



THE OFFICIAL  
ASE CATALOG OF TESTS

**ASE**

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**Transit Bus**

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**Tests**

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# ***ASE Transit Bus Tests***

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## **Introduction**

The *Official ASE Catalog of Transit Bus Tests* is intended to help technicians study for the ASE certification tests. The specific material about each test, which is found in the following pages, should prove to be a useful tool for reviewing the technical knowledge that is covered in the Transit Bus tests. After performing a thorough review, it should be easier to select additional reference material that will assist you with your test preparation needs.

ASE voluntary certification is a means through which technicians can prove their abilities to themselves, to their employers, and to their customers. By passing ASE tests you will earn the most valuable credential available to working technicians. Because the tests are tough, you'll have the satisfaction of proving to yourself that you are among the elite in your profession. What's more, these credentials are recognized throughout the nation.

Certified technicians promote customer trust and improve the image of the industry. And trust and professionalism are the first steps to a better, more prosperous business.

ASE encourages you to take the tests and to join the proven pros who wear the ASE Blue Seal of Excellence®.

## **How Do I Become Certified?**

There are two tests in the Transit Bus certification series thus far. If you pass one or more tests, and have at least two years of hands-on working experience in transit bus repair, then you will become certified as an ASE Transit Bus Technician. (Appropriate vocational training may be substituted for up to one year of work experience.)

If you fail a test, you may take it again during any scheduled test administration in which it is offered. And remember, you are the only one who will receive your tests scores; results will not be given over the phone nor will they be released to anyone without your written permission.

ASE also offers certification in Automobile, Medium/Heavy Truck, Truck Equipment, School Bus, Collision Repair/Refinish, Engine Machinist, and Advanced Level specialties. Separate *Catalogs* are available.

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## OVERVIEW (CONTINUED)

For additional information on ASE testing, visit [www.ase.com](http://www.ase.com) or you can receive the *Registration Booklet* by mailing the coupon contained on the back cover of this booklet. The *Registration Booklet* will give you the test dates, locations and other important information about the certification program. It also contains a registration form to use in signing up for the tests.

### **Who Writes the Questions?**

The questions, written by service industry experts familiar with all aspects of transit bus repair, are entirely job-related. They are designed to test the skills that you need to know in servicing transit buses; theoretical knowledge is not covered.

Each question has its roots in an ASE “item-writing” workshop where service representatives from working bus technicians, vocational educators, transit agency directors, and representatives from parts and equipment manufacturers meet in a workshop setting to share ideas and translate them into test questions. Each test question written by these experts must survive review by all members of the group. The questions are written to deal with practical problems of diagnosis and repair experienced by technicians in their day-to-day work.

From there, all questions are pre-tested and quality-checked on a national sample of technicians. Those questions that meet ASE standards of quality and accuracy are included in the scored sections of the tests; the “rejects” are sent back to the drawing board or discarded altogether.

Each transit bus certification test is made up of between 50 and 60 multiple-choice questions. The testing sessions are 4 hours and 15 minutes, allowing plenty of time to complete several tests.

*Note:* For the first test administration each test will be approximately double in length to include questions on the test that are for statistical purposes and will not be scored. Answers to these questions do not affect test scores, but since they are not separately identified in the test, all questions should be answered.

### **How Do I Prepare for the ASE Tests?**

Become familiar with test content and question format: The Test Specifications in this booklet contain a summary description of the content covered by each test. The Specifications Task Lists describe the actual work performed by technicians in each specialty area. Together, these form a “blueprint” for writing and assembling the ASE tests.

Please note that each question on the test is keyed, or linked, to a particular task or set of tasks in the task list. Therefore, a review of the task lists, with an eye to judging whether you know how to perform each task listed, will provide you valuable information as you prepare for the tests.

There are five types of multiple-choice questions on the tests, each of which is included in the sample questions in this booklet. Note the different instructions for each question type.

