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ABB FACTORY AUTHORIZED TRAINER MANUAL

# **ABB Factory Authorized Trainer**

## Instructor Manual

Contact ABB Inc, Low Voltage Drives

ABB Inc. – Low Voltage Drives

16250 W. Glendale Drive

New Berlin, WI 53151

Tel: (800) 752-0696

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Technical Support

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LV & MV U.S. Drives & PAC Automation Solutions Training

Tel: (262) 785-3260

Email: [drivetraining@us.abb.com](mailto:drivetraining@us.abb.com)

Web: <https://new.abb.com/service/abb-university/united-states/drives/us-training>

# Welcome ABB Factory Authorized Trainers

Remember to CELEBRATE your new role with ABB! This guide should ensure that you get off to a great start!

## Introduction

This Instructor Manual is intended to help guide you through the logistics of conducting a Startup Class (utilized in both the Authorized Startup and Installation and Commissioning programs) and the Service Class (utilized in Usage and Maintenance programs) at a field location of your choice. Depending on the experience level of the students, topics listed on the agenda can be covered in more or less depth.

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# Programs Offered

Below is a list of training available, the respective intended audiences and trainers that can perform that training. Note: Some classes are only offered at the “ABB New Berlin only” facility, due to equipment constraints and availability. Contact ABB Training for further information.

Programs	Audience	Trainer
ACX550		
ACH550 Usage & Maintenance	End User/Non-DASC Partner	ABB Field Trainer, ABB Employees
ACQ550 Usage & Maintenance	End User/Non-DASC Partner	ABB Field Trainer, ABB Employees
ACS550 Usage & Maintenance	End User/Non-DASC Partner	ABB Field Trainer, ABB Employees
ACX580		
ACH580 Authorized Startup	Channel Partner	ABB Field Trainer, ABB Employees
ACH580 Installation & Commissioning	End User	ABB Field Trainer, ABB Employees
ACH580 Usage & Maintenance	End User/Non-DASC Partner	ABB Field Trainer, ABB Employees
ACQ580 Authorized Startup	Channel Partner	ABB Field Trainer, ABB Employees
ACQ580 Installation & Commissioning	End User	ABB Field Trainer, ABB Employees
ACQ580 Usage & Maintenance	End User/Non-DASC Partner	ABB Field Trainer, ABB Employees
ACS580 Authorized Startup	Channel Partner	ABB Field Trainer, ABB Employees
ACS580 Installation & Commissioning	End User	ABB Field Trainer, ABB Employees
ACS580 Usage & Maintenance	End User/Non-DASC Partner	ABB Field Trainer, ABB Employees
ACS800		
ACS800 Usage & Maintenance	End User/Non-DASC Partner	ABB Field Trainer, ABB Employees
ACS800 ULH, Regen & up to 1000HP		
Adv. Installation & Commissioning (ULH, Regen & up to 1000HP)	End User	ABB Employees, ABB New Berlin only
OEM Adv. Installation & Commissioning (ULH, Regen & up to 1000HP)	OEM	ABB Employees, ABB New Berlin only
ACS880		
ACS880 Authorized Startup	Channel Partner	ABB Field Trainer, ABB Employees
ACS880 Installation & Commissioning	End User	ABB Field Trainer, ABB Employees
ACS880 Usage & Maintenance	End User/Non-DASC Partner	ABB Field Trainer, ABB Employees
ACS880 Advanced Authorized Startup (ULH, Regen & up to 1100HP)	Channel Partner	ABB Employees, ABB New Berlin only
ACS880 Advanced Installation & Commissioning (ULH, Regen & up to 1100HP)	End User	ABB Employees, ABB New Berlin only
DCS800		
DCS800 Authorized Startup	Channel Partner	ABB Employees, ABB New Berlin only
DCS800 Installation & Commissioning	End User	ABB Employees, ABB New Berlin only
DCS800 Usage & Maintenance	End User/Non-DASC Partner	ABB Employees, ABB New Berlin only
DCS880		
DCS880 Authorized Startup	Channel Partner	ABB Employees, ABB New Berlin only
DCS880 Installation & Commissioning	End User	ABB Employees, ABB New Berlin only
DCS880 Usage & Maintenance	End User/Non-DASC Partner	ABB Employees, ABB New Berlin only

# Class Checklist



<b>ABB Field Class Checklist</b>		
<b>Pre-Class Tasks</b>	<b>When</b>	<b>Done</b>
<a href="#">1. Submit Request to Lead a Class</a>	6-8 weeks out	
<b>2.</b> Receive Confirmation of Scheduling	6-8 weeks out	
<b>3.</b> Check class details for accuracy	6-8 weeks out	
<b>4.</b> Invite Students/guide students to enroll	3-6 weeks out	
<b>5.</b> Check Class Enrollments	2 weeks out	
<b>6.</b> Receive Student Manuals	1-7 Days out	
<b>7.</b> Receive and Inspect Equipment Shipment	2-5 Days out	
<b>8.</b> Set up workstations, put out student manuals	1-2 Days out	
<b>9.</b> Print/Set out name tags, tent cards, etc.	1-2 Days out	
<b>10.</b> Back up instructor documents on thumb drive	1-2 Days out	
<b>11. Welcome students - Verify PPE</b>	Day of	
<b>Post-Class Tasks</b>		
<b>1.</b> Have students fill out evaluation (QR code, link)	End of class	
<b>2.</b> Mark student attendance in the LMS	End of class	
<b>3.</b> Notify ABB Training Coordinators class is complete	1-2 Days Post	
<b>4.</b> Pack up equipment	1-2 Days Post	
<b>5.</b> Notify ABB of any damaged/broken equipment	1-2 Days Post	
<b>6.</b> Ship equipment to location ABB specifies	1-2 Days Post	
<b>7.</b> Clean classroom	1-2 Days Post	
<b>8.</b> Prepare for next class		

# Purchase a Subscription to Train

## Purchase a subscription using a P.O.

1. Submit a purchase order to [drivetraining@us.abb.com](mailto:drivetraining@us.abb.com)
  - a. Include the length of subscription desired (3,6, or 12 months)
  - b. and the type of training that will be performed (startup or service)

<u>3 Month Subscription</u>	<u>6 Month Subscription</u>	<u>12 Month Subscription</u>
Startup Subscription - \$5,700	Startup Subscription - \$10,000	Startup Subscription - \$18,000
Service Subscription - \$19,200	Service Subscription - \$37,000	Service Subscription - \$72,000

2. The Training Coordinators will
  - a. confirm when the purchase order has been processed.
  - b. You will be enrolled in the applicable subscription program.
  - c. Once your order has been processed, you may submit your request(s) to lead a class.
  - d. The Training Coordinator will also provide the codes for your students to enroll in their training programs and bypass ABB's pricing on the program.
3. When your subscription period is up, your course in the subscription program will expire. You can either submit another purchase order, or purchase with a credit card directly through the Learning Management System.

## Purchase a Subscription Using a Credit Card

1. Visit the [Train the Trainer webpage](#)
2. Click the link under the subscription length desired

<u>3 Month Subscription</u>	<u>6 Month Subscription</u>	<u>12 Month Subscription</u>
Startup Subscription - \$5,700	Startup Subscription - \$10,000	Startup Subscription - \$18,000
Service Subscription - \$19,200	Service Subscription - \$37,000	Service Subscription - \$72,000
Click <a href="#">Here</a> to pay with a CC and receive a 10% discount.	Click <a href="#">Here</a> to pay with a CC and receive a 10% discount.	Click <a href="#">Here</a> to pay with a CC and receive a 10% discount.
(Subscription programs will only be visible to Authorized Trainers)	(Subscription programs will only be visible to Authorized Trainers)	(Subscription programs will only be visible to Authorized Trainers)

3. Select "Apply" to the right of the type of training you would like to deliver.

Program	Type	Status	Action
TTT 3 Month Service Subscription	Train the trainer		Apply
TTT 3 Month Startup Subscription	Train the trainer		Apply

4. Apply for the course within the program. This will take you to the shopping cart. Select "Check Out with PayPal" and complete the payment process.
5. After payment has been received (within 1-2 business days) the Training Coordinators will send a coupon code for your students to enroll in training through ABB's learning management system and bypass ABB's pricing.

# Request to Lead a Class

## Submit Request to Lead a Class Form

1. Go to **U.S. Drives & PAC Automations Solutions Training** site (<https://new.abb.com/service/abb-university/united-states/drives/us-training>)
2. Click on "Training Request Form" Link under "Additional Training Resources" area of the page.

**U.S. Drives & PAC Automation Solutions Training**

Training will build your teams competence, enhance safety, develop your staff's troubleshooting skills, and maximize the availability of your equipment.

Training plans are offered as a blended learning solution, video-led on-line instruction and classroom instructor-led hands-on lab exercises.

Enrollment for classes is done through enrolling in the program. It is **very important** to enroll in the program as soon as possible, and **complete all the pre-requisite online modules before you can enroll into the Instructor Led classes**. Material covered in the classes require the knowledge contained in the eLearning modules.

**Tech Tuesday**

Webinar Series  
**Tech Tuesdays**  
[Learn More Here](#)

**How to get started**

- Create your training account
- Enroll in training program
- Complete online training

**Training Account**

- [Login to training system](#)  
NOTE: User name = email
- [System Introduction](#)
- [Videos](#)
  - Session 1: Student
  - Session 2: Supervisor
  - Session 3: Instructor (Channel Partners, Employees only)
  - Session 4: FAQ

**Additional Training Resources**

- [Training Account Login](#)
- [Knowledge Base, Tech. Notes & White Papers](#)
- [Live Remote Training](#)
- [Lunch & Learns](#)
- [PDH Accreditations](#)
- [Swipe Guides](#)
- [Solutions Podcasts](#)
- [Webinars](#)
- [YouTube Channel](#)
- [Training Request Form](#)

3. Fill in Requestor's Name (person completing the form) and Email, then choose 'Lead a Class' for the "Deliverable."
4. Click 'Next' button.



