# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>3</td>
</tr>
<tr>
<td>Benefits of BYD Training</td>
<td>3</td>
</tr>
<tr>
<td>Program Objective</td>
<td>4</td>
</tr>
<tr>
<td>Enabling Objectives</td>
<td>4</td>
</tr>
<tr>
<td>Prerequisites</td>
<td>4</td>
</tr>
<tr>
<td>- Required Equipment, Tools, and resources</td>
<td>5</td>
</tr>
<tr>
<td>- Presentation</td>
<td>5</td>
</tr>
<tr>
<td>- Trainee Evaluation</td>
<td>5</td>
</tr>
<tr>
<td>Program Administration</td>
<td>5</td>
</tr>
<tr>
<td>- Course Syllabi</td>
<td>5</td>
</tr>
<tr>
<td>Module 1: Operators Familiarization</td>
<td>6</td>
</tr>
<tr>
<td>Module 2: Technician Introduction</td>
<td>7</td>
</tr>
<tr>
<td>Module 3: First Responder</td>
<td>8</td>
</tr>
<tr>
<td>Module 4: Preventative Maintenance</td>
<td>9</td>
</tr>
<tr>
<td>Module 5: Diagnostic Equipment</td>
<td>10</td>
</tr>
<tr>
<td>Module 6: High Voltage Safety</td>
<td>11</td>
</tr>
<tr>
<td>Module 7: High Voltage Systems</td>
<td>12</td>
</tr>
<tr>
<td>Module 8: In-Wheel Hub Drive Motors</td>
<td>13</td>
</tr>
<tr>
<td>Module 9: Body Sections</td>
<td>14</td>
</tr>
<tr>
<td>Module 10: Low Voltage Systems</td>
<td>15</td>
</tr>
<tr>
<td>Module 11: Regenerative Braking</td>
<td>16</td>
</tr>
<tr>
<td>Module 12: Braking and Suspension</td>
<td>17</td>
</tr>
</tbody>
</table>
INTRODUCTION

BYD’s Training University (TRAINS U) is designed to provide maintenance personnel and operators with the knowledge and skills required to operate BYD’s Transit Bus, as well as perform preventative maintenance inspections, daily maintenance, and authorized repairs.

Please direct all training inquiries to:

Michael Conner
Customer Training Manager
213-359-8065
michael.conner@byd.com

This training is based on a maximum of ten students per session, and will be conducted in a classroom or a maintenance shop, by a qualified instructor. Some training sessions require that a bus be made available by the property. Mechanics and operators attending training must have basic skills and knowledge of subject matters presented. Please kindly notice that any cancellation of scheduled training sessions must be done two weeks or more prior to the event.

Training durations and subjects are suggestions. Sessions can be adjusted to suit individual Property needs, and training on non-standard programs or different accessories may be required by different properties. BYD reserves the right to revise or modify the programs offered as necessary to help ensure that properties can properly operate and maintain the BYD bus.

BENEFITS OF BYD TRAINING

BYD believes that the successful implementation of any new technology is dependent on proper training. In order to eliminate any apprehension regarding all-electric vehicles, BYD feels that both the operators and the service technicians need to understand the technology and be comfortable with it. In fact, with Zero-Emissions vehicles it is incumbent upon all Electric Vehicle Original Equipment Manufacturers (OEMs) to create an environment for operators and service technicians that breeds enthusiasm for the new technology among all involved. In order to do so, training has to be at the crux of all the educational process for electric transit buses.

Because training is such an integral component of successful deployment, our trainers are expert technicians who know our buses and systems completely, and can handle all questions that might come up during the training modules.

This is why BYD provides flexible training options that include both onsite training at the transit property’s facility and education at our Lancaster factory. BYD does not adhere to a rigid training schedule; we are dedicated to providing training as often as it is needed—and we tailor our schedule to meet all of our transit partners’ needs.

Because TRAINS U uses a combination of “hands on” and “book,” training, we always prefer smaller class sizes. BYD can, however, work on a larger scale with classes up to 15+ people, if
necessary. We also provide training on swing and graveyard shifts so as to minimize disruption to our transit partners’ day-to-day activities.