Be sure to read each question carefully, (twice, if necessary) so that you understand exactly what is being asked. *Each question tests a specific diagnostic or repair problem and has only one best answer.*

To summarize, we suggest the following steps be taken:

**Step 1.** Study the content list for each test you will attempt.

**Step 2.** Carefully read the task list for each area.

**Step 3.** Go over the sample questions to become familiar with each question type. This is very important.

**Step 4.** Review steps 1 through 3 and identify the skill area(s) where you need additional study.

## **Types of Knowledge Measured By the Tests**

The types of knowledge and skills you will need to know to pass the tests are as follows:

- **Basic technical knowledge:** Tests your knowledge of what is in a system and how the system works, and what are the proper procedures and precautions to be followed in making repairs and adjustments.
- **Service or repair knowledge and skill:** Tests your understanding and ability to apply generally accepted repair procedures and precautions in assembly, disassembly, and reconditioning operations; and in making inspections and adjustments. Also tests ability to use shop manuals and precision tools of the trade.
- **Testing and diagnostic knowledge and skill:** Tests your ability to recognize problems and to use generally available measurement and testing equipment to make a diagnosis. Also tests your ability to trace the effects of a particular condition and find the cause of a particular set of symptoms.

If you are an experienced and competent technician, a careful review of this booklet, and additional brush-up on those areas in which you are weakest, is all you should need to pass the ASE tests.

## **Before The Tests**

Try to be well-rested for the tests so you will be alert and efficient. Have three or four sharpened soft-lead (#2) pencils and an eraser with you; pencils will not be furnished at the test center. If you wish to pace yourself, bring a watch, some testing rooms may not have clocks. Finally, be sure to bring along your test center admission ticket and a photo I.D.

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## OVERVIEW (CONTINUED)

### ***At the Test Center***

When you reach the test center, wait in the assigned area until the proctor begins the test administration. He or she will instruct you in filling out the answer folder and will tell you the amount of time allotted for each test.

Once the test has begun, keep track of time. Do not spend too long on any one question. If a question is difficult, mark the answer that you think is correct and put a check by it in the test book. Then go on to the next question. If you finish before the allotted time, you may go back to the questions that you checked.

**It is to your advantage to answer every question. Do not leave any answers blank. Your score will be based on the number of correct answers that you give.**

### ***Test Content and Sample Questions***

The following material is designed to help technicians prepare for the ASE certification tests.

Each section begins with the Test Specifications, which will list the main categories covered on that particular test and the number of test questions and percentage of the test devoted to each topic.

The Task List describes the work activities a technician should be able to perform in each technical area covered on that test. This list was developed by working technicians and technical experts from across the country and will provide a valuable check list of what to study for the test.

These task descriptions offer detailed information to technicians preparing for the test and to persons who may be instructing technicians. The task lists may also serve as guidelines for question writers, reviewers, and test assemblers.

It should also be noted that the number of questions in each content area may not equal the number of tasks listed. Some of the tasks are complex and broad in scope and may be covered by several questions. Other tasks are simple and narrow in scope and one question may cover several tasks. The main objective in listing the tasks is to describe accurately what is done on the job, not to make each task correspond to a particular test question.

Sample questions follow. Although these same questions will not appear on actual tests, they are in the same format as actual test questions. All five types of multiple-choice questions used on the ASE tests are represented here. Note the different instructions for some questions. ■

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# TEST SPECIFICATIONS AND TASK LIST

## BRAKES (TEST H4)

Content Area	Questions in Test	Percentage of Test
A. Air Supply and Service Systems		
Diagnosis and Repair	24	48%
B. Mechanical/Foundation Brakes		
Diagnosis and Repair	14	28%
C. Parking Brakes Diagnosis and Repair	7	14%
D. Wheel Bearings Diagnosis and Repair	5	10%
<b>Total</b>	<b>50</b>	<b>100.0%</b>

**Brakes H4:** Designed to test a candidate's knowledge of the skills necessary to diagnose and repair transit bus air brakes and related systems. Air system, foundation brakes, parking brakes, and wheel bearings will be covered. Antilock brakes (ABS), automatic traction control (ATC), and various system interlocks that affect brake operation will also be included.