\* Required

### General Information

The available deliverables included in the form are listed below along with the audience who can submit each type of request. Please do not submit a request if your audience is not listed for that deliverable.

- Lead a Class: Field Instructors
- Training Quote: All (ABB Employees, Channel Partners, End Users)
- Training Development: ABB Employees
- Webinar: ABB Employees
- Become an ABB Authorized Trainer: Channel Partners

1. Full Name \*

Enter your answer

2. Email \*

Enter your answer

3. Deliverable \*

☒ Lead a Class

☐ Training Quote

☐ Training Development

☐ Webinar

☐ Become an ABB Authorized Trainer (Channel Partners ONLY)

Next

Never give out your password. [Report Abuse](#)

5. Enter the Name of the (Authorized) Instructor who will be conducting the class, then click 'Next' button.

### Drives Training Requests

\* Required

### Instructor

4. Authorized Instructor \*

Enter the name of the authorized instructor to perform requested training event.

Enter your answer

Back Next

6. Continue to fill out all requested fields. Note that required fields are marked with an '\*'.

The screenshot shows a web form titled "Drives Training Requests" with a red header bar. A red box highlights the "\* Required" label, with a red arrow pointing to it. Below this, the "Class Requests" section contains instructions and a list of requirements. The form includes several input fields, each with a red arrow pointing to its asterisked label:

- 5. Program Name \***: A dropdown menu with the placeholder text "Select your answer".
- 6. Target Number of Students \***: A text input field with the placeholder text "Enter your answer".
- 7. Desired Class Start Date \***: A date input field with the placeholder text "Please input date (M/d/yyyy)" and a calendar icon.
- 8. Company Name \***: A text input field with the placeholder text "Enter your answer".

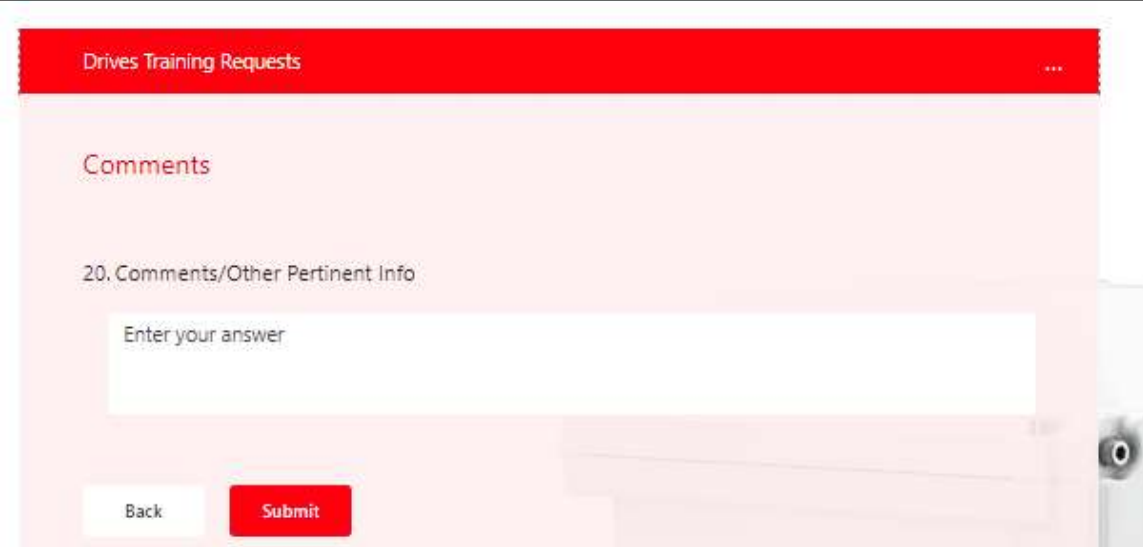
Additional text on the form includes:

- Instructions: "Fill out the below form in its entirety to request a training class. Please note the following:"
- Requirements list:
  - All training requests have a 6-8 week response time.
  - Should training require to be quoted, quoted training has an 8-12 week scheduling time frame from the time of payment.
  - Please consult the training calendars to ensure training you are inquiring for is not already scheduled as a standard training offering that can be attended at an earlier date.
  - No scheduling will occur until payment has processed. (In the case of training quotes.)
  - Travel and living expense arrangements should not be made until proposed date is confirmed in writing by the Training Department.
  - Equipment and equipment shipping containers must be stored indoors, in a dry location. The instructor and/or receiving location company will be charged for damage due to improper handling or storage. Training equipment will be provided up to 2 weeks before the scheduled start date.
- Disclaimer: "\*Submission of this form is not a guarantee that training class will be held. This form is the official first step in the request process. For questions, contact the Training Coordinators at: [drivetraining@us.abb.com](mailto:drivetraining@us.abb.com) or 262-785-3260."
- Suggested Classroom Setup for Training: <https://www.abbnow.com/DefaultFilePile/Training/Training-Overview/Classroomsetupfortraining.pdf>

7. Other fields:

- Company Contact Name \*
- Company Contact Phone \*
- Company Contact Email \*
- Company Street Address \*
- Company City \*
- Company State \*
- Company ZIP \*
- Distributor Company
- Distributor City
- Distributor State
- Shipping Location \*
  - Locations in possession of equipment are responsible and liable to ensure the equipment is not damaged, lost or stolen. In the event of damage or loss replacement cost will be the responsibility of the entity, individual(s) in possession of said equipment. Equipment being shipped may come from ABB Training in New Berlin, or from another training location. The previous instructor is responsible for pre-paid shipments to the next training location. (Note: it is the current instructor's responsibility to ship the equipment to the next training site – or back to New Berlin, per Training Coordinator instructions).

**Be sure to add any important information/comments, not already included, that will be useful when reviewing the form.**



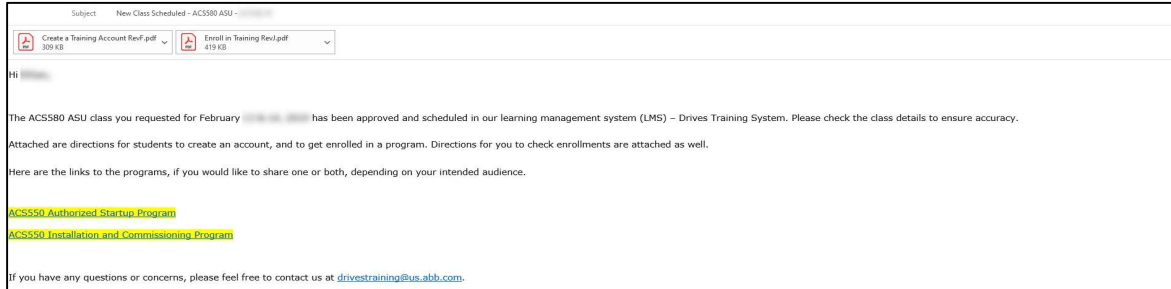
**Special Note: "Exception" Request** – Exceptions are used for Start-Up classes when an End User or Contractor is intending to authorize Start-Ups for extended warranty purposes. (e.g. an individual or company that does not have a channel partner contracted relationship with ABB Inc. for example a: System Integrator, OEM, independent contractor, End User) This is not a generally accepted condition. ABB Inc. for the most part, does not allow what we would deem a "self-authorization." This would be the equivalent of asking General Motors if you could warranty your own car. On occasion, for extenuating circumstances, an exception to this rule can be made with the approval of the Industrial Regional Vice President (IRVP) or HVAC Regional Sales Manager (HVAC RSM). As a Trainer completing this form, we assume you are in approval of said practice and Training Coordinators are in receipt of said approval.

**You will receive confirmation within 2 business days that your class has been approved or rejected.**

1. Rejected requests will receive a response and communication of the reason and solutions to be agreed upon that will allow the request to be approved upon agreement.
2. Approved requests will be entered into the training system and students can register for the class.

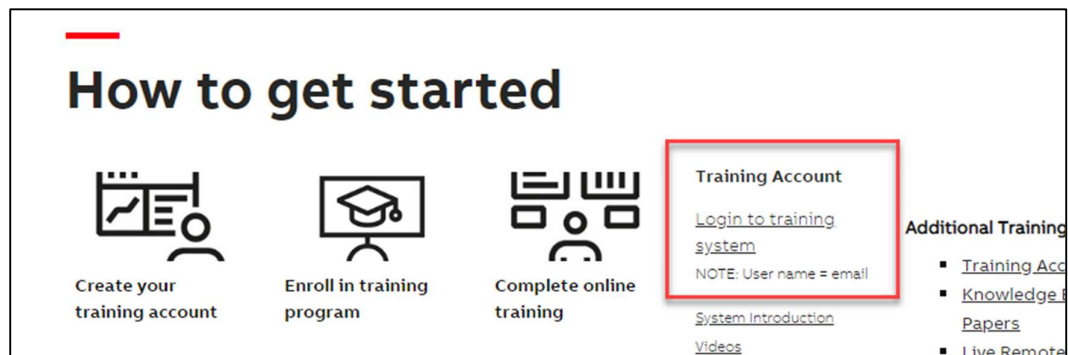
## Confirmation of Class Request

1. You will receive an automatic email indicating that the class is scheduled or rejected (along with reasons, if rejected). Additional confirmation and details will be sent by a Training Coordinator with information that you can send to your students for enrollment purposes. Below is an example of the confirmation message.

