



Technical and Sales Training & NATE Testing Catalog

March – May 2016



**REGISTER FOR TRAINING CLASSES AND NATE TESTING
ON THE FOLLOWING WEBSITE**

<https://cematraining.com/>

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TECHNICAL TRAINING CLASS SCHEDULE

Chesapeake VA

| | | |
|----------------|-------------------|--|
| March 9, 2016 | 8:00am to 12:00pm | Infinity / Evolution Updates / Troubleshooting |
| March 23, 2016 | 8:00am to 12:00pm | Residential Zoning |
| March 29, 2016 | 8:00am to 12:00pm | A/C Charge & Tune |
| March 30, 2016 | 8:00am to 12:00pm | Variable Speed A/C & Heat Pumps Installation |
| April 19, 2016 | 8:00am to 12:00pm | Variable Speed A/C & Heat Pumps Trouble Codes |
| April 21, 2016 | 8:00am to 12:00pm | Ductless Split Installation / Service |
| May 11, 2016 | 8:00am to 12:00pm | NATE Core Test Review |

Hanover MD

| | | |
|----------------|-------------------|--|
| March 9, 2016 | 8:00am to 12:00pm | A/C Charge & Tune |
| March 15, 2016 | 8:00am to 12:00pm | Infinity / Evolution Updates / Troubleshooting |
| March 23, 2016 | 8:00am to 12:00pm | Variable Speed A/C & Heat Pumps Installation |
| April 5, 2016 | 8:00am to 12:00pm | Variable Speed A/C & Heat Pumps Trouble Codes |
| April 6, 2016 | 8:00am to 4:00pm | Carrier / Bryant Light Commercial RTUs and Split Systems |
| April 8, 2016 | 8:00am to 12:00pm | NATE Core Test Review |
| April 12, 2016 | 8:00am to 12:00pm | Residential Zoning |
| April 13, 2016 | 8:00am to 12:00pm | Ductless Split Installation / Service |

Richmond VA

| | | |
|----------------|-------------------|--|
| March 11, 2016 | 8:00am to 12:00pm | Infinity / Evolution Updates / Troubleshooting |
| March 25, 2016 | 8:00am to 12:00pm | Residential Zoning |
| March 31, 2016 | 8:00am to 12:00pm | A/C Charge & Tune |
| April 1, 2016 | 8:00am to 12:00pm | Variable Speed A/C & Heat Pumps Installation |
| April 20, 2016 | 8:00am to 12:00pm | Ductless Split Installation / Service |
| April 21, 2016 | 8:00am to 12:00pm | Variable Speed A/C & Heat Pumps Trouble Codes |
| May 4, 2016 | 8:00am to 4:00pm | Carrier / Bryant Light Commercial RTUs and Split Systems |
| May 12, 2016 | 8:00am to 12:00pm | NATE Core Test Review |

Roanoke VA

| | | |
|----------------|-------------------|--|
| March 10, 2016 | 8:00am to 12:00pm | A/C Charge & Tune |
| March 17, 2016 | 8:00am to 12:00pm | Infinity / Evolution Updates / Troubleshooting |
| March 24, 2016 | 8:00am to 12:00pm | Variable Speed A/C & Heat Pumps Installation |
| April 6, 2016 | 8:00am to 12:00pm | Ductless Split Installation / Service |
| April 7, 2016 | 8:00am to 12:00pm | Variable Speed A/C & Heat Pumps Trouble Codes |
| April 14, 2016 | 8:00am to 12:00pm | Residential Zoning |

South Charleston, WV

| | | |
|----------------|-------------------|--|
| March 10, 2016 | 8:00am to 12:00pm | A/C Charge & Tune |
| March 17, 2016 | 8:00am to 12:00pm | Infinity / Evolution Updates / Troubleshooting |
| March 24, 2016 | 8:00am to 12:00pm | Variable Speed A/C & Heat Pumps Installation |
| April 5, 2016 | 8:00am to 12:00pm | Ductless Split Installation / Service |
| April 7, 2016 | 8:00am to 12:00pm | Variable Speed A/C & Heat Pumps Trouble Codes |
| April 14, 2016 | 8:00am to 12:00pm | Residential Zoning |

Sterling VA

| | | |
|-------------------|-------------------|--|
| March 8, 2016 | 8:00am to 12:00pm | A/C Charge & Tune |
| March 16, 2016 | 8:00am to 12:00pm | Infinity / Evolution Updates / Troubleshooting |
| March 17, 2016 | 8:00am to 4:00pm | Carrier / Bryant Light Commercial RTUs and Split Systems |
| March 22, 2016 | 8:00am to 12:00pm | Variable Speed A/C & Heat Pumps Installation |
| April 6, 2016 | 8:00am to 12:00pm | Variable Speed A/C & Heat Pumps Trouble Codes |
| April 12, 2016 | 8:00am to 12:00pm | Ductless Split Installation / Service |
| April 13, 2016 | 8:00am to 12:00pm | Residential Zoning |
| April 15, 2016 | 8:00am to 12:00pm | NATE Core Test Review |
| April 20-21, 2016 | 8:00am to 4:00pm | Carrier 3V / VVT Control Systems |