BYD recognizes that no two people learn, comprehend, or digest material at the same pace, so we provide training as frequently as necessary in any given module until each one of our transit partners’ personnel fully grasp the lessons. BYD is also open to providing one-on-one training upon request to any trainee that may need extra time. Our mission is to provide all of the training as frequently and as often as necessary to our transit partners, in order to ensure that there is short- and long-term success in the deployment of BYD Zero-Emission buses.

Upon completion of TRAINS U, each participant will receive BYD certification.

PROGRAM OBJECTIVE

The objective of TRAINS U is provide the student all the necessary instruction to impart key knowledge and skills required to operate a BYD all-electric bus, perform PM inspections and daily maintenance, and accomplish authorized repairs.

ENABLING OBJECTIVES

The following are the enabling objectives that will be learned in BYD’s TRAINS U:

- Safely and efficiently manage all operating systems, safety, emergency functions, and emergency procedures on BYD’s all-electric bus.
- Troubleshoot, diagnose, service, and maintain the bus’s electrical multiplexing, charging, and starting systems.
- Troubleshoot, diagnose, repair, and maintain the entrance and exit doors.
- Troubleshoot, diagnose faults to, and perform adjustments on and repairs to the wheelchair ramp system.
- Troubleshoot, diagnose, service, and maintain the ABS Brake System.
- Troubleshoot, diagnose, service, and maintain the air system.
- Troubleshoot, diagnose, service, and maintain the suspension and steering system.
- Troubleshoot, diagnose, service, and maintain the articulation joint (if applicable).
- Effectively use and understand the Manuals provided for Service, Parts, and Operations.
- Troubleshoot, diagnose, and maintain the electric propulsion system.
- Safely and efficiency manage all operating systems, safety, emergency functions, and emergency procedures on BYD’s all-electric bus.
- Troubleshoot, diagnose, service, and maintain the air conditioning system.
- Troubleshoot, diagnose, service, and maintain the destination signs.
- Troubleshoot, diagnose, service, and maintain the BYD Charging Interface.

PREREQUISITES

Participants should have basic knowledge in the operation, maintenance, servicing, and repair of transit-style buses.
REQUIRED EQUIPMENT, TOOLS, AND RESOURCES

- Classroom, desk, and chairs to accommodate trainees
- Whiteboard (Blackboard), eraser, and markers
- Projection Screen
- DVD Player and Monitor
- LCD Computer Projector
- Standard bus service tools
- Training aids for module(s) as specified in the contract
- Mock-ups for the module(s) as specified in the contract
- Videos for module(s) as specified in the contract

PRESENTATION

Instruction will be provided by lecture, demonstration, and practical exercises for each module of instruction.

TRaineE EVALUATION

Each trainee, having completed TRAINS U, will be provided a certification of completion by BYD.

PROGAM ADMINISTRATION

The Customer’s Maintenance Training Coordinator, in conjunction with BYD’s Training Department, will determine the composition of training sessions, and develop a training calendar to meet the needs of the Maintenance Department. The Customer will also arrange and schedule class location and attendance for each training session. BYD will arrange facilitators to present the material for each training session in accordance with the calendar. BYD will provide the Customer an attendance sheet at the conclusion of each training block. Upon the completion of each training session, BYD will provide the Customer copies of all documentation (test scores, written and practical) for each trainee. BYD will also provide copies of all approved lesson plans utilized during the course of the program, including training aids, handouts, overhead transparencies, slides, videos, and mock-ups.

BYD will be responsible for modifying Lesson Plans and accompanying documentation as required throughout the program. Any modifications are subject to the approval of the Customer.

COURSE SYLLABI

Course syllabi for instruction modules Facility, Service, Operator, and Vendor Training are outlined on the following pages.
MODULE 1: OPERATORS FAMILIARIZATION

This module is designed to offer all of the necessary training and understanding for all transit personnel that will be driving the bus. BYD recommends that this module be the first course for all of the agencies personnel prior to attending the remaining more specific modules.

RECOMMENDED AUDIENCE

We recommend that all operators be present at this course. However, it highly recommended that all transit personnel who will have access to BYD’s Electric Bus also be in attendance.