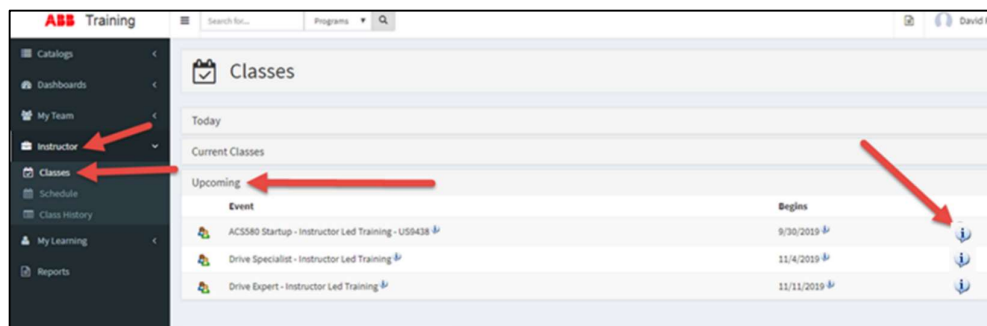


## Check for Accuracy

1. After receiving confirmation of your class being entered into the training system, you should check the class to ensure the entered information is accurate.
2. Login to the Training System through the [Web Page](#)



3. Click on Instructor → Classes → Upcoming, then click on "blue information icon" to the right of the desired class.



4. View all the details.

The screenshot displays the ABB Training web application. On the left is a dark sidebar with navigation links: Catalogs, Dashboards, My Team, Instructor, My Learning, and Reports. The main content area has a top header with 'ABB Training', a search bar, and a 'Programs' dropdown. Below this is a title bar for the selected class: 'ACS580 Startup - Instructor Led Training - US9438 (9/30/2019)'. A 'General' tab is active, showing a yellow box with the following details: Course: ACS580 Startup - Instructor Led Training - US9438, Seats Available: 3, Enrolled: 7, Status: Scheduled, and Location: New Berlin, WI. Below the details are tabs for 'Schedule', 'Enrollments', 'Units', 'Gradebook', and 'Attendance'. The 'Schedule' tab is selected, showing a 'Class Schedule' table with two rows: Monday 9/30/2019 (8:00 AM-5:00 PM) and Tuesday 10/1/2019 (8:00 AM-5:00 PM), both at LaCrosse Training Room 2 - 16250 West Glendale Drive, New Berlin, WI, with instructor Polka, Dave.

Class Schedule	
Mon 9/30/2019 8:00 AM-5:00 PM	LaCrosse Training Room 2 - 16250 West Glendale Drive, New Berlin Polka, Dave
Tue 10/1/2019 8:00 AM-5:00 PM	LaCrosse Training Room 2 - 16250 West Glendale Drive, New Berlin Polka, Dave

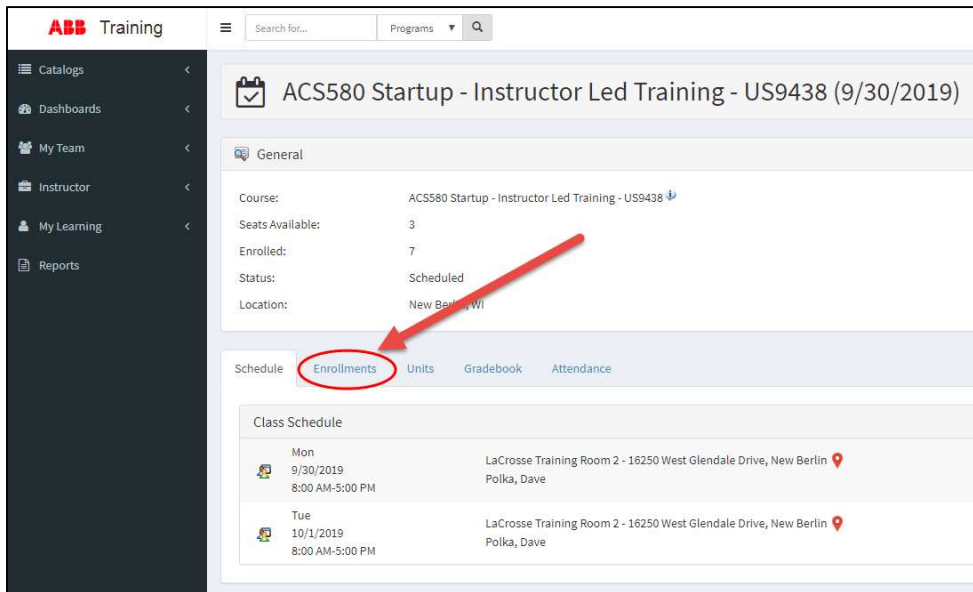
5. The Following information is available for confirmation

1. "Seats available"
2. "Status" of the class – This is important and is an indicator of many class statuses.
  - i. "Scheduled" means it is an upcoming class
  - ii. "Closed" – means enrollment is prohibited at this time. Class enrollment availability can be stopped at any time. This prohibits additional enrollments exceeding equipment and material allocations.
  - iii. "Delivered" means class has been delivered. No new enrollments can be processed, except by the Training Coordinators.
  - iv. "Completed" – student statuses for the class have been manually marked "complete" and confirmation email has been sent to the instructor and students.
  - v. "Cancelled" – the class has been cancelled.
3. "Location" general location of the event
4. "Dates" and associated "times" the class is being held.
5. "Location" specific location ie. address of the event. Balloon allows for location map.
6. "Dates" and "times" for the Instructor. This may seem redundant; however, many complex classes can have multiple instructors and times they are scheduled to participate in the scheduled class.

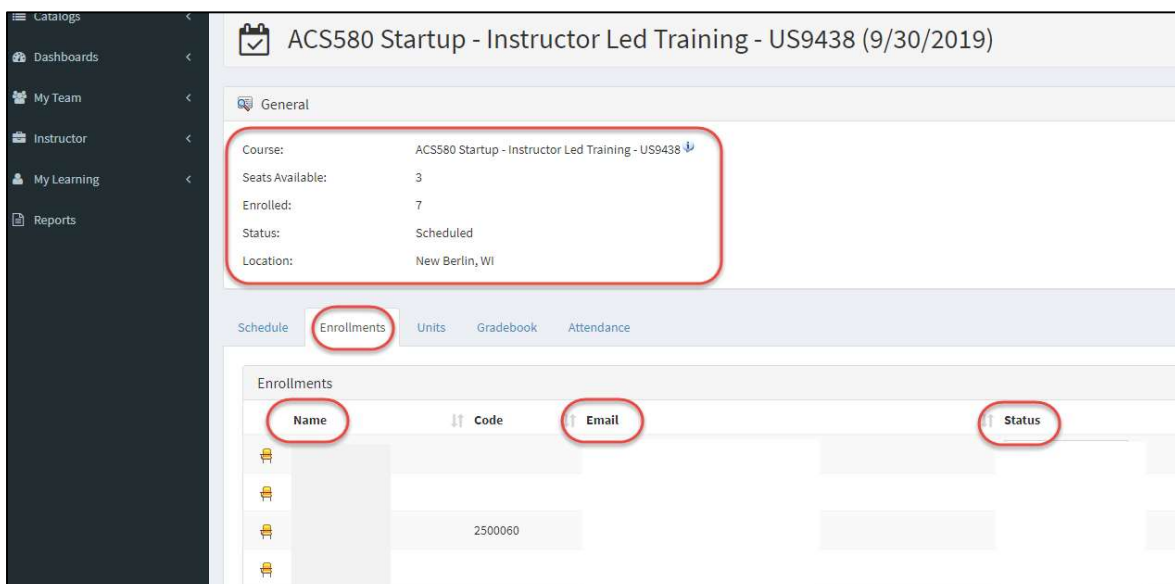
## Material Order

1. There is no action for you to take regarding ordering materials. Materials will be ordered on your behalf based on the quantity of students indicated on the "Request to Lead a Class" submission form.
2. Materials will arrive a minimum of 1-2 days prior to the class.
3. Delivery of these materials will be to the location indicated on the "Request to Lead a Class" submission form.

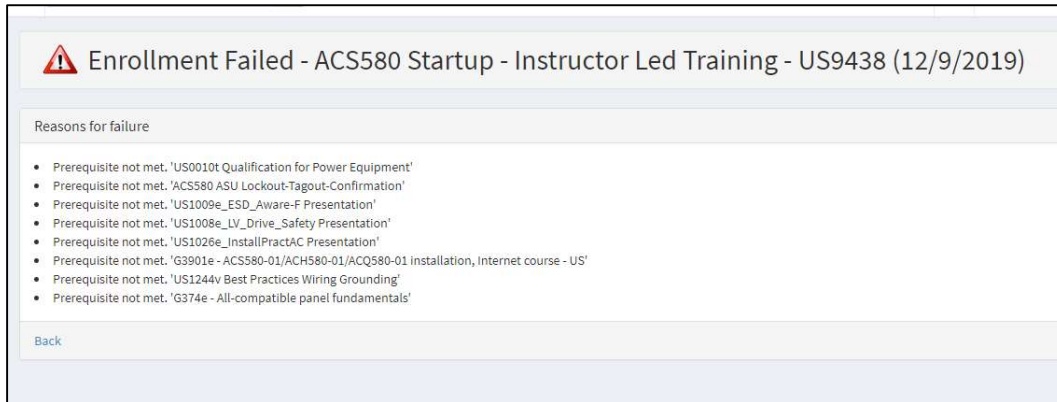
## Checking enrollments – click on the “enrollments” tab.



1. The following screen will appear. From this screen, we see two students have enrolled. The following information is provided.
  1. There are currently (3) seats available in this class. (7) students are enrolled, and (3) seats are still available.
  2. We know the status of the class (Scheduled)
  3. The class location (New Berlin, WI)
  4. The names of the enrolled students (*names, email addresses and statuses*) have purposely been blocked out for this screenshot)
  5. The students' email addresses. Clicking on the email (link) will invoke your email program automatically addressing the email for your convenience.
  6. Lastly, the status of the student (i.e. confirmed).
  7. This also means the students have completed their prerequisite requirements (online courses). If they hadn't completed these requirements, they would have been prohibited from enrolling in the class. They would have received the communication in step 8 below indicating incomplete prerequisites.