### A. Air Supply and Service Systems Diagnosis and Repair (24 questions)

1. Diagnose poor stopping, pulling, grabbing, dragging, overheating, and air leak (static and applied) problems, caused by supply and service system malfunctions; determine needed repairs.
2. Check air system build-up and recovery time; determine needed repairs.
3. Drain air reservoir tanks; check for oil, water, and foreign material; determine needed repairs.
4. Inspect, adjust, align, or replace air compressor drive gears, and couplings.
5. Inspect, repair, or replace air compressor, air intake, oil and coolant lines and fittings.
6. Inspect, test, adjust, or replace system pressure controls (governor/ relief valve), unloader assembly valves, pressure protection valves, and filters.
7. Inspect, repair, or replace air system lines, hoses, fittings, and couplings.
8. Inspect, test, clean, or replace air tank relief (pop-off) valves, one-way check valves, drain cocks, automatic drain (spitter) valves, heaters, wiring, and connectors.
9. Inspect, clean, repair, or replace air drier systems, filters, valves, heaters, wiring, and connectors.
10. Inspect, test, repair, or replace brake application (foot/treadle) valve, fittings, and mounts; check and adjust brake pedal free play.
11. Inspect, test, clean, or replace two-way (double) check valves and anti-compounding valves.
12. Inspect, test, repair, or replace stop and parking brake light circuit switches, wiring, and connectors.

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## H4 TASK LIST (CONTINUED)

13. Inspect, test, repair, or replace brake relay valve and quick-release valves.
14. Inspect, test, repair, or replace interlock system solenoid valves, regulator valves, pressure switches, and related components.
15. Inspect, test, and replace inversion/emergency (spring) brake control valve(s).
16. Inspect, test, repair, or replace low pressure warning devices.
17. Inspect, test, and replace air pressure sensors, gauges, lines, and fittings.
18. Inspect, test, and replace parking brake override valve.
19. Inspect, test, repair, or replace towing circuit components.
20. Perform antilock brake system and automatic traction control (ABS/ATC) warning lamp start-up test; determine needed repairs; diagnose hard fault codes/diagnostic trouble codes (DTCs) using scan tool, PC computer, or LEDs; determine needed repairs.
21. Diagnose poor stopping and lockup problems on antilock brake systems (ABS); determine needed repairs.
22. Test, adjust, or replace antilock brake system (ABS) wheel speed sensors and tone/exciter rings.
23. Test and replace antilock brake system and automatic traction control system (ABS/ATC), electronic control units (ECU) and modulator valves; test, repair, and replace wiring and connectors.
24. Verify proper operation of auxiliary (transmission retarder, driveline, exhaust, and engine) braking systems

### **B. Mechanical/Foundation Brakes Diagnosis and Repair (14 questions)**

1. Diagnose poor stopping, brake noise, overheating, premature wear, pulling, grabbing, or dragging complaints caused by foundation brake, slack adjuster, and brake chamber problems; determine needed repairs.
2. Perform deceleration tests on service and parking brake systems.
3. Inspect, test, adjust, repair, or replace service brake chambers, diaphragm, clamp, spring, pushrod, clevis, and mounting brackets.
4. Inspect, test, adjust, repair, or replace manual and automatic slack adjusters.
5. Inspect or replace S-cams, rollers, shafts, bushings, seals, spacers, and retainers.
6. Inspect, or replace brake spider, shields, anchor pins, bushings, and springs.
7. Inspect, clean, adjust, rebuild or replace air disc brake caliper assemblies.
8. Inspect brake shoes, linings, or pads; determine needed repairs.
9. Inspect brake drums or rotors; determine needed repairs.
10. Resurface brake drums and linings; resurface rotors.

### **C. Parking Brakes Diagnosis and Repair (7 questions)**

1. Inspect or replace parking (spring) brake chamber; dispose of removed brake chambers in accordance with local regulations.
2. Inspect, test, or replace parking (spring) brake valves, lines, hoses, and fittings.
3. Manually release and cage parking (spring) brakes.

### **D. Wheel Bearings Diagnosis and Repair (5 questions)**

1. Remove and replace axle hub and wheel assembly.
2. Clean, inspect, lubricate, or replace wheel bearing assemblies; replace seals and wear rings.
3. Adjust axle wheel bearings in accordance with manufacturer's procedures.