MODULE LESSON

This module will incorporate 31 PowerPoint slides. This module will take approximately 3-4 hours to complete. This course will cover the following:

- Checking before driving
- Daily Fluid Checks
- Powering on the High Voltage Batteries
- Understanding of instruments and controls
- Air Brake Testing
- ADA Restraints
- First Responders
- Energy Recovery and Regenerative Braking
MODULE 2: TECHNICIAN INTRODUCTION

This module is designed to provide in-depth familiarization to all technicians in order to provide the necessary understanding of how to identify each component on the bus as well how they will operate based on the integrations with BYD Electric Bus.

RECOMMENDED AUDIENCE

We recommend that all transit technicians be present at this course.

MODULE LESSON

This module will take approximately 6-7 hours to complete. This course will cover the following:

- Body and Construction
- Windshield
- Exterior Lighting
- Rear Lamps
- Windshield Wiper System
- Front Access Panel
- Heating and Cooling
- Exterior Mirrors
- Low Voltage Electrical Equipment
- Gateway Systems
- Dash and Instruments
- Front Axle and Brakes
- Steering
- Suspension
- Air Systems
- Anti-lock Brakes
- High Voltage Batteries
- Drive Axle
- Under the Hood
- High Voltage Controller System
- Hydraulic reservoir
- Cooling System
- 3-in-1 Module
- Power Steering Pump
- Low Voltage Fuse Box
- Radiators
- High Voltage Battery Service Plug
- Door System
- Ramp System
- Economy Driving
- Charging the Bus
MODULE 3: FIRST RESPONDER

This module is designed to provide all first responders with the required information and understanding on how to secure BYD’s Electric Bus in the event of an accident. BYD places this training module in high importance for anyone related to public safety.

RECOMMENDED AUDIENCE

The recommended audience for this module are all first responders; i.e. local police, fire department, and road supervisors.

MODULE LESSON

This module will incorporate 21 PowerPoint slides. The amount of time for this course is solely dependent on the time it takes for first responders to feel comfortable with handling all safety related issues with the bus. This course covers the following:

- Vehicle Overview
- Park Brake Release
- Emergency Power Down Button
- Front Door Air Release
- Rear Door Air Release
- Emergency Exits
- High Voltage Manual Breaker
- Battery SDS Information
MODULE 4: PREVENTATIVE MAINTENANCE

This module is designed to provide hands on classroom and bus materials that will offer detailed instructions on how preventative maintenance is handled on each of BYD’s Electric bus. This module is of high level importance as it provides all the relevant personnel with the proper processes of handling preventative maintenance on the bus.

RECOMMENDED AUDIENCE

This module is geared towards transit preventative maintenance personnel.

MODULE LESSON

This course will incorporate 35 PowerPoint Slides. This module in total will take approximately 7 hours to complete. The module will cover the following:

- PM Performance Inspections
- Drive Axle and Drive Components
- Air Compressor
- Steering Systems
- Amerex Systems
MODULE 5: DIAGNOSTIC EQUIPMENT

This module is designed to provide information on how to fully diagnosis the bus in the event of malfunction or error in the driving process. This course will provide detailed information on how to fully diagnosis the vehicle in order to provide BYD’s Aftersales Support department and/or transit maintenance personnel the correct information on issues with the bus.

RECOMMENDED AUDIENCE

BYD recommends that this is attended by all the necessary transit personnel, who will be responsible for running diagnostics on the bus.

MODULE LESSON

This module will be hands on for each of the personnel in attendance. This module will incorporate 60 PowerPoint slides. This module will take approximately 7 hours to complete. This module will cover the following:

- BYD ED400 or VDS2000 Diagnostic Equipment Familiarization
- 24V System
- Gateway System
- Battery Management System
- Rear Auxiliary Controller
- Steering Motor Controller
- Leakage Sensor
- Vehicle Controller
- Air Compressor
- Water Pump
- BYD Laptop
- ECAS Suspension Systems
- HVAC System
- Door System
- Amerex First Suppression
- Knorr Wabco ABS
MODULE 6: HIGH VOLTAGE SAFETY

This course is designed to provide all personnel the necessary familiarization for anyone coming in contact with the High Voltage Equipment of hazards and how to understand, deal with, and prevent injury from those hazards.

