015	8:00am to 12:00pm	Heat Pump Service and Troubleshooting
October 14, 2015	8:00am to 12:00pm	Carrier Ductless Installation and Service
October 15, 2015	8:00am to 12:00pm	Airflow Dynamics and Troubleshooting
October 16, 2015	8:00am to 12:00pm	Variable Speed A/C & Heat Pump Operation & Troubleshooting
October 23, 2015	8:00am to 12:00pm	Gas Furnace Troubleshooting Codes Explained
October 30, 2015	8:00am to 12:00pm	Infinity & Evolution Touchscreen Controls
November 18, 2015	8:00am to 4:00pm	Carrier / Bryant Light Commercial RTUs and Split Systems

## Roanoke VA

October 7, 2015	8:00am to 12:00pm	Heat Pump Service and Troubleshooting
October 14, 2015	8:00am to 12:00pm	Airflow Dynamics and Troubleshooting
October 21, 2015	8:00am to 12:00pm	Variable Speed A/C & Heat Pump Operation & Troubleshooting
October 28, 2015	8:00am to 12:00pm	Gas Furnace Troubleshooting Codes Explained
November 4, 2015	8:00am to 12:00pm	Infinity & Evolution Touchscreen Controls
November 11, 2015	8:00am to 12:00pm	Carrier Ductless Installation and Service

## South Charleston, WV

October 7, 2015	8:00am to 12:00pm	Heat Pump Service and Troubleshooting
October 14, 2015	8:00am to 12:00pm	Airflow Dynamics and Troubleshooting
October 21, 2015	8:00am to 12:00pm	Variable Speed A/C & Heat Pump Operation & Troubleshooting
October 28, 2015	8:00am to 12:00pm	Gas Furnace Troubleshooting Codes Explained
November 4, 2015	8:00am to 12:00pm	Infinity & Evolution Touchscreen Controls
November 12, 2015	8:00am to 12:00pm	Carrier Ductless Installation and Service

## **Sterling VA**

October 6, 2015	8:00am to 12:00pm	Heat Pump Service and Troubleshooting
October 15, 2015	8:00am to 12:00pm	Airflow Dynamics and Troubleshooting
October 20, 2015	8:00am to 12:00pm	Variable Speed A/C & Heat Pump Operation & Troubleshooting
October 27, 2015	8:00am to 12:00pm	Gas Furnace Troubleshooting Codes Explained
October 29, 2015	8:00am to 12:00pm	Carrier Ductless Installation and Service
November 3, 2015	8:00am to 12:00pm	Infinity & Evolution Touchscreen Controls
November 11, 2015	8:00am to 4:00pm	Carrier / Bryant Light Commercial RTUs and Split Systems
November 12, 2015	8:00am to 12:00pm	NATE Core Test Review

## **Virtual (Web-Based)**

October 7, 2015	8:00am to 12:00pm	Heat Pump Service and Troubleshooting
October 14, 2015	8:00am to 12:00pm	Airflow Dynamics and Troubleshooting
October 21, 2015	8:00am to 12:00pm	Variable Speed A/C & Heat Pump Operation & Troubleshooting
October 28, 2015	8:00am to 12:00pm	Gas Furnace Troubleshooting Codes Explained
November 4, 2015	8:00am to 12:00pm	Infinity & Evolution Touchscreen Controls

## **SALES TRAINING CLASS SCHEDULE**

### **Hanover MD**

December 8, 2015	8:00am to 12:00pm	Avoiding the Pitfalls for HVAC Retail Sales
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### **Sterling VA**

December 10, 2015	8:00am to 12:00pm	Avoiding the Pitfalls for HVAC Retail Sales
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## **NATE TESTING SCHEDULE**

### **Hanover MD**

November 10, 2015	1:00pm to 5:00pm	NATE Testing Session
(Registration Deadline is October 27, 2105)		

### **Sterling VA**

November 12, 2015	1:00pm to 5:00pm	NATE Testing Session
(Registration Deadline is October 29, 2105)		

# TECHNICAL TRAINING CLASS DESCRIPTIONS

## Airflow Dynamics and Troubleshooting

The importance of the air side of any forced air system is often overlooked. If you don't have proper air flow, you will diminish the capacity of your HVAC system and shorten its life.

