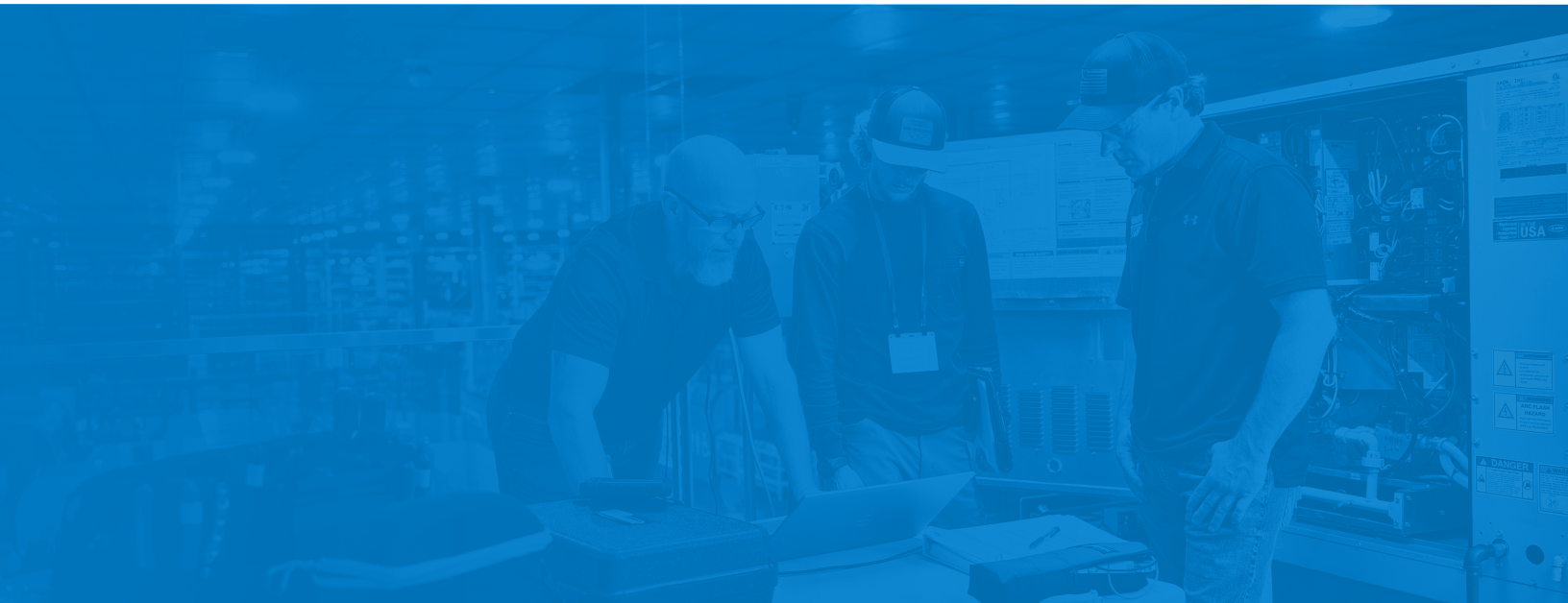




Technical Academy General Information



Comprehensive Guide
V-260616





Technical Academy

Billing:

- Billing is handled through the sponsoring AAON Sales Rep.
- The cost of each class is \$2,800 per seat.

Sponsorship:

- Every student must be sponsored by an AAON Sales Representative.

Enrollment:

- Contact your local AAON Representative. If you are unsure who that is, you can click on the "Find My Rep" at the top of our main web page.

Schedule:

- All classes run from 8:00 AM to 4:30 PM each day except for the last day which ends at 12:30 PM.
- Students should arrive at the training facility no later than 15 minutes prior to class. We start promptly at 8:00 AM each day.

Hotel Accommodations:

- Individual hotel rooms for each enrolled student will be provided at no additional cost. 1 night per day of training. We book the hotel rooms at a discounted rate.
- If the person attending does not need a hotel room, a discount will be applied.
- Transportation to and from the hotel will be provided each day. On the last day, the shuttle will take anyone to the Airport from the training facility at 12:30 PM.

Cancellation Policy:

- Cancellations **must be made 3 weeks prior** to the start of the class. Any cancellations less than this time frame will be billed 100% of the full cost of the class.

This cancellation policy is in place to prevent last-minute changes and provide seats for everyone who needs to attend. However, we try to be as flexible as possible. Our goal is to keep every class as full as possible to accommodate the high demand we have.

If there are any problems with a student not being able to attend, please send us an email. We will do our best to accommodate your individual situation. The sooner you contact us, the better options we have.

Class Descriptions

Introduction to Controls & Commissioning: 5 Days (Tulsa, OK):

This class is designed to teach the technician basic knowledge to start up and test an AAON Package unit.