RECOMMENDED AUDIENCE

The module is recommended for all personnel who will come in contact with or will be handling BYD’s High Voltage Equipment.

MODULE LESSON

The module will incorporate 27 PowerPoint slides. This module will be 4-5 hours to complete. This module will cover the following:

- Understanding NFPA 70E
- Qualified Person vs. Unqualified
- Terminology and Definitions
- Arc Flash and Shock Risk
- Identifying Electrical Hazards
- Electrically Safe Work Condition
- Lock Out Tag Out
- Appropriate PPE and Tools
- High Voltage Component Safety
MODULE 7: HIGH VOLTAGE SYSTEMS

This module is designed to provide all technicians with the understanding of how to make repairs to all High Voltage Systems on BYD’s Electric Bus.

RECOMMENDED AUDIENCE

The recommended audience for this module are technicians who will be responsible for High Voltage System repairs.

MODULE LESSON

This module will incorporate 80 PowerPoint slides. The module will be approximately 7 hours to complete. The module will cover the following:

- High Voltage Components
- Battery Layout and Construction
- DC-DC Converter
- Battery Management System
- Battery Management System Diagnostics
- High Voltage Distribution Box
MODULE 8: IN-WHEEL HUB DRIVE MOTORS

This module is designed to provide all transit personnel the information necessary to understand how to manage, diagnosis, and align BYD’s proprietary in-wheel hub motors and rear axle.

RECOMMENDED AUDIENCE

The recommended audience for this module is all maintenance and technicians that will be handling and working with repairs on the axles.

MODULE LESSON

This module will incorporate 35 PowerPoint slides. The module will take approximately 4 hours to complete. This module will cover the following:

- In-Wheel Motors
- Diagnostics
- Removal and Installation
- In-Wheel Drive Axle and Alignment
MODULE 9: BODY SECTIONS
This module is designed to provide shop personnel the necessary information regarding all body sections on BYD’s Electric Bus.

RECOMMENDED AUDIENCE
The recommended audience will be all transit body shop personnel.

MODULE LESSON
This module will take approximately 7 hours to complete. The module will cover the following:

- Framework
- Doors
- Wheelchair Ramp
- Glass
- Accessories
- Lower Panel Replacement
MODULE 10: LOW VOLTAGE SYSTEMS

This module is designed to provide detailed information on the low voltage systems within BYD’s Electric Bus. This will help all technician understand what components that run directly on the low voltage battery system.

RECOMMENDED AUDIENCE

The recommended audience for this course is the transit technicians.

MODULE LESSON

This module will take approximately 8 hours to complete. This module will cover the following:

- Definition and Assembly
- Wiring Harness
- Driving Area Switches
- Dashboard
- Illuminating and Signal Devices
- Destination Sign
- Audio Systems
- Horn
- Data Reader
- Controller and Info Module
- Auxiliary Power and Dashboard
MODULE 11: REGENERATIVE BRAKING
This module is designed to provide information on how the regenerative braking system works directly with BYD’s Electric Bus. It will further detail how the regenerative braking system provides additional power to the high voltage batteries to extend overall daily range.

RECOMMENDED AUDIENCE
The recommended audience for this module are the transit technicians.

MODULE LESSON
This module will take approximately 8 hours to complete. This module will cover the following:

- Concept
- Control Logic
- Components and Theories
- Troubleshooting
MODULE 12: BRAKING AND SUSPENSION

This module is designed to provide information on how the braking and suspension system works in integration with BYD’s Electric Bus. This module will provide information on how all braking, air, steering and suspension systems work and can be diagnosed.

RECOMMENDED AUDIENCE

The recommended audience for this module is the transit technicians.

MODULE LESSON

This module will take approximately 8 hours to complete. The module will cover the following:

- Introduction to systems
- Braking Systems
- Air Systems
- Suspension
- Steering Systems
- Diagnostics
- Schematics