This class is designed for all personnel that design, install, and work on forced air systems.

### **Topics to be covered:**

- Defining System Air Requirements
- How and Where to Measure Air Flow, Duct Static Pressure, and Air Velocity
- How to Identify Duct Work Problems
- Understanding Pressure Drops through Equipment and Accessories
- Proper Use of Air Flow Measurement Tools

**Class Cost:** \$65 per student

**FAD Credit:** 4 Hours Technical

**Class is offered via Virtual Classroom (or Web Based) – See Page 4 for the schedule**

## Carrier / Bryant Gas Furnace Troubleshooting Codes Explained

This class is designed for installation and service technicians.

### **Topics to be covered:**

- Furnace Code Detailed Explanations
- Troubleshooting Procedures
- Tools Necessary for Proper Troubleshooting
- Correct Use of Tools and Instruments
- Common Mistakes and How to Avoid Them

**Class Cost:** \$65 per student

**FAD Credit:** 4 Hours Technical

**Class is offered via Virtual Classroom (or Web Based) – See Page 4 for the schedule**

## Carrier / Bryant Light Commercial RTUs and Split Systems

This class is designed for commercial service technicians to further their knowledge of Carrier / Bryant small to medium size package RTUs and split systems.

### **Topics to be covered:**

- Model / Serial Number Nomenclature
- Troubleshooting Common OEM Parts
- Economizers
- Low Ambient Controls
- Split System Refrigerant Piping
- Scrolling Marquee Display

Lunch will be provided

**Class Cost:** \$125 per student

**FAD Credit:** 8 Hours Technical

## **Carrier Ductless Installation and Service**

This class is designed for sales, installation and service personnel. During the class the basic installation, troubleshooting, diagnostic, and service repair procedures will be covered.

### **Topics to be covered:**

- Product Selection
- Installation Overview
- Wiring
- Refrigeration Connections
- System Start Up
- "How To"
  - Troubleshooting/Diagnostics
  - Repair Techniques

**Class Cost:** \$65 per student

**FAD Credit:** 4 Hours Technical

## **Carrier 3V / VVT Controls Systems**

This class is designed for commercial service technicians to further their knowledge of light commercial Carrier controls systems.

This class is required for dealers to purchase Carrier 3V / VVT Controls.

### **Topics to be covered:**

- Proper Installation Practices
- Communication and Controls Wiring
- Proper Use of System Pilot for Addressing and Programming 3V Controllers and Commissioning

***\*\*Class Size is Limited. No more than 2 students from any company will be accepted\*\****

Class is Scheduled for 2 days. Lunch will be provided.

**Class Cost:** \$250 per student

**FAD Credit:** 16 Hours Technical

## **Heat Pump Service and Troubleshooting**

This class is designed for basic and intermediate level installation and service technicians.

### **Topics to be covered:**

- Sequence of Operation
- Defrost Boards Explained
- Refrigeration Cycle
- Reversing Valves and Troubleshooting
- Compressor Troubleshooting
- Common Mistakes

**Class Cost:** \$65 per student

**FAD Credit:** 4 Hours Technical

**Class is offered via Virtual Classroom (or Web Based) – See Page 4 for the schedule**

## **Infinity and Evolution Touchscreen Controls (RECENTLY UPDATED)**

This class is designed for sales, installation and service personnel.

This class is required for dealers to purchase Carrier Infinity and Bryant Evolution controls.