8. Below is a message similar to what students will receive if they attempt to enroll in an Instructor-Led Training class if they have not completed their respective prerequisites.



## Submit corrections if necessary

1. Should you find error(s) in class information, please inform the Training Coordinators of the corrections needed via email to: [drivetraining@us.abb.com](mailto:drivetraining@us.abb.com)
2. The following information will be needed to effectively make the necessary corrections.
  - a. Trainer Name
  - b. Training Location
  - c. Training Date(s)
  - d. Class being trained
  - e. Detailed information of corrections needed

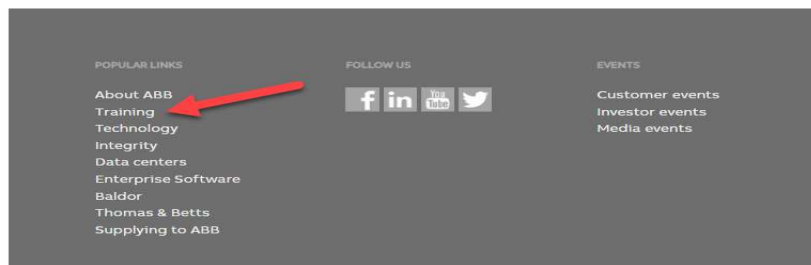
## Invite Students

1. Inform students of the upcoming class and their ability to register. Send Coupon Code provided to you by Training to allow students to bypass ABB's pricing.
2. Inform students that there are prerequisite training course(s) they will have to complete before they will be allowed to enroll in an ILT (instructor-led training).
3. As an instructor, you have the ability to check on enrollments for any class you are instructing.

## Creating a Training Account

**To enroll in a program, a student must have an established training account.**

1. Either click this [link](#) and skip to step 5 or follow the path below.
2. Go to [ABB.com/us](http://ABB.com/us). Go to the bottom of the page and click 'Training'









3. Click on Drives & PAC Automation Solutions Training link.




Training by product or system      Course offerings

Select from one of our product or system offerings to find specific training information including courses, programs, course schedules, pricing, and training centers.

 Industrial Automation <a href="#">Control Systems</a> <a href="#">Measurement Products and Analytics</a> <a href="#">Current Classes</a>	 Robotics <a href="#">Robotics</a>	 Electrification <a href="#">High Voltage</a> <a href="#">Low Voltage</a>	 Motion <a href="#">Drives &amp; PAC Automation Solutions Training</a>
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------

4. Click on "Login to Training System" link.

How to get started

 Create your training account	 Enroll in training program	 Complete online training	<b>Training Account</b> <a href="#">Login to training system</a> NOTE: User name = email <a href="#">System Introduction Videos</a> <ul style="list-style-type: none"><li>Session 1: Student</li><li>Session 2: Supervisor</li><li>Session 3: Instructor (Channel Partners, Employees only)</li><li>Session 4: FAQ</li></ul>
-------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

5. Select "Sign Up".

## Log in

E-mail address\*

Password\*

[Forgot your password?](#)

**LOGIN**

Need an account? [Sign up](#)

© Copyright 2022 ABB | [Provider Information/Impressum](#) | [Cookies and privacy policy](#)

6. Fill in your information in the account sign up fields

## Sign up

With one ABB account, you can access all our online services.

First name\*      Last name\*

E-mail address\*

Password\*

Repeat password\*



7. Select "Business User" in the Additional Information Section

**Additional information**

Are you a business or private user?

☒ Business ☐ Private

Company / school / institution\*

Phone number

Country or region\*

8. Complete the Form and Select "Sign Up".

- ☐ I have read and agree to [ABB privacy policy](#)\*
- ☐ I consent to receive offers and news on products, services and events from ABB in accordance with ABB's Privacy Policy

**SIGN UP**

9. \*\*Basic end user access is granted immediately. **Secured access to training for partners/DASC's/employees will be granted within 1 business day.** If immediate access is needed during normal business hours or if there are issues with your access, please contact [drivetraining@us.abb.com](mailto:drivetraining@us.abb.com) or call 262-785-3260.

## Enrolling in a Training Program

- Go to **Training Page**
- Click on "Technical Training" link (Training page illustrated below)

**How to get started**

Create your training account

Enroll in training program

Complete online training

**Training Account**

[Login to training system](#)  
NOTE: User name & email

[System introduction Videos](#)

- Session 1: Student
- Session 2: Supervisor
- Session 3: Instructor (Channel Partners, Employees only)
- Session 4: FAQ

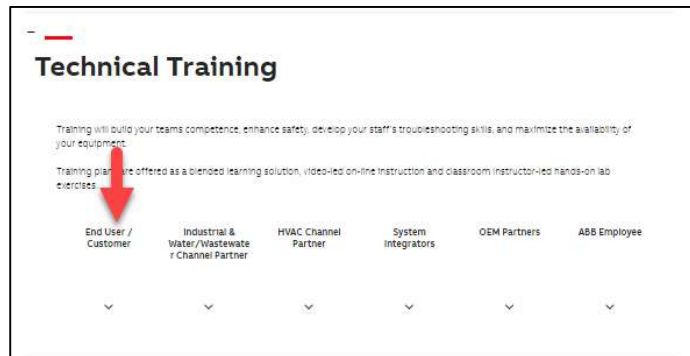
**Additional Training Resources**

- [Training Account Login](#)
- [Knowledge Base, Tech. Notes & White Papers](#)
- [Live Remote Training](#)
- [Lunch & Learn](#)
- [PDH accreditations](#)
- [Swipe Guides](#)
- [Solutions Podcasts](#)
- [Webinars](#)
- [YouTube Channel](#)
- [Training Request Form](#)

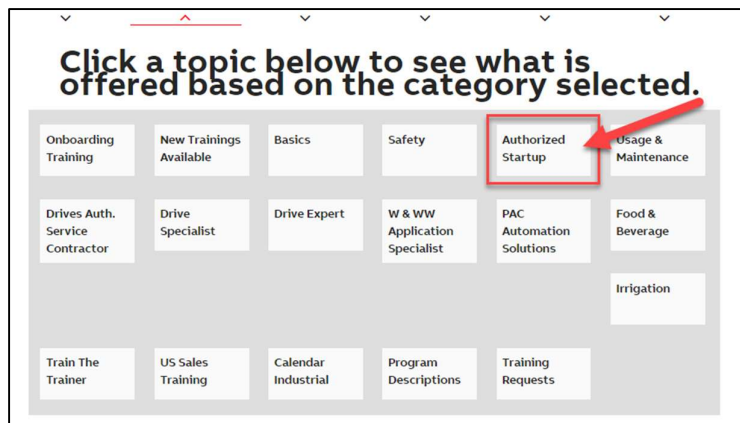
Should you need assistance, please contact our Training Coordinators at 262-785-3260 or via [email](#).

**Technical Training**

3. To access the appropriate training page, select the training audience you belong to.  
(Examples listed here)



4. Select the type of training that suits your needs. Example: "Authorized Startup"



5. On this page, click on the products / training type of choice.  
**Note: If a training account has not been created, the student will need to create an account to login.**

## Authorized Startup (ASU)

Authorized Startup Training provides the student with comprehensive instruction in the installation, wiring, and commissioning of LV Drives.

\* PDH Accreditation available.

PPR Required to attend classroom training

### Additional Training Resources

- [Training Account Login](#)
- [Knowledge Base, Tech. Notes & White Papers](#)
- [Live Remote Training](#)
- [Lunch & Learns](#)
- [Swine Guides](#)
- [Solutions Podcasts](#)
- [YouTube Channel](#)
- [PDH Accreditations](#)
- [Webinars](#)
- [Training Request Form](#)



6. Also Note: Additional program information can be obtained by clicking on the "+" Link to "Authorized Start Up Program Information."

– Authorized Start Up Program Information

PROGRAM	DURATION	COST	CALENDAR	REGISTER
<p><b>ACS580 Authorized Startup (ASU)*</b></p> <p>The ACS580 Authorized Startup training provides the student with comprehensive instruction in the installation, wiring, and commissioning of LV Drives. The curriculum combines on-line, instructor-led training, and hands-on lab exercises.</p> <p>The Installation &amp; Commissioning training program for the ACS580 drives focuses on commissioning for wall mount and enclosure installation of drives up to 350HP. The program includes commissioning practices for standard analog controlled installation and installations utilizing fieldbus communications.</p> <p><a href="#">ACS580 ASU Program Description</a></p>	<p>eLearning 6 hours Classroom 2 days</p>	\$0.00	<a href="#">LINK</a>	<a href="#">REGISTER</a>

## ACS580 Authorized Startup Training Program Description

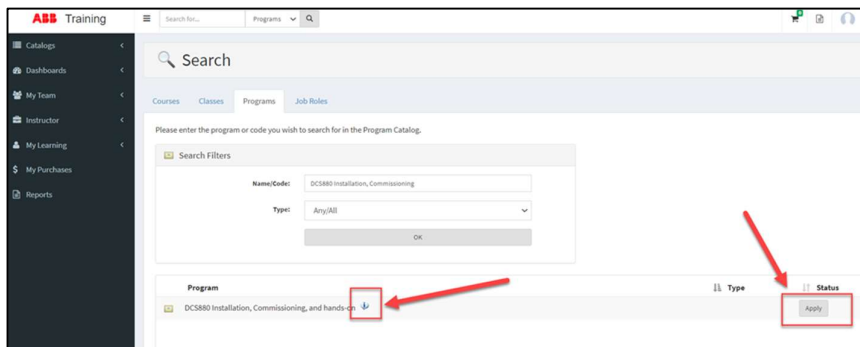
**Authorized Startup for the ACS580**

The Authorized Startup training provides the student with comprehensive instruction in the installation, wiring, and commissioning of LV Drives. The student will learn the