Target Units:

- RQ, RN A - E & RZ Units
- Focus on most common features we utilize in the RQ/RN/RZ lines of equipment
- Focus on basic applications of CAV, VAV, SZVAV, MUA, DOAS

Prerequisites:

- Must have basic HVAC knowledge of mechanical and electrical circuits
- Must have basic skills working with Meters, Gauges, Tools
- Basic computer skills recommended

Skills Learned:

- Using Prism II software to interface and test an AAON unit
- Verifying configuration in the Controls (VCCX, Modules)
- Setting up Modulating Gas Valves
- Verifying and adjusting VFD settings for Supply/Exhaust Fan applications
- Verifying unit operation using control force modes
- Setting effective set points for basic applications, see above

Assessments:

- Effective commissioning of units by confirming proper configuration and setpoints for specific basic applications in lab.
- Complete and pass a written assessment at a score of 75% or greater to receive their certificate of completion.

Split System Startup: 5 Days (Tulsa, OK):

This class is designed to teach the technician basic knowledge to start up and test an AAON Split System Unit.

Target Units:

- CB/CF Condensing Units
- M2/H3/V3 AHU's
- Non-VFD Driven compressors (On/Off, Digital, 2-Step)

Prerequisites:

- Must have basic HVAC knowledge
- Must have basic skills working with Meters, Gauges, Tools
- Basic computer skills recommended

Skills Learned:

- Verifying Line-Set installation and sizing
- Adding additional charge for Line-Set
- Using Prism II software to interface and test an AAON unit
- Verifying configuration in the Controls (VCCX, Modules)
- Verifying unit operation using control force modes
- Basic Electro-Mechanical troubleshooting
- Refrigeration system troubleshooting

Class Descriptions

Controls 1: 5 Day (Kansas City, MO):

This class is designed to teach the technicians knowledge on the AAON VCCX Control System.

(Note: Includes more in-depth details than the Introduction to Controls & Commissioning/VCCX-454 Startup classes.)

Target Controllers:

- VCCX-454 controller and its modules

Prerequisites:

- Introduction to Controls & Commissioning/or previous VCCX 454 Startup
- Must have basic HVAC knowledge
- Basic Computer skills recommended

Skills Learned:

- Basic and Intermediate Prism II Operation
- Configuring VCCX Controller for various applications (Focus on RQ/RN Units)
- Working with ModGas, MHGRV, and Preheat Modules
- Working with RSMx Modules
- More in-depth emphasis on VCCX Sequences of Operation
- Interfacing VCCX with other AAON Controllers
- Supply air tempering (VAV with daytime heat)
- Space with high percentage of outside air (MUA with space sensor added or space CAV with high OA content)
- Single zone VAV with high OA content

Effectively Setting Up For:

- | | |
|-------------------------------------|---------------------------------|
| • Unit scheduling | • Heatpump defrost strategies |
| • Building pressure control | • Dehumidification strategies |
| • Supply air temperature reset | • Energy recovery wheel defrost |
| • Return plenum control | • Pre-heat set points |
| • Return fan tracking of supply fan | • Additional topics covered |
| • Return air bypass | • Controller alarms |
| • Air flow station set up | • VFD compressors alarms |

Assessments:

- Effective commissioning of units by confirming proper configuration and setpoints for specific basic applications in lab.
- Complete and pass a written assessment at a score of 75% or greater to receive their certificate of completion.

Class Descriptions

Controls 2: 5 Day (Kansas City, MO):

This class is a continuation of the Controls 1 Class.

Target Controllers:

- VCCX Controller for C box and larger
- ModGas-XWR Modules
- RSMx Modules for C box and larger
 - Includes VFD Compressor modules

Prerequisites:

- Must have completed Controls 1 with at least a 75% or better on the assessment

Skills Learned:

- Configuring VCCX for features found on C box and larger units
 - RSMV, RSMV-HP, RSMZ, ETC.
 - ModGas-XWR for Large Units
 - VCCX Hands-On Troubleshooting
 - Simulations of scenarios using "Smart" training panels
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VAV & Systems Class: 5 Day (Kansas City, MO):

This class is for anyone who wants detailed knowledge on how the AAON VAV Control System works with VCCX-2. It will also cover System Integration with the AAON line of controls.

(Note: Pioneer Gold and AAON RTU Touch controller not covered)

Class Targets:

- VCCX-2
- MiniLink PD
- VAV/Zone Controllers
- GPC-XP
- BACnet for VCCX-2 and VAV/Zone Controllers

Prerequisites:

- Must have reasonable computer skills
- AAON Academy Controls 1 class is required

Skills Learned:

- Overview of components used in an AAON VAV system
- Overview of VAV and VVT systems
- System Wiring
- System Programming
- Communications Basics and Troubleshooting
- BACnet Interface
- GPC-XP programming

Class Descriptions

Xtend (Upgrade) Class: 5 Day (Kansas City, MO):

This class is designed to teach the technicians knowledge on the AAON Xtend (Upgrade) Program.