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## H4 TASK LIST (CONTINUED)

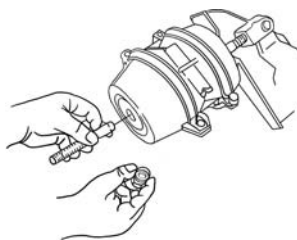
4. Inspect or replace extended service (sealed, close-tolerance, and unitized) bearing assemblies; perform initial installation in accordance with manufacturer's procedures.
5. Replace seals and O-rings on planetary axle assemblies; adjust axle endplay. ■

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# SAMPLE QUESTIONS BRAKES (TEST H4)

## Questions:

1. A transit bus, with a ruptured air supply tank, is being towed from the front. The technician should:
  - (A) prevent the steering wheel from turning.
  - \* (B) cage the rear air brake chambers.
  - (C) drain the air from the secondary tank.
  - (D) cage the front air brake chambers.
2. The setup at right shows the first step in:
  - (A) measuring chamber pushrod travel.
  - (B) adjusting spring brake tension.
  - \* (C) manually releasing the spring brake.
  - (D) adjusting the brakes for lining wear.
3. Brake shoe-to-drum clearance, on a transit bus with cam brakes, is maintained by adjusting the:
  - \* (A) slack adjuster.
  - (B) shoe anchor pins.
  - (C) pushrod.
  - (D) cam roller eccentrics.
4. The parking brakes fail to apply on a transit bus with air brakes. Technician A says that low air pressure in the spring brake chamber could be the cause. Technician B says that a ruptured spring brake diaphragm could be the cause. Who is right?
  - (A) A only
  - (B) B only
  - (C) Both A and B
  - \* (D) Neither A nor B



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## H4 SAMPLE QUESTIONS (CONTINUED)

5. The air line from the air drier to the air supply (wet) tank is being replaced. Technician A says that there should be no low spots in the line after installation. Technician B says that a smaller diameter line may be used for the replacement. Who is right?
- \* (A) A only (C) Both A and B  
(B) B only (D) Neither A nor B
6. A transit bus's parking brake valve button pops out immediately after being depressed. Technician A says that this could be caused by low system air pressure. Technician B says that this could be caused by air in the emergency chamber. Who is right?
- \* (A) A only (C) Both A and B  
(B) B only (D) Neither A nor B
7. A transit bus has an uneven braking problem. Which of these could be the cause?
- (A) A binding treadle (foot) valve  
(B) Low brake line air pressure
- \* (C) A bad brake drum  
(D) A bad governor

*Question 8 is not like the ones above.*

This Question has the word **EXCEPT**. Look for the choice that could **NOT** cause the described situation. Read the entire question carefully before choosing your answer.

8. An air compressor is not unloading, causing the air tank safety valve to pop off. This could be caused by any of these EXCEPT:
- \* (A) an obstructed intake.  
(B) a restricted governor reservoir line.  
(C) a bad governor.  
(D) a bad unloader.

# TEST SPECIFICATIONS AND TASK LIST

## ELECTRICAL/ELECTRONIC SYSTEMS (TEST H6)

Content Area	Questions in Test	Percentage of Test
A. General Electrical Diagnosis	20	33%
B. Battery Diagnosis and Repair	6	10%
C. Starting System Diagnosis and Repair	8	13%
D. Charging System Diagnosis and Repair	9	15%
E. Lighting Systems Diagnosis and Repair	8	13%
1. Headlights, Daytime Running Lights, Parking, Clearance, Tail, Interior, and Dash Lights (5)		
2. Stoplights, Turn Signals, Hazard Light, and Backup Lights (3)		
F. Gauges and Warning Devices Diagnosis and Repair	4	7%
G. Related Systems	5	8%
<b>Total</b>	<b>60</b>	<b>100%</b>

**Electrical/Electronic Systems H6:** Designed to test a candidate's knowledge of the skills necessary to diagnose and repair transit bus electrical/electronic systems and components. General electrical, battery, starting, charging, and lighting systems and gauges will be covered. The use of schematics, ladder logic, and electronic equipment to solve problems in electrical/electronic and multiplex circuits will also be included.