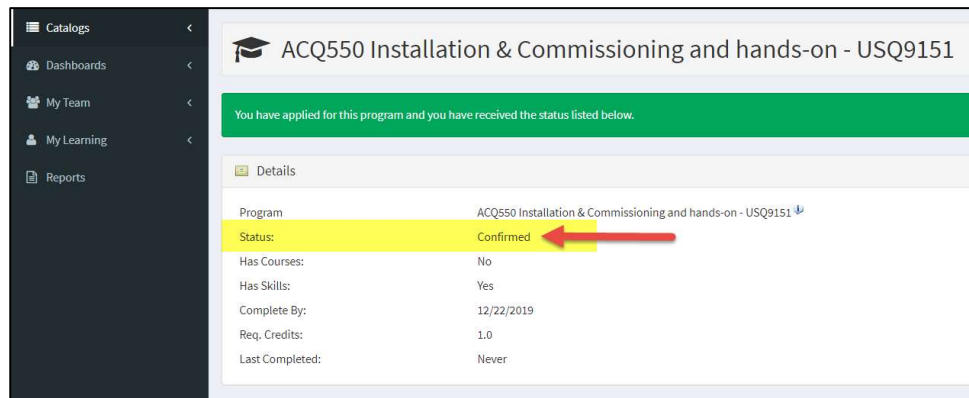
**Authorized Startup Program**

The Authorized Startup program provides channel partner's trained technicians with the knowledge and capability to Startup LV Drives. The Authorized technician can perform and authorize that the drive is installed and configured

7. Once you click on the program of choice, you will be directed to the Training System. You will be able to view required pre-requisites and course information. Note: This link sends the student directly to the training system. If they do not have an account, they can apply for one here.
8. Students will see the Program listed. To view the details of the program, including description, fee, and course requirements to complete the program, click the "information icon" to the right of the program name, as shown in the following figure. To enroll in the program, click the 'Apply' button on the right side of the screen.
9. Note: The following "screen shots" are for example purposes, showing various product classes.



10. A green box will appear stating you have applied. In addition, the "Status" will indicate 'Confirmed'.



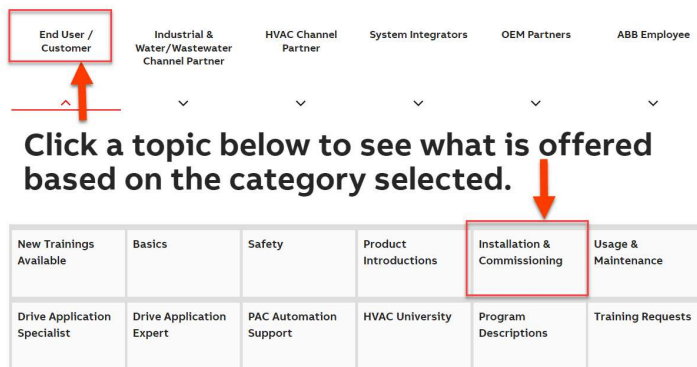
**ACQ550 Installation & Commissioning and hands-on - USQ9151**

You have applied for this program and you have received the status listed below.

**Details**

Program	ACQ550 Installation & Commissioning and hands-on - USQ9151
Status:	Confirmed
Has Courses:	No
Has Skills:	Yes
Complete By:	12/22/2019
Req. Credits:	1.0
Last Completed:	Never

11. If an "End-User clicks on the "End User / Customer" link on the website, they will see a multitude of training offerings. Clicking on "Installation & Commissioning," reveals the same information as "ASU" – however From an "end-user" perspective.



**End User / Customer**

Industrial & Water/Wastewater Channel Partner | HVAC Channel Partner | System Integrators | OEM Partners | ABB Employee

Click a topic below to see what is offered based on the category selected.

New Trainings Available	Basics	Safety	Product Introductions	<b>Installation &amp; Commissioning</b>	Usage & Maintenance
Drive Application Specialist	Drive Application Expert	PAC Automation Support	HVAC University	Program Descriptions	Training Requests

## Installation & Commissioning

The Installation & Commissioning training provides the student with comprehensive instruction in the installation, wiring, and commissioning of LV Drives. The curriculum combines on-line, instructor-led training, and hands-on lab exercises. The Installation & Commissioning training program for drives focuses on commissioning for wall mount and enclosure installation of drives up to 350HP. The program includes commissioning practices for standard analog controlled installation and installations utilizing fieldbus communications.

Duration: Varies per product

Delivery: eLearning & classroom

PPE Required to attend classroom training

### Additional Training Resources

- [Training Account Login](#)
- [Knowledge Base, Tech. Notes & White Papers](#)
- [Live Remote Training](#)
- [Lunch & Learns](#)
- [SwiToe Guides](#)
- [Solutions Podcasts](#)
- [YouTube Channel](#)
- [PDH Accreditations](#)
- [Webinars](#)
- [Training Request Form](#)

\* PDH Accreditation available.

HVAC	Industrial	Water & Wastewater
ACH550*	ACS550*	ACQ550*
ACH580*	ACS580*	ACQ580*
	ACS800*	
	ACS800 Advanced /ULH, Regan & up to 1000HP*	

12. When clicking on the "Usage & Maintenance" link, the student will obtain information on the "service-type" programs available.

End User / Customer   Industrial & Water/Wastewater Channel Partner   HVAC Channel Partner   System Integrators   OEM Partners   ABB Employee

Click a topic below to see what is offered based on the category selected.

New Trainings Available	Basics	Safety	Product Introductions	Installation & Commissioning	<b>Usage &amp; Maintenance</b>
Drive Application Specialist	Drive Application Expert	PAC Automation Support	HVAC University	Program Descriptions	Training Requests

## Usage & Maintenance

Usage & Maintenance training will cover safe working practices, installation, commissioning, preventative maintenance and basic troubleshooting. This training will aid in reducing product down time and give attendees the knowledge to decrease total cost of ownership.

Duration: Varies per product.

Delivery: eLearning & Classroom

\* PDH Accreditation available.

**PPE Required to attend classroom training**

### Additional Training Resources

- [Training Account Login](#)
- [Knowledge Base, Tech. Notes & White Papers](#)
- [Live Remote Training](#)
- [Lunch & Learns](#)
- [Swipe Guides](#)
- [Solutions Podcasts](#)
- [YouTube Channel](#)
- [PDH Accreditations](#)
- [Webinars](#)
- [Training Request Form](#)

HVAC	Industrial	Water & Wastewater
<a href="#">ACH550*</a>	<a href="#">ACS550*</a>	<a href="#">ACQ550*</a>
<a href="#">ACH580*</a>	<a href="#">ACS580*</a>	<a href="#">ACQ580*</a>
	<a href="#">ACS800*</a>	
	<a href="#">ACS880*</a>	

13. Clicking on the "Product Link" will send the student to the Learning System, and the ability to view and enroll into the program of choice.

14. To enroll, click the 'Apply' button.

Usage & Maintenance - US9440

Search for: Programs

Search

Courses Classes Programs Job Roles

Please enter the program or code you wish to search for in the Program Catalog.

Search Filters

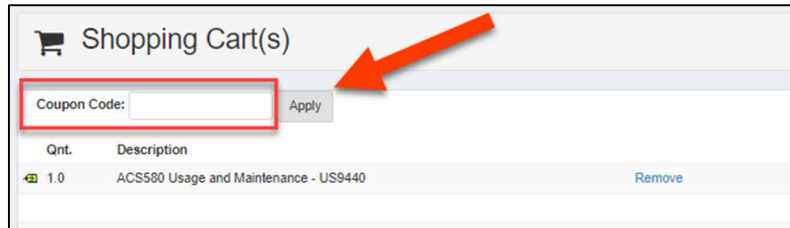
Name/Code: US9440

Type: Any/All

OK

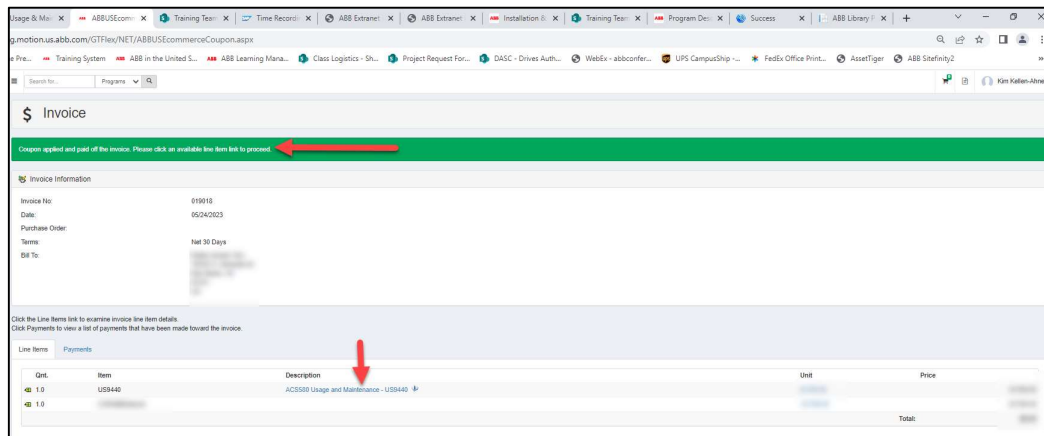
Program	Type	Status	Action
ACS550 Usage and Maintenance - US9440			<b>Apply</b>

15. On the next page, is an area to enter the Coupon Code. Once the student obtains the code from the instructor, they will enter it here, then click the 'Apply' button.



Qty.	Description
1.0	ACS580 Usage and Maintenance - US\$440

16. On the next page, 'Coupon applied and paid off the invoice' will be displayed at the top (as shown in example below). From here, click the link to the program. This will take the student into the program, where they can view and begin completing all coursework.