Target Controllers:

- AAON Legacy Controllers to VCCX2 upgrade
- ModGas-X
- MHGRV-X (Hot Gas Reheat) Module
- RSMD (Refrigerant System Module for Digital, On/Off, 2-Step Compressors)

Prerequisites:

- Must have basic HVAC knowledge
- Must have basic wiring skills
- Must have experience with AAON Equipment
- Basic Computer skills recommended

Skills Learned:

- Overview of existing components and new replacement components
- Recovering existing configurations and setpoints
- Properly labeling wires for termination on replacement boards
- Installing new boards
- Wire Management techniques
- Basic and Intermediate Prism II Operation
- Configuring VCCX Controller for various applications
- Working with ModGas, MHGRV, and Preheat Modules
- Working with RSMD Module
- Basic VCCX Sequence of Operation
- Interfacing VCCX with other AAON Controllers
- Updating software of the current controllers

About the Instructors

Stan Horton

Technical Academy Manager



Stan has been with AAON since 1993. He began his career as a welder on the assembly lines and in 2000, he moved into a management role for the assembly lines, testing, and paint booth areas. Stan spent the next 18 years supervising many different aspects of the AAON production dept. and has vast experience in the assembly process for all AAON products. He also helped to develop the water piping assembly areas.

In 2018, Stan used his experience to assist in developing AAON's onboarding program, training all of the newly hired employees so that they could more easily adapt to AAON's production environment. This is where he found his passion for teaching and eventually was able to join the Technical Academy to assist in training field techs as well as AAON's internal team members.

He earned a bachelor's degree in business management and took over as the manager of the Technical Academy in January of 2025.

Paul Margwarth

Technical Academy Lead Instructor



Paul has been in the industry since 1994, after earning his Associates in Applied Science in Air Conditioning and Refrigeration Technology at Oklahoma State University, Institute of Technology. He began his career as a Service Technician in the Dallas/Fort Worth area, primarily working on commercial package equipment both constant and variable air volume, as well as chilled water and hot water systems.

In 1997, he returned to Oklahoma and worked for a residential and commercial contractor in Tulsa, OK. During his tenure there, he was promoted to the company's technical trainer and coordinator. He also began to teach night classes at the Tulsa Career Center in conjunction with his role as a Service Technician/Technical Trainer.

In 2004, he returned to his alma mater accepting a role as an instructor in the Air Conditioning and Refrigeration Department. He completed a Bachelor of Science in Career and Technical Education from Oklahoma State University, and has been training technicians and future technicians for over 20 years.

About the Instructors

Bryan Chadwell

Technical Academy Instructor

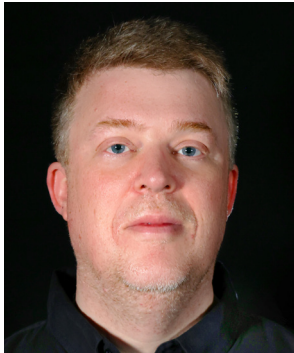


Bryan first started his HVAC career in 1992 getting an HVAC certificate while attending Climate Control Institute in Wichita Kansas. He then worked in the field doing residential and light commercial applications. He also attended Kansas State University, Agriculture Education, for 2 years after High School.

In 2013, he started attending Metropolitan Community College Kansas City. He graduated in 2015 with an Associates in Applied Science, Instrumentation and Controls. In 2015, he started working at Watt Master Controls in the Controls Support Department. After AAON purchased Watt Master in 2018, Bryan began helping technicians with controls, mechanical and applications questions on the phone. He also, traveled to job sites to help with controller updates and complete controller replacements.

Andrew Hodges

Technical Academy Instructor



Andrew started in the HVAC controls industry in 1997 after earning his Associates in Applied Science in Electronics Technology. He started his career evaluating and repairing controls coming back from the field.

In 2000, he moved to the Engineering department designing circuit boards, much of which was purchased by AAON. During this time, he also provided support to the field techs over the phone as well as job site visits. In 2012, Andrew started to develop Sequence of Operations as well as write the software that goes into the controls. Now Andrew is fully dedicated to providing training for field techs as well as internal personnel since 2018. He also leads the AAON Academy team and continues to use his expertise in electronics and software to improve the learning experience at AAON.

About the Instructors

Michael Martin

Technical Academy Instructor



Michael Martin retired from the United States Air Force after 24 years of honorable service, where he also served as an instructor. Following his military career, he earned his HVAC certification from Oklahoma Technical College. In October 2017, he joined AAON as an end-of-line tester and was soon promoted to test lead. His drive for technical excellence led him to roles as a Lab Technician and later in the controls department. In May 2025, Michael brought his wealth of experience to the AAON Technical Academy, where he now serves as an instructor, helping shape the next generation of HVAC professionals.

Brian Wathen

Technical Academy Instructor



Brian is a third-generation HVAC professional with over 40 years of experience in the commercial and residential HVAC industry. Growing up immersed in the trade, his foundational knowledge quickly evolved as he became certified in both HVAC and Electronics Technology and later went on to earn an associate degree in Engineering Technology and a bachelor's degree in Organizational Leadership. Throughout his career, Brian has held key roles in residential and light commercial product engineering, national technical and field service, and product management. His passion for education and innovation continues as he now focuses on delivering impactful training to support AAON and the advanced, energy-efficient solutions they offer.