### A. General Electrical Diagnosis (20 questions)

1. Verify operator complaint, reproduce the condition (including intermittent problems), and/or road test vehicle; determine necessary action.
2. Check continuity in electrical/electronic circuits using appropriate test equipment.
3. Check applied voltages, circuit voltages, and voltage drops in electrical/ electronic circuits using a digital multimeter (DMM).
4. Check current flow in electrical/electronic circuits and components using an ammeter, digital multimeter (DMM), or a clamp-on ammeter.
5. Check electronic circuit waveforms using an oscilloscope or graphing multimeter (GMM); interpret readings and determine needed repairs.
6. Check resistance in electrical/electronic circuits and components using an ohmmeter or a digital multimeter (DMM).
7. Locate shorts, grounds, and opens in electrical/electronic circuits.
8. Diagnose battery drain problems with the master/key switch off.

9. Inspect and test circuit breakers, solid state current limiters, and fuses; replace as required.
10. Inspect and test spike suppression diodes/resistors and capacitors; replace as required.
11. Inspect and test relays and solenoids; replace as required.
12. Read and interpret electrical schematic diagrams and symbols.
13. Read and interpret ladder logic diagrams to diagnose electrical/electronic problems.
14. Diagnose and repair computer communication multiplex systems; determine needed repairs.
15. Using a laptop computer, establish communication with a multiplex control system. Verify that the needed ladder logic inputs are active to control an individual/specific ladder logic output.
16. Remove, replace, and adjust electrical/electronic switches, sensors, and other electrical/electronic components.
17. Use proper care and handling of electrical/electronic components.

**B. Battery Diagnosis and Repair (6 questions)**

1. Perform battery load and/or capacitance tests; determine needed repairs.
2. Determine battery state of charge by measuring open circuit voltage (OCV) using a digital multimeter (DMM) or perform a specific gravity test using a hydrometer.
3. Inspect, clean, and service battery, cables, terminal connections, and disconnects; replace as required.
4. Inspect, clean, and repair battery boxes, mounts, and hold downs; replace as required.
5. Charge battery/batteries, using slow or fast charge method as appropriate.
6. Jump-start a transit bus using jumper cables and a booster battery or auxiliary power supply.

**C. Starting System Diagnosis and Repair (8 questions)**

1. Perform starter circuit voltage drop tests; determine needed repairs.
2. Inspect and test components of the starter control circuit (master/key switch, push button and/or magnetic switch, and wires); replace as required.
3. Inspect and test starter, relays, and solenoids/switches; replace as required.
4. Remove and replace starter; inspect flywheel ring gear or flex plate.
5. Inspect, clean, repair or replace cranking circuit battery cables and connectors.
6. Differentiate between electrical, multiplex, or mechanical problems that cause a slow cranking, no cranking, extended cranking, or a cranking noise condition.

**D. Charging System Diagnosis and Repair (9 questions)**

1. Diagnose the cause of a no-charge, low-charge, or overcharge condition; determine needed repairs.
2. Inspect and adjust alternator drive belts/gears, pulleys, fans, mounting brackets, and tensioners; replace as required.
3. Perform charging system output tests (12 volt and 24 volt); determine needed repairs.
4. Perform charging circuit voltage drop tests; determine needed repairs.
5. Test, adjust, or replace voltage regulator.
6. Maintain, remove, and replace alternator.
7. Inspect, repair, or replace charging circuit connectors and wires.

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## H6 TASK LIST (CONTINUED)

8. Check battery equalizer output, check wiring and mounting; determine needed repairs.
9. Verify operation of charging system circuit monitor; determine needed repairs.

### **E. Lighting Systems Diagnosis and Repair (8 questions)**

1. Headlights, Daytime Running Lights, Parking, Clearance, Tail, Interior, and Dash Lights (5 questions)
  1. Diagnose the cause of brighter than normal, intermittent, dim, or no headlight and daytime running light (DRL) operation.
  2. Test, aim, and replace headlights.
  3. Test headlight and dimmer switches, wires, connectors, terminals, sockets, relays, and control components; repair or replace as required.
  4. Inspect, test, and repair parking, clearance, and taillight circuit switches, bulbs, sockets, connectors, terminals, relays, wires, and light-emitting diodes (LEDs); replace as required.
  5. Inspect, test, and repair dash light circuit switches, bulbs, sockets, connectors, terminals, wires, and printed circuits; replace as required.
  6. Inspect, test, and repair interior and exterior light circuit switches, bulbs, sockets, connectors, terminals, ballasts/inverters, and wires; replace as required.

