

# ADVANCED HVAC EDUCATION & TRAINING



Leading the Industry in  
High-Performance HVAC™

**Deliver True System Performance and Set Your Company Apart**

## System Performance and Air Balancing Certification Program

Want to set your HVAC service company apart from your competition? Are you ready to move beyond the SEER and AFUE trap?

Did you know an estimated 50% of new HVAC equipment installations result in little or no energy saved, and even more end up with unresolved comfort issues?

This training program provides the keys to delivering true system performance. True system performance leads to enhanced comfort, safety, and energy efficiency for your customers, plus greater revenues and profitability for your company.

National Comfort Institute's HVAC System Performance and Air Balancing certification classes are designed to provide the right training for all your field personnel, including service technicians, installers, and sales people.

### **RESIDENTIAL HVAC SYSTEM PERFORMANCE**

**In this two-day certification class your field people will learn how to:**

- Discover and repair hidden energy-draining comfort system defects other companies miss every time
- Reduce call-backs and increase customer satisfaction
- Guarantee results using NCI's exclusive System Delivered Btu method
- Test both new and existing installations
- Provide real solutions through system renovations and documented results.

### **RESIDENTIAL AIR BALANCING**

**Provide certified Air Balancing on your installations with this day of training and certification:**

- More HVAC and energy professionals are discovering the importance of testing and balancing their installations for maximum system comfort and efficiency
- Many building departments and utility programs now require balancing reports
- Your ability to air balance your customers' HVAC systems will keep you ahead of the competition!



# Residential HVAC System Performance/ Residential Air Balancing

## BENEFITS:

- Open the door to increased sales and customer loyalty through professional testing and diagnostic services
- Increase average equipment changeout tickets by 100% or more by uncovering and repairing hidden system defects that lead to reduced comfort and increased energy consumption
- Reduce warranty and call-back costs up to 70% by diagnosing and correcting the real problem the first time
- Improve system operating efficiency from an average of 57% to over 80% – with the ability to prove your results to your customers
- Enhance profitability by selling highly profitable services at gross margins generally exceeding 60%
- Use HVAC performance diagnostic techniques to identify and solve system performance issues, improve IAQ and reduce energy consumption
- Differentiate yourself in your marketplace as a true beyond-the-box HVAC expert.

## AGENDA:

### Day 1: The Key Elements of HVAC System Performance

- Review the typical service call and its shortcomings
- Overview of test methods to identify performance issues
- Test instruments review - the good, the bad, and the ugly
- Static pressure, airflow, and temperature testing principles
- Verifying Btus at the equipment and at the registers
- Airflow testing and verification methods
- Static pressure measurement - a key diagnostic tool
- Measuring dry bulb temperatures and diagnostic properties
- Understanding total system performance.

### Day 2: Diagnose and Improve Poor System Performance

- Review of test methods, measurement, and calculations
- Temperature, humidity, and enthalpy measurement
- Equipment Btus versus delivered Btus at the registers
- Measuring airflow using NCI's 3 test methods: static pressure with fan tables, balancing hood, and duct traverse



**Register now and discover the High-Performance HVAC™ Difference!**

**For more information,  
call 800-633-7058 or visit  
NationalComfortInstitute.com**



- Score operating HVAC system performance with NCI's exclusive testing method
- Sharing findings with customers in easy to understand terms
- Air distribution system renovation and repair.

***The day concludes with NCI's exclusive Residential HVAC System Performance certification exam***

### **OPTIONAL TRAINING:**

Enhance your company's professional reputation with NCI's exclusive nationally recognized Residential Air Balancing certification and establish yourself as the true air balancing expert.

### **Benefits:**

- Increase revenue and profitability by offering professional in-house balancing services that far exceed the average service and equipment replacement margins
- Improve your ability to comply with new, tighter local, state, and federal building codes and energy requirements
- Reduce system performance issues and energy consumption while improving comfort, IAQ, and customer satisfaction
- Establish yourself as the go-to professional to solve long-standing problems
- Be able to perform your first balancing job immediately after completing the course!

## **Day 3: Testing & Balancing Residential Systems**

- History and purposes of balancing
- Performing an airflow traverse
- Preparing for a balancing project
- Setting fan airflow
- Air test and balance procedures
- Using an air balancing hood
- Overcoming balancing obstacles
- Final testing and documentation.

***The day concludes with NCI's exclusive Residential Air Balancing certification exam***

### **WHO SHOULD ATTEND?**

HVAC Professionals, NCI Certified Air Balancers, Service Technicians & Managers, Energy Improvement Contractors, Installers & Installation Managers  
Salespeople & Sales Managers.

### **NCI's Training and Certification Packages Include:**

- Course workbooks, Field References, and other training materials
- Many useful NCI report forms and procedures
- Certificates and Wallet cards upon passing certification exams and field testing
- 30 days of unlimited toll-free support.

**Deliver high quality repair, maintenance, and installation services, and produce professional reports and documentation to differentiate your company from your competition!**

**OFFER  
HOMEOWNERS  
comfort and  
energy efficiency  
solutions that  
really work!**



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## Who is NCI?

**National Comfort Institute, Inc. (NCI)** is the world leader in HVAC System Performance and Air Balancing training. We created the industry's best practices, processes, and forms and have been teaching them for decades.

What makes NCI's approach different? We show you how to thoroughly test and diagnose the system using practical, easy-to-follow methods so you'll know exactly what to do to provide your customers with optimum comfort and energy efficiency.

NCI coined the phrase "High-Performance HVAC™", a unique approach to managing a contracting business through accountability and measurable results. During the past two decades, NCI has trained and certified more than 30,000 HVAC industry professionals. For more information about NCI, please call 800-633-7058 or visit [www.nationalcomfortinstitute.com](http://www.nationalcomfortinstitute.com).

### **Additional Educational Opportunities from NCI:**

- Residential HVAC System Performance & Air Balancing • Introduction to Hydronic Testing, Adjusting, & Balancing
- Large Commercial Balancing (National Balancing Council) • Airflow Testing & Diagnostics Implementation
- Combustion Performance and CO Safety • Commercial HVAC System Performance • Commercial Air Balancing
- Duct System Optimization • NCI Online University



Scan the QR Code  
to Learn More  
and Register



Courses Qualify for:  
NATE, BPI & Most State CEUs