Qty.	Item	Description	Unit	Price
1.0	US\$440	ACS580 Usage and Maintenance - US\$440		

## Prior to Conducting a Class

### Student & Product Manuals

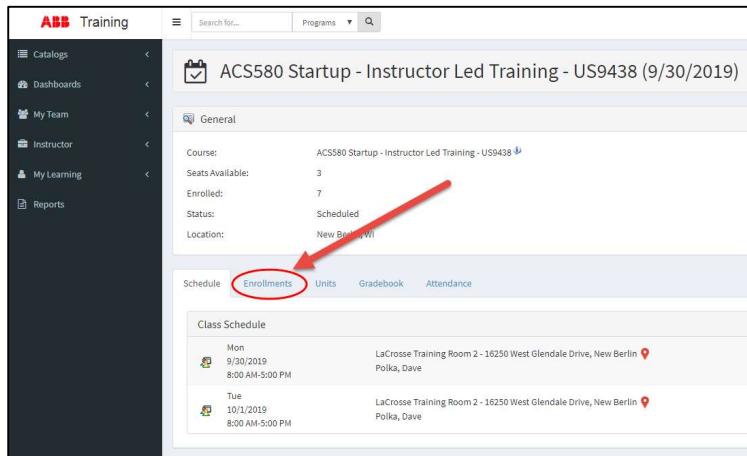
**Note:** The Training Coordinators will order a Student Manual for each student, based on your completed "class request" form. Ordering of manuals will take place 3-4 weeks prior to class. You will receive an email confirmation indicating the manuals are ordered along with tracking information.

Hardcopy Product Manuals (Hardware, Firmware, etc.) can be ordered through "ABBnow.com" at the discretion of the instructor. "Pdf" versions of the manuals can be downloaded from the "ABB Library" or from "ABBnow.com" and sent to the students for use in class. Manuals can be access from ABBnow by clicking the Literature & Images link in the Instant Access section of the Main Page.

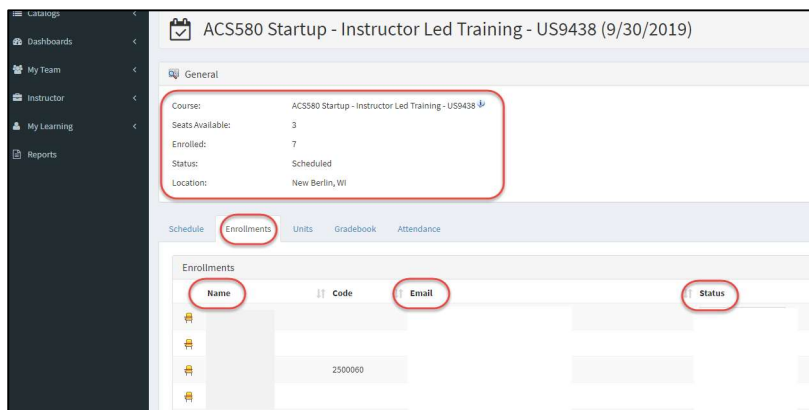


## Verify and / or print class enrollments

1. The class roster will be located on the Learning System, under the class name and date assigned to you as the instructor.



2. From here, you can view the student enrollments, and make a screen shot of the roster for your reference during class.



3. Verify the roster for accuracy, and make note of any changes in enrollments. (The Training Coordinators have the ability to modify enrollments and other student details. Inform them if changes or corrections need to be made).

## Conduct the Class

### Verify Student Roster

1. Review with students, the need for accurate information in the Learning System. Highly important, is an accurate email address. A valid company email is the only notification method used to inform the student of their "completion" status and "end-of-course exam" availability. Also note that a valid company email is also how the student is notified of expiring courses or training updates.
2. Verify the roster with student attendance, and make note of any "no-shows" or other issues.
3. Inform the Training Coordinators of any students that did not show, and they will indicate their status as a "no show" in the Learning System.

4. Verify that each student has the required PPE to attend. If they do not have their PPE, they CANNOT attend class. **Allowing a student to perform the lab exercises in class without the proper PPE is a serious safety violation and may terminate you as an instructor with ABB.**
5. If there are any "unregistered" students, contact the Training Coordinators immediately. They have not completed the required pre-requisites and therefore are not qualified to attend the "in-person" class. (All class pre-requisites and the acquisition of PPE is required ***prior to*** enrolling in and attending the class.). As an aside, unregistered students are not verified and therefore, for security reasons, should not be permitted into class.

## Procedure Notes

1. All topics must be covered to allow the student to achieve the skills necessary to perform training in accordance with established standards. In addition, class materials and activities prepare students for a successful completion of the "end-of-class exam." If more information is required related to conducting this class, please contact the Training Coordinator via email at [drivetraining@us.abb.com](mailto:drivetraining@us.abb.com).
2. The class is to be conducted according to the Outline found on the Instructor Agenda (also found in the Student Manual). Any supplemental information can be kept for future reference.
3. Revisions to the Student materials will be done as required. Updated "Instructor Materials" will be posted on "ABBnow.com > Training > Instructor Documents." A description of all topics in the class, is found in the "Program Description" located on the website. The password for protected documents is "AppTraining".
4. Stress **Safety Procedures** when taking "live" measurements.
5. Also indicate the need for true RMS readings and the meters that will give the proper results.
6. Training using an actual drive, power source, motor and Control I/O will be required.
7. Review the use of a Multimeter and a Meggar (Meg the motor).
8. Spend some time reviewing any situations that arose during the lab session.
9. Review the procedure for checking motor rotation. If training is performed on a "bypass" unit, verify the same rotation in bypass and in normal drive mode exist.

## Materials required for demonstration and Lab Exercise purposes

- |   |                                                             |
|---|-------------------------------------------------------------|
| 1 | Digital Voltmeter/Ammeter/Multimeter (supplied in ATA case) |
| 1 | Megger, Amprobe or equivalent (supplied in Instructor Bin)  |

## Special Notes

All equipment needed to conduct the class will be supplied by the Training Department, with some exceptions. Impress upon students that all equipment, materials, and cabling needs to be packed correctly to ensure the next students receive maximum benefit from their class. (Packing instructions are included in the "ATA Drive Set" case). Lab Equipment required for field classes is shipped from ABB Training, or a previous field instructor. The equipment is shipped as a complete set, 1 crate kit is enough to conduct a 6-person class. If class size exceeds (6) students, you may receive multiple crate kits or multiple classes may need to be scheduled.



The **ONLY** equipment **not supplied** by the Training Department is Personal Protective Equipment (PPE). Students are required to bring their **own PPE** to class, per the eLearning modules they completed. (Example eLearning **Legal Acknowledgment** module and **PPE Required** module).

**No PPE - No attendance in class.** Students must be turned-away at the door if they do not display the required PPE in their possession. ABB and OSHA's safety protocols must be in compliance for the class to begin. Student safety is of utmost importance.

During class, the process of performing training is most important with an emphasis on **Safety** and best practices.

An analog meter such as a Simpson Model 260 will provide true RMS readings from a PWM drive output.

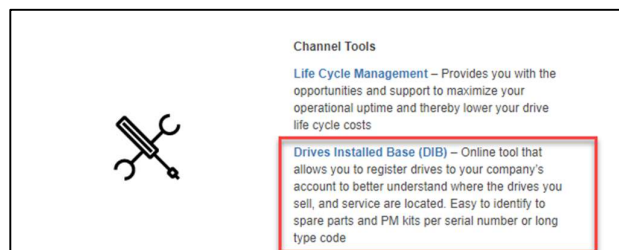
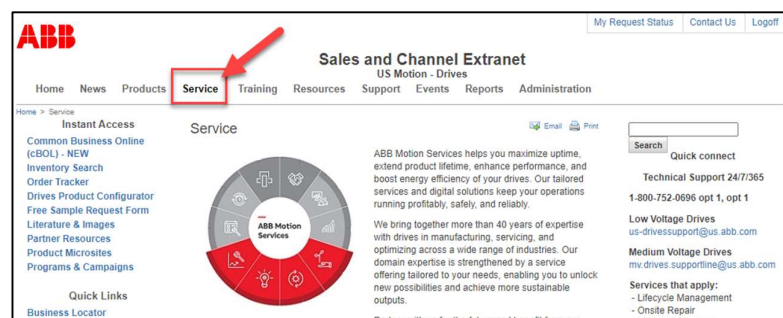
Digital meters such as a Fluke 87 or equivalent may provide a VFD Output reading as much as 8 to 10% higher than actual.

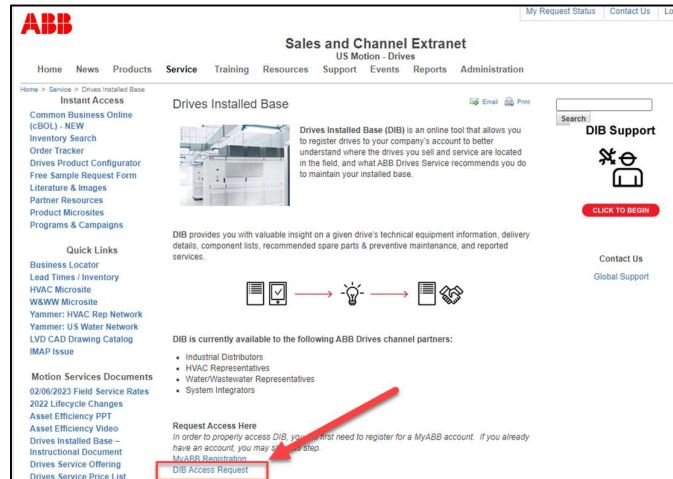
In some cases, students may be able to provide their own test equipment, as long as it meets the standards of the class objectives.

## Student Manuals (additional information)

The Student Manual contains a copy of all the appropriate class material to be used in-class. Authorized Start-up students will have a "Drive Installed Base" eLearning module to complete, indicating how they will document and register their start-up. No comments are needed in class.