### **2. Stoplights, Turn Signals, Hazard Lights, and Backup Lights (3 questions)**

1. Inspect and test stoplight circuit switches, bulbs, sockets, connectors, terminals, relays, control components, and wires; repair or replace as required.
2. Diagnose the cause of turn signal and hazard flasher light system malfunctions; determine needed repairs.
3. Inspect and test turn signal and hazard circuit flashers or other control components, switches, bulbs, sockets, connectors, terminals, relays, wires, and light-emitting diodes (LEDs); repair or replace as required.
4. Inspect, test, and adjust backup light and warning devices, circuit switches, bulbs, sockets, connectors, terminals, and wires; repair or replace as required.

### **F. Gauges and Warning Devices Diagnosis and Repair (4 questions)**

1. Diagnose the cause of intermittent, high, low, or no gauge readings; determine needed repairs.
2. Diagnose the cause of control area network (CAN) driven gauge malfunctions; determine needed repairs.
3. Inspect, test, and adjust gauge circuit sending units, sensors, gauges, connectors, terminals, and wires; repair or replace as required.
4. Inspect and test warning device (lights and audible) circuit sending units, sensors, bulbs, audible components, sockets, connectors, terminals, wires, and printed circuits/control modules; repair or replace as required.
5. Inspect and test electronic speedometer and odometer systems; replace as required; verify proper calibration for vehicle application.

### **G. Related Systems (5 questions)**

1. Inspect and test horns, horn circuit relays, switches, connectors, terminals, and wires; repair or replace as required.
2. Diagnose the cause of constant, intermittent, or no wiper operation; diagnose the cause of wiper speed control and/or park problems.

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## H6 TASK LIST (CONTINUED)

3. Inspect and test wiper motor, resistors, park switch, relays, switches, connectors, terminals, and wires; repair or replace as required.
4. Inspect and test windshield washer motor or pump/relay assembly, switches, connectors, terminals, and wires; repair or replace as required.
5. Inspect and test side view mirror motors, heater circuit grids, relays, switches, connectors, terminals, and wires; repair or replace as required.
6. Inspect and test HVAC electrical components including: A/C clutches, motors, resistors, relays, switches, controls, connectors, terminals, and wires; repair or replace as required.
7. Inspect and test engine cooling fan electrical control components; replace as required. ■

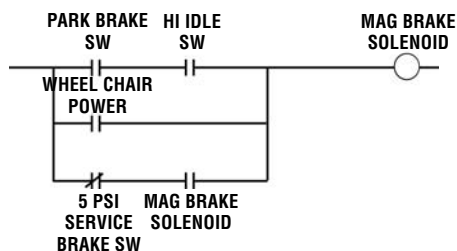
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# SAMPLE QUESTIONS

## ELECTRICAL/ELECTRONIC SYSTEMS (TEST H6)

### Questions:

- The headlights on a transit bus work OK on low beam, but they are very dim on high beam. Which of these could be the cause?  
(A) A bad headlight ground  
(B) A bad ground at the master switch  
(C) An overloaded circuit breaker  
\* (D) Corroded dimmer switch contacts
- The operator notices battery odor while the transit bus is being driven. Which of these could be the cause?  
\* (A) The alternator is overcharging.  
(B) The electrolyte level is low.  
(C) The battery connections are loose.  
(D) The alternator drive belt is slipping.
- Technician A says that a battery equalizer ensures that both batteries charge at the same rate.  
Technician B says that a battery equalizer converts 24 volts to 12 volts in a 24-volt/two-battery system.  
Who is right?  
(A) A only  
(C) Both A and B  
\* (B) B only  
(D) Neither A nor B
- A transit bus's windshield wipers work sporadically.  
Technician A says that an open (broken) wire could be the cause.  
Technician B says that a loose wiring connection could be the cause.  
Who is right?  
(A) A only  
(C) Both A and B  
\* (B) B only  
(D) Neither A nor B
- A transit bus's horn sounds continuously. The first thing the technician should check is the:  
(A) horn ground wire.  
\* (B) horn relay.  
(C) horn circuit breakers.  
(D) horn contact ring.