Virtual (Web-Based)

| | | |
|----------------|-------------------|--|
| March 10, 2016 | 8:00am to 12:00pm | A/C Charge & Tune |
| March 17, 2016 | 8:00am to 12:00pm | Infinity / Evolution Updates / Troubleshooting |
| March 24, 2016 | 8:00am to 12:00pm | Variable Speed A/C & Heat Pumps Installation |
| April 7, 2016 | 8:00am to 12:00pm | Variable Speed A/C & Heat Pumps Trouble Codes |
| April 14, 2016 | 8:00am to 12:00pm | Residential Zoning |

SALES TRAINING CLASS SCHEDULE

Chesapeake VA

| | | |
|----------------|-------------------|---|
| April 20, 2016 | 8:00am to 12:00pm | Avoiding the Pitfalls for HVAC Retail Sales |
| May 10, 2016 | 8:00am to 12:00pm | Residential Zoning for HVAC Retail Sales |

Hanover MD

| | | |
|----------------|-------------------|---|
| April 28, 2016 | 8:00am to 12:00pm | Avoiding the Pitfalls for HVAC Retail Sales |
| April 29, 2016 | 8:00am to 12:00pm | Residential Zoning for HVAC Retail Sales |

Richmond VA

| | | |
|----------------|-------------------|---|
| April 22, 2016 | 8:00am to 12:00pm | Avoiding the Pitfalls for HVAC Retail Sales |
| May 13, 2016 | 8:00am to 12:00pm | Residential Zoning for HVAC Retail Sales |

Roanoke VA

| | | |
|-------------|-------------------|---|
| May 3, 2016 | 8:00am to 12:00pm | Avoiding the Pitfalls for HVAC Retail Sales |
| May 4, 2016 | 8:00am to 12:00pm | Residential Zoning for HVAC Retail Sales |

Sterling VA

| | | |
|----------------|-------------------|---|
| April 26, 2016 | 8:00am to 12:00pm | Avoiding the Pitfalls for HVAC Retail Sales |
| April 27, 2016 | 8:00am to 12:00pm | Residential Zoning for HVAC Retail Sales |

Virtual (Web-Based)

| | | |
|-------------|-------------------|---|
| May 3, 2016 | 8:00am to 12:00pm | Avoiding the Pitfalls for HVAC Retail Sales |
| May 4, 2016 | 8:00am to 12:00pm | Residential Zoning for HVAC Retail Sales |

NATE TESTING SCHEDULE

Chesapeake VA

May 11, 2016 1:00pm to 5:00pm NATE Testing Session
(Registration Deadline is April 20, 2016)

Hanover MD

April 8, 2016 1:00pm to 5:00pm NATE Testing Session
(Registration Deadline is March 20, 2016)

Richmond VA

May 12, 2016 1:00pm to 5:00pm NATE Testing Session
(Registration Deadline is April 20, 2016)

Sterling VA

April 15, 2016 1:00pm to 5:00pm NATE Testing Session
(Registration Deadline is March 28, 2016)

TECHNICAL TRAINING CLASS DESCRIPTIONS

A/C Charge & Tune

This class is designed for installation and service personnel.

Topics to be covered:

- Refrigerant Cycle Review
- Charging Principles
- Proper Tools
- Importance of Airflow
- Cleaning and Care
- Troubleshooting

Class Cost: \$65 per student

FAD Credit: 4 Hours Technical

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 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

Ductless Splits Installation / Service

This class is designed for 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

- Application & Expectation
- Installation Overview
- Wiring
- Refrigerant Connections
- System Start Up

“How To”

- Troubleshooting / Diagnostics
- Interpret Error Codes
- Repair Techniques

Class Cost: FREE

FAD Credit: 4 Hours Technical

Infinity / Evolution Update & Troubleshooting

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

NATE CORE 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
- Communication Skills
- Equipment Operation

Class Cost: \$65 per student

FAD Credit: 4 Hours Technical

Residential Zoning

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

Topics to be covered:

- Basic Zoning Principles
- Zoning Kits Available
- Comfort Versus Efficiency
- Damper Types and Wiring
- Understanding By-Pass Dampers
- Wiring
- Troubleshooting

Class Cost: \$65 per student

FAD Credit: 4 Hours Technical

Variable Speed A/C & Heat Pumps Installation

This class is designed for sales, installation, and service personnel. This class is required for dealers to purchase Bryant and Carrier Variable Speed A/C and Heat Pumps.

Topics to be covered:

- Greenspeed / Extreme Overview
- 18/19 VS Overview
- Installation
- Servicing
- Troubleshooting

Class Cost: \$65 per student

FAD Credit: 4 Hours Technical

Variable Speed A/C & Heat Pumps Troubleshooting Codes Explained

(Does not qualify for purchase/installation certification)

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:

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

Class Cost: \$65 per student

FAD Credit: 4 Hours Technical

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. As well as 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

Residential Zoning for HVAC Retail Sales

This class is designed for those who sell, or design systems with residential zoning applications. It is essential for understanding residential zoning and how to apply it properly with great results.

Course Work Includes:

- Basic Zoning Principles
- Zoning Kits Available and How They Differ
- Comfort Versus Efficiency
- Damper Types and Wiring
- Understanding By-Pass Dampers and How to Size Properly
- How Infinity/Evolution Zoning Operates and Makes Decisions

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>.

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

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

Contact Tom Hoffmaster via email at huff@carrierenterprise.com if you have questions regarding NATE Testing.