If desired, and if the class make-up is **only** "channel partners," then reference can be made in-class, to the Warranty Registration process. (The Warranty Registration form can be used as a working document and is found on: [www.abbnow.com](http://www.abbnow.com) (type in "Warranty form" in the "Search" box). The actual process of documenting and registering the start-up for warranty is done on DIB (Drive Installed Base). The eLearning module explains the process of requesting access and documenting the start-up. For your reference, a screen shot of the DIB information and requesting access is shown here.



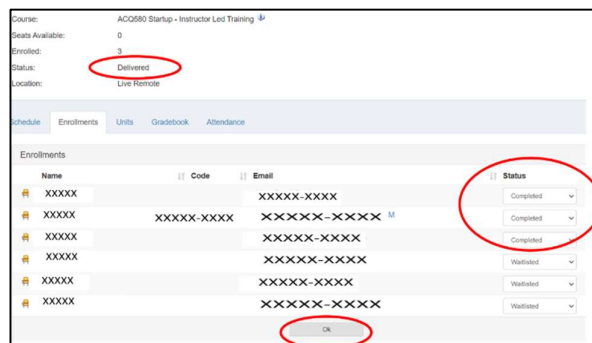


## End of the Class

### End-of-Class Logistics

Note: (2) items need to be done, before the class can be considered “complete.”

1. Display the QR code so students can complete the “post-class survey” online. If students do not have electronic means of scanning the code, give them the survey “link” which sends them to the survey website. The Training Coordinators will forward to you, the instructor, a student ID number assigned to each student. That number is used to allow completion of the survey and to follow-up with students that have not completed the survey in a timely manner.
2. Log-in to the Learning System and change the “status” of each attending student to “completed” and click “OK.” (this triggers an automated email sent to the student to indicate the class is complete, and they now have the ability to log-in to the Learning System and complete the exam.
3. Inform the Training Coordinators by email, ([drivetraining@us.abb.com](mailto:drivetraining@us.abb.com)), that the class has been conducted and delivered. The Training Coordinators will mark the class as “Delivered” in the Learning System.



**Instructor Led Training classes will not be considered “completed” until these (2) items are performed.**

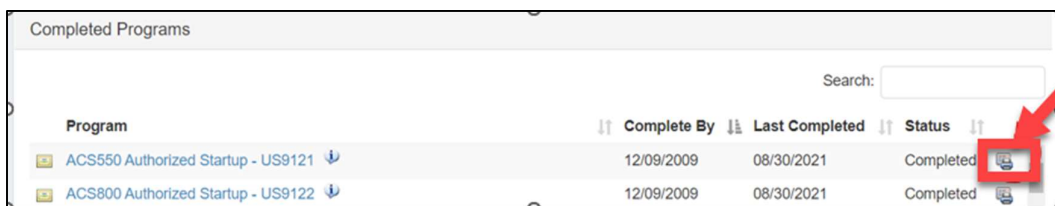
## Complete Student Status

1. When the class is complete, the Instructor will indicate the student's "completed status" in the Learning System.
2. Inform the Training Coordinators of any students that were a "no show" and they will set the status.
3. Students that may have, for personal reasons, left prior to completion should be indicated as an "Incomplete." They will be required to take the class in its entirety on a later date if they desire a "completion" status.
4. Any "unregistered" students should have already been handled at the beginning of class. Contact the Training Coordinators (ph: 262-785-3260) to discuss any un-resolved situations. As a reminder, only registered students have completed the required pre-requisites and therefore are qualified to enter the class.
5. Student "Completions" and "closing" of the class will not be done until the instructor has changed the status of each student in the Learning System. Once that is complete, the Training Coordinators need to be alerted that this is done. In addition, the online post-class survey needs to be administered.

## Confirmation of Completion – Students are Notified

1. Once student attendance have been processed, they will be notified that their final exam and any post requirements are now available.
2. They will return to the training site and take the online course(s) as they did the prerequisites.

Upon completion of all course requirements, a certificate of completion will be available for them to print directly from the Learning System.



Program	Complete By	Last Completed	Status
ACS550 Authorized Startup - US9121	12/09/2009	08/30/2021	Completed
ACS800 Authorized Startup - US9122	12/09/2009	08/30/2021	Completed



# ABB Factory Authorized Trainer Onboarding Checklist

As an ABB Factory Authorized Trainer, you play an integral role in ensuring your students have a positive experience with ABB Training and are engaged as quickly as possible in the classroom discussions and activities. In order to create a positive experience for your students, please complete the checklist below.

As an initial step, please submit a request to become an **ABB Factory Authorized Trainer**. Prior to becoming qualified to be a Trainer, you will be required to complete product training (products you will be actively training) and Train-the-Trainer Training. These programs have been established to maximize your success. From time to time, updates will be provided to trainers and they will be required to maintain a satisfactory status as a Trainer. This will guarantee you have the latest information and skills required to effectively perform as a Trainer.

ABB Factory Authorized Trainer Onboarding Checklist			
Topic	Required	Responsibility	Date Completed
<b>1. Request to become an ABB Authorized Trainer</b>	Yes	ABB Field Instructor	
• Fill form on Training Webpages. Link is also in Field Trainer Manual			
<b>2. Field Trainer Meeting</b>	Yes	ABB	
• Meet Office Manager and intended Field Trainer(s)			
• Identify classes Training Center intends to train			
• Identify audiences training will be performed for			
• Identify facilities available / resources available			
• Determine class capacities			
• Determine class volume on a monthly basis			
• Review equipment requirements if Field Trainer will be providing class equipment			
<b>3. Receive approval to become a Field Trainer</b>	Yes	ABB	
<b>4. ABB Field Trainer Completes Technical Training</b>	Yes	ABB Field Instructor	
• Trainer completes ABB Training Program they wish to deliver			
• Complete Authorized Startup to lead a Startup Class			
• Complete Usage & Maintenance or DASC to lead a Service Class			
<b>5. ABB Field Trainer Completes Train the Trainer Program</b>	Yes	ABB Field Instructor	
• ABB Training Dept. will enroll Field Trainer in program			
<b>6. Download and review Field Trainer Manual</b>	Yes	ABB Field Instructor	
<b>7. Purchase a Subscription to run classes on ABB's behalf</b>	Yes	ABB Field Instructor	
• Purchase either a 3, 6, or 12 Month Subscription			
• Choose between a Startup or Service Subscription			
<b>8. Receive access to Instructor Documents on ABBnow</b>	Yes	ABB Training	
<b>9. Prepare to lead a class</b>	Yes	ABB Field Instructor	
• Review Instructor Process			
• Review Instructor Documents and materials on ABBnow			
<b>10. Submit Request to Lead a Class</b>	Yes	ABB Field Instructor	
• Coordinate with ABB Training Dept			
• An ABB Instructor will Audit the class			
<b>11. Perform 100% of Class Material</b>	Yes	ABB Field Instructor	
• Field Trainer can work up to 100% with the assistance of ABB			
• Field Trainer can perform 25%, 50% or 100% of the class			
• ABB Instructor will perform remaining portions until Field Trainer is comfortable			
	<b>Name (Print and Signature)</b>		<b>Date Completed</b>
<b>ABB Factory Authorized Trainer Signature:</b>			

Rev A

# Instructor Audits

Probably the most exciting step of the journey is conducting your first class while being audited. This is configured in a manner that will aid in your growth as a trainer and a presenter. The new instructor can choose the amount of class they would feel comfortable performing. For some it may be 25-50% of the class with the auditor picking up the remaining portion, and for some it may be 100%. For this step you are in control of how much you can handle and how fast you can handle it.

This is a big step for many and we are here to help ease into the role, coach, mentor and support as one gains their wings. We want to help you be the best instructor you can be!

This process will be ongoing, as after you are a Factory Authorized Trainer, you will have audits from time to time that are not pre-scheduled with you. An ABB mentor may drop in at any class you are teaching to evaluate and continue the coaching and mentoring process. The following checklist is the evaluation form the Auditor will use. This is the same form used for our internal ABB Instructors.

MR-Meets Requirement, IN-Improvement Needed, ND-Not Done		M	I	N	
Section 1) Introductions		R	N	D	Comment space is provided below
1.1 Roster	Does the Instructor have a Roster or knowledge of expected attendees?				
1.2 PPE Check	Did Instructor verify each student has the required PPE?				
1.3 Initial Instructor Introduction	Did the Instructor introduce themselves to the students and shake their hand?				
1.4 Performed classroom logistics	Emergency exit(s), Restroom Location(s), etc.				
1.5 Student Name Tags & Tent Cards	Were name tags and Tent Cards distributed?				
1.6 Student Introduction	Student name? Company name? Job/position with company? Years with Co or Industry?				
1.7 Student Goal	What do you want to get out of the class?				
1.8 Instructor Introduction	Introduce yourself using same info as student introduction				
<b>Section 2) Prepared to Perform Class</b>					
2.1 Instructor prepared to deliver class	Materials, Presentation, write on board or media available				
<b>Section 3) Conduct Class</b>					
3.1 Ability to keep class on topic	Instructors ability to answer questions and get back on track.				
3.2 Instructor ability to answer questions	Instructor answers were correct and addressed student question?				
3.3 Instructors ability to identify student confusion	Identify when students are not understanding a concept or topic.				
3.4 Instructors ability to handle student personalities (overall)	How well did the instructor perform under student pressure, multiple personality types.				
3.5 Ability to handle a heckler student type					
3.6 Ability to handle a Know-it-all student type					
3.7 Ability to handle a Griper student type					
3.8 Ability to handle a Whisperer student type					
3.9 Student perception of the Instructor	Instructor attitude, body language, Instructor attire.				
3.10 Lab Reviews	Instructors ability to review and explain lab lessons learned.				
<b>See next page for additional comments. Overall Rating:</b>					





# Equipment Requirements


The following list is the equipment that will be shipped for each class. The list of equipment will also be in each crate you receive, to assist with ensuring you have received all parts, and also to help you pack each crate back up and get it ready to be shipped to the next location. This is also attached as a separate document on the Train the Trainer webpage, under the Instructor Resources section. If you would like to purchase your own equipment for your classrooms, please contact ABB Training, and we will assist you.