### **Topics to be covered:**

- Installation
- Navigation
- Airflow Set Up
- Setting Up Wi-Fi Connections
- Software Upgrade Capabilities
- Humidification/Dehumidification Settings
- Troubleshooting Codes
- Troubleshooting Loss of Communication

**Class Cost:** \$65 per student

**FAD Credit:** 4 Hours Technical

**Class is offered via Virtual Classroom (or Web Based) – See Page 4 for the schedule**

## **NATE Core Exam Review**

This class is designed to prepare installation and service technicians to take the NATE Core exam.

### **Topics to be covered:**

- Successful Testing Pointers
- HVAC Formulas
- Definitions and Terminology
- Equipment Operation

**Class Cost:** \$65 per student

**FAD Credit:** 4 Hours Technical

## **Variable Speed A/C & Heat Pumps Operation and Troubleshooting Codes Explained**

This class is designed for sales, installation and service personnel.

This class is required for dealers to purchase Carrier and Bryant variable speed outdoor units.

### **Topics to be covered:**

- Greenspeed / Extreme Operation and Set Up
- 18/19 VS Operation and Set Up
- Troubleshooting Codes Explained
- Troubleshooting Procedures
- Tools Necessary for Proper Troubleshooting

**Class Cost:** \$65 per student

**FAD Credit:** 4 Hours Technical

**Class is offered via Virtual Classroom (or Web Based) – See Page 4 for the schedule**

# SALES TRAINING CLASS DESCRIPTIONS

## Avoid the Pitfalls for HVAC Retail Sales

This course is designed to help sales reps see the potential sale from a technical perspective which can enhance the sale, prevent costly errors and call backs that eat away at the job's profitability. In addition sales reps will learn how to add additional "sellable work" to the job instead of "eating" the cost, such as pulling new electrical wire because the current wire is insufficient.

### **Course Work Includes:**

- Site Assessment
- Current Equipment and What Information is Gleaned from It
- Potential Pitfalls to be Aware of BEFORE You Sell a System
- The End User Interview (How and What to Ask)
- Reviewing the Customer's Expectations with Them
- Choosing Equipment that Meets the End User's Needs
- Selling a System that Meets the End User's Expectations

**Instructor:** Tom Hoffmaster with CE Mid-Atlantic

**Class Cost:** FREE

**Brand:** Bryant and Carrier

**FAD Credit:** 4 Hours Sales

# NATE TESTING SESSION OVERVIEW

During our test session, participants will be able to take up to two of NATE's 19 Tests. To become NATE certified you must pass both a CORE and a SPECIALTY test of your choice. The certification can be in either the INSTALLATION or SERVICE path. Completing the Service Certification includes the Installation Certification. Completing the Heat Pump Certification includes the Air Conditioning Certification. Here is a list of the 19 Tests being offered:

Core (same for Installation and Service)

Air Conditioning Installation	Air Conditioning Service
Air Distribution Installation	Air Distribution Service
Air to Air Heat Pump Installation	Air to Air Heat Pump Service
Gas Heating (Air) Installation	Gas Heating (Air) Service
Oil Heating (Air) Installation	Oil Heating (Air) Service
Hydronics Gas Installation	Hydronics Gas Service
Hydronics Oil Installation	Hydronics Oil Service
Light Commercial Refrigeration Installation	Light Commercial Refrigeration Service
Commercial Refrigeration Installation	Commercial Refrigeration Service

NATE Tests Cost \$150 per Test.

More information on study materials to help prepare for the NATE exams can be found by visiting the NATE website at the following address:

<http://www.natex.org/site/352/Technicians/How-to-Prepare/Training-Resources>.

**Participants must bring a valid photo ID, two Number 2 pencils, and a non-programmable calculator to the testing session.**

***Registration is 2 weeks prior to the test session.***

***Test Session Begins Promptly at 1:00pm. Late Arrivals Will NOT Be Allowed to Attend.***

Contact John Gobble at (410) 981-4463 or via email to [john.gobble@carrierenterprise.com](mailto:john.gobble@carrierenterprise.com) if you have questions regarding NATE Testing.