

ADVANCED HVAC EDUCATION & TRAINING



Leading the Industry in
High-Performance HVAC™

Where Refrigeration Meets Airflow

Refrigerant-Side Performance Class

What if everything you thought you knew about diagnosing and solving refrigeration-side performance problems may not be totally correct?

Before you hook up a refrigerant gauge to a condensing unit or heat pump, do you know for certain it's the right first step to solving the issue?

By tapping into the refrigerant-side and adjusting the charge before you establish the true causes of the problem, you may not solve it. In many cases, you might make things worse!

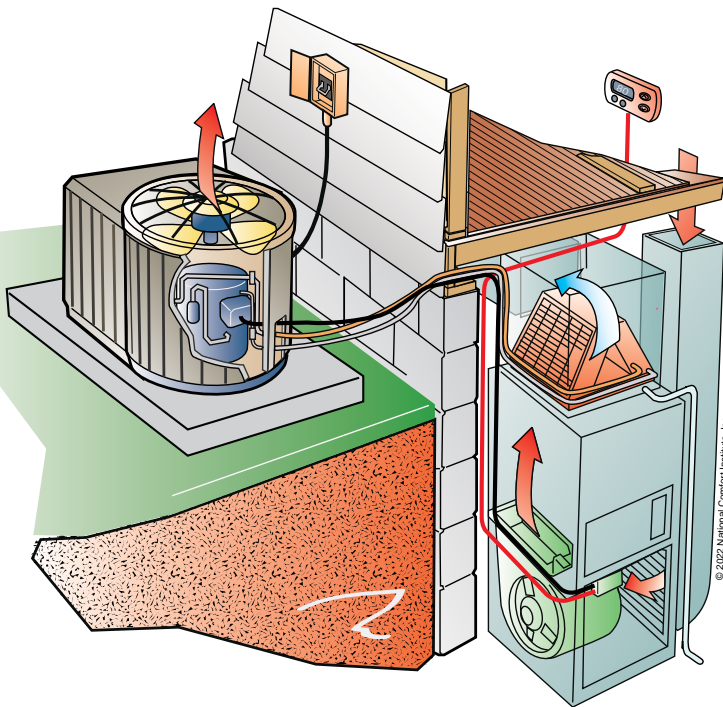
THERE IS A BETTER WAY!

This National Comfort Institute two-day advanced residential certification class provides you with real-world lessons and hands-on training. It's based on proven techniques on how to best approach refrigeration-side issues.

In this advanced testing, diagnostics, and troubleshooting class you'll discover why traditional approaches taught industry-wide are often not the best way to diagnose and fix performance and comfort issues.



Refrigerant-Side Performance Training and Certification



WHAT YOU'LL LEARN:

- How to apply a performance-based, systematic approach to refrigeration-side diagnostics
- Explore new HVAC refrigeration cycle performance-related solutions
- Identify surgical system repairs to improve performance
- How to use inspection, testing, and system history to determine if and when you need to tap into the refrigeration circuit
- Address underlying issues that impact the system before adjusting the charge.



Deliver high quality testing and produce professional reports and documentation to differentiate your company from your competition!

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

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



AGENDA:

Day 1:

- Introduction to refrigeration testing principles
- How refrigeration system components affect performance
- How static pressure and airflow measurements reveal hidden effects on the refrigeration cycle
- High- and low-side of the system and how they affect performance
- Metering devices, evaporators, service valves, filter dryers, and line set sizing
- Measure and interpret HVAC system static pressure and fan airflow
- Hands-on testing throughout.

Day 2:

- The benefits of purging with nitrogen while brazing
- Superheat, subcooling, and other refrigeration metrics

Day 2: (continued)

- Proper use of NCI's Expanded Refrigerant Diagnostic Table
- How to tell if non-condensables are in the system, and determine how they got there
- Measure and interpret refrigerant line temperatures
- Hands-on testing throughout.

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

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.

**LEARN TO
test, diagnose,
and troubleshoot
refrigeration-side
performance
issues!**



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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 40,000 HVAC industry professionals. For more information about NCI, please call 800-633-7058 or visit www.nationalcomfortinstitute.com.

Additional Educational Opportunities from NCI:

- Airflow Testing & Diagnostics Implementation • Combustion Performance and CO Safety
- Commercial Air Balancing • Commercial HVAC System Performance • Duct System Optimization
- NCI Online University • Residential HVAC System Performance & Air Balancing



Scan the QR Code
to Learn More
and Register