Industrial & Water Startup					
	TTT Field Crate - Start-up ATA	1 Crate per 6 Students	385lbs	48" L x 48" W x 36" H	
		Qty (3) Field Case (ATA)	1 case per each 2-students	70LBS	
			Qty (1) Fluke meter		
			Qty (1) Transformer Box with jumper wires		
			Qty (1) Tool bag with screw drivers, Torx wrenches ect.		
			Qty (1) 6 Switch I/O Box		
		Qty (1) Instructor Bin	1 per class		
			Qty (1) T+ Pro		
			Qty (1) Fluke Prooving Unit		
			Qty (1) Megger		
			Qty (1) Tool box		
		Qty (1) LOTO Box	1 per class		
	TTT Field Crate - ACxx80 Drive Pelican Crate	1 Crate per 6 Students	110lbs	43" L x 27 W x 26" H	
		Qty (3) ACxx80 Drive in Pelican Case	1 case per each 2-students		
			Qty (1 )ACxx80 Drive		

## HVAC Startup







	TTT Field Crate - Start-up ATA	1 Crate per 6 Students	385lbs	48" L x 48" W x 36" H	
		Qty (3) Field Case (ATA)	1 case per each 2-students	70LBS	
		Qty (1) Fluke meter			
		Qty (1) Transformer Box			
		Qty (1) Transformer Box with jumper wires			
		Qty (1) Tool bag with screw drivers, Torx wrenches ect.			
		Qty (1) Instructor Bin	1 per class		
		Qty (1) T+ Pro			
		Qty (1) Fluke Prooving Unit			
		Qty (1) Megger			
		Qty (1) Tool box			
		Qty (1) LOTO Box	1 per class		






	TTT Field Crate - ACx80 Drive Pelican Crate	1 Crate per 6 Students	195lbs	47" L x 31 W x 35" H	
		Qty (3) ACxH580 Drive in Pelican Case	1 case per each 2-students		
		Qty (1) ACH580 Drive			
		Qty (3) ACH580 E-Clipse Demo	1 case per each 2-students		

Industrial & Water Service				
	TTT Field Crate - Start-up ATA	1 Crate per 3 Students	385lbs	48" L x 48" W x 36" H
		Qty (3) Field Case (ATA)	1 case per each 2-students	70LBS
			Qty (1) Fluke meter	
			Qty (1) Transformer Box with jumper wires	
			Qty (1) Tool bag with screw drivers, Torx wrenches ect.	
			Qty (1) 6 Switch I/O Box	
		Qty (1) Instructor Bin	1 per class	
			Qty (1) T+ Pro	
			Qty (1) Fluke Prooving Unit	
			Qty (1) Megger	
			Qty (1) Tool box	
		Qty (1) LOTO Box	1 per class	






	TTT Field Crate - Start-up ATA	1 Crate per 3 Students	385lbs	48" L x 48" W x 36" H
		Qty (3) Field Case (ATA)	1 case per each 2-students	70LBS
			Qty (1) Fluke meter	
			Qty (1) Transfromer Box with jumper wires	
			Qty (1) Tool bag with screw drivers, Torx wrenches ect.	
			Qty (1) 6 Switch I/O Box	
		Qty (1) Instructor Bin	1 per class	
			Qty (1) T+ Pro	
			Qty (1) Fluke Prooving Unit	
			Qty (1) Megger	
			Qty (1) Tool box	
		Qty (1) LOTO Box	1 per class	






	TTT Field Crate - ACxx80 Drive Pelican Crate	1 Crate per 3 Students	110lbs	43" L x 27 W x 26" H
		Qty (3) ACxx80 Drive in Pelican Case	1 case per each 2-students	
			Qty (1) ACxx80 Drive	
	TTT Field Crate - ACxx80 Drive Pelican Crate	1 Crate per 3 Students	110lbs	43" L x 27 W x 26" H
		Qty (3) ACxx80 Drive in Pelican Case	1 case per each 2-students	
			Qty (1) ACxx80 Drive	

	TTT Field Crate - U&M Crate	1 Crate per 6 Students	???	48" L x 48" W x 36" H
		Qty (3) Hardware Drive Units R1-R5	Student will rotate	
		Qty (6) 12 Switch Troubleshooting I/O Boxes	1 per station	
		Qty (6) Training PC's	1 per station PC needs Drive Compser, Modbus Poll (ind), or YABE (HVAC)	
		Qty (1) Communications Bin	(3) FENA-xx modules for Ind (3) BACnet Adapters for HVAC	

## HVAC Service

	TTT Field Crate - Start-up ATA	1 Crate per 3 Students	385lbs	48" L x 48" W x 36" H
		Qty (3) Field Case (ATA)	1 case per each 2-students	70LBS
		Qty (1) Fluke meter		
		Qty (1) Transformer Box		
		Qty (1) Transformer Box with jumper wires		
		Qty (1) Tool bag with screw drivers, Torx wrenches ect.		
		Qty (1) Instructor Bin	1 per class	
		Qty (1) T+ Pro		
		Qty (1) Fluke Prooving Unit		
		Qty (1) Megger		
		Qty (1) Tool box		
		Qty (1) LOTO Box	1 per class	

	TTT Field Crate - Start-up ATA	1 Crate per 3 Students	385lbs	48" L x 48" W x 36" H
		Qty (3) Field Case (ATA)	1 case per each 2-students	70LBS
		Qty (1) Fluke meter		
		Qty (1) Transfromer Box		
		Qty (1) Transfromer Box with jumper wires		
		Qty (1) Tool bag with screw drivers, Torx wrenches ect.		
		Qty (1) Instructor Bin	1 per class	
		Qty (1) T+ Pro		
		Qty (1) Fluke Prooving Unit		
		Qty (1) Megger		
		Qty (1) Tool box		
		Qty (1) LOTO Box	1 per class	
	TTT Field Crate - ACxx80 Drive Pelican Crate	1 Crate per 3 Students	195lbs	47" L x 31 W x 35" H
		Qty (3) ACxH580 Drive in Pelican Case	1 case per each 2-students	
		Qty (1) ACH580 Drive		
		Qty (3) ACH580 E-Clipse Demo	1 case per each 2-students	
	TTT Field Crate - ACxx80 Drive Pelican Crate	1 Crate per 3 Students	195lbs	47" L x 31 W x 35" H
		Qty (3) ACxH580 Drive in Pelican Case	1 case per each 2-students	
		Qty (1) ACH580 Drive		
		Qty (3) ACH580 E-Clipse Demo	1 case per each 2-students	

	TTT Field Crate - U&M Crate	1 Crate per 6 Students	???	48" L x 48" W x 36" H
		Qty (3) Hardware Drive Units R1-R5	Student will rotate	
		Qty (6) 12 Switch Troubleshooting I/O Boxes	1 per station	
		Qty (6) Training PC's	1 per station PC needs Drive Compser , Modbus Poll (ind), or YABE (HVAC)	
		Qty (1) Communications Bin	(3) FENA-xx modules for Ind (3) BACnet Adapters for HVAC	

# FAQ's from New ABB Factory Authorized Trainers

Some commonly asked questions from new Factory Authorized Trainers might include:

- Will I be able to be competent in all these technical areas?
  - The Train the Trainer program has been configured to support the Trainer through the entire training process, both the administrative and class logistics. Trainer will not be authorized to perform solo trainings until they have obtained enough experience while support is in attendance of the classes.
- What will the students be like?
  - The students in attendance can vary drastically in expertise and knowledge. E-Learning courses are in place to aid in getting students closer to a common knowledge level. While this is not perfect, training is provided to the Trainer giving them skills, knowledge, and ability to handle a diverse class of students.
- Who will be able to help me with my questions?
  - Your best resource for questions is your direct manager, Regional Application Engineers. Regional Sales Engineers, Training Coordinators, and ABB Trainers.
- What resources are available when I need help or more information?
  - For technical topics - your direct manager, Regional Application Engineers. Regional Sales Engineer, ABB Trainers (due to training classes the ABB Trainers will have the slowest response time).
  - For administration – [drivetraining@us.abb.com](mailto:drivetraining@us.abb.com) This mailbox is monitored by the entire ABB training staff and Training Coordinators. To call and communicate directly, phone number is 262-785-3260.
  - “ABBnow.com” is your resource for instructor documents.
  - All other training information is listed on the [Training Webpages](#)
- Who do I go to if I have a problem?
  - ABB Training Coordinators: [drivetraining@us.abb.com](mailto:drivetraining@us.abb.com), 262-785-3260.
- How available will the Training Department be?
  - For logistical concerns, we handle emails and calls as fast as possible. Please know we support a large group of people and may very well be on a call. Please leave a voice message and we will attend to your concerns ASAP. For technical classroom operation issues, the Training Coordinators can transfer your call to the Technical Instructor assigned to that product/class. Keep in mind that the appropriate instructor may be conducting a class, therefore the response may be delayed.
- How will I know I am doing the right things?
  - Following the Training Checklist will ensure you are doing the right things and in the correct sequence. Ensure you start this process as soon as possible. (6-8) weeks prior to class is preferred. **Four (4) weeks prior is an absolute minimum to meet logistic requirements. Requests less than four (4) weeks will be rejected due to inability to meet deliverable time frames.**

- What are the unwritten rules?
  - There are none. Items have to be completed in their entirety. We cannot process incomplete or partially completed documentation, etc. Logistically, this also causes an extreme amount of work or doubling effect.
- How do I know I have done a good job?
  - The best indication of a good job is student evaluations.
- What do I have to do first? How do I know the priorities?
  - First thing to do is obtain Train-the-Trainer training. This will guide you through all requirements, priorities and logistical details.
- What do I need to know to become productive?
  - This information is clearly communicated through the Train-the-Trainer program.

# Contact us

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