6. According to the logic in the schematic shown above, the MAG brake solenoid will release only when the:
- (A) wheelchair power is on.
  - (B) “hi idle” is on.
  - (C) park brake is applied.
  - \* (D) service brake is applied.

*Questions 7 and 8 are not like the ones above.*

Each of these has the word **EXCEPT**. For each question, look for the choice that could **NOT** cause the described situation. Read the entire question carefully before choosing your answer.

7. When arc welding on a transit bus, a technician should disconnect all of these EXCEPT the:
- (A) batteries.
  - (B) engine control module.
  - (C) transmission control module.
  - \* (D) starter.
8. All of these could cause high starter current draw EXCEPT:
- (A) worn starter bushings.
  - \* (B) a bad starter relay.
  - (C) grounded field coils.
  - (D) a grounded armature.

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## Industry Training

The following sources of information provide comprehensive listings of training resources available to working technicians:

### **Delmar's Automotive Catalog**

Delmar Learning  
5 Maxwell Drive  
Clifton Park, NY 12065  
1-800-477-3692  
www.autoed.com

### **MD Publications**

Undercar Digest, July Issue  
Transmission Digest, September Issue  
P.O. Box 2210  
Springfield, MO 65801  
1-800-274-7890

### **Motor Age Training for Certification**

131 West First Street  
Duluth, MN 55802  
800-240-1968  
www.motorage.com

### **Motor Source Guide**

Hearst Business Publishing, Inc.  
645 Stewart Ave.  
Garden City, NY 11530  
www.motor.com

### *In Canada*

#### **Thomson Learning Nelson Canada**

1120 Birchmount Road  
Scarborough, Ontario M1K 5G4  
1-800-268-222  
E-mail: inquire@nelson.com

### **Fleet Equipment, April Issue**

P.O. Box 7605  
Mt. Prospect, IL 60056-7605  
www.truklink.com

**CASE: ASE Certification for Training Providers of Continuing Automotive Service Education. Visit [www.natef.org/case/case\\_certified.cfm](http://www.natef.org/case/case_certified.cfm) for periodic updates to this list.**

The National Institute for Automotive Service Excellence (ASE) and its educational foundation, the National Automotive Technicians Education Foundation (NATEF), offer a voluntary certification program for institutions and organizations providing continuing automotive service education. ASE seeks to improve the quality of continuing automotive education and help automotive technicians identify appropriate training sources and activities by evaluating and certifying providers of continuing automotive service education against CASE Standards.

The CASE program differs from ASE's existing entry-level training program certification in that it addresses the training provider's process of developing and delivering training as opposed to prescribing specific program content. Elements of organization, structure and methods which appear to contribute significantly to the development and delivery of high quality automotive service education, have been identified and incorporated into the CASE Standards.

The following training providers have achieved CASE certification. Please note that \* indicates a proprietary program unavailable to all technicians.

### **3M Automotive Aftermarket Division**

3M Center Bldg. 223-6N-01  
St. Paul, MN 55144-1000  
www.3m.com/automotive

### **ACDelco Service Training**

6200 Grand Pointe Drive  
Grand Blanc, MI 48439  
(800) 825-5886  
www.acdelcotechconnect.com

**AKZO NOBEL Coatings Inc., Car Refinishes**

5555 Spalding Drive  
Norcross, GA 30092  
(800) 234-0965  
[www.akzonobelcarrefinishes.net](http://www.akzonobelcarrefinishes.net)

**Aspire, Inc.**

925 Lincoln Hwy.  
Morrisville, PA 19067  
(800) 247-1099 x123  
[www.aspireinc.com](http://www.aspireinc.com)

**Autocolor Refinish Training Dept. (PPG)**

19699 Progress Drive  
Strongsville, OH 44149  
(440) 572-6983  
[www.ppg.com](http://www.ppg.com)

**BASF Corporation**

26701 Telegraph Road  
Southfield, MI 48034  
(800) 201-1605  
[www.basfrefinish.com](http://www.basfrefinish.com)

**Brake Parts, Inc.** (formerly Dana Brake & Chassis Technical Service Dept.)

4400 Prime Parkway  
McHenry, IL 60050  
(815) 363-9000-ask for Technical Services  
[www.raybestos.com](http://www.raybestos.com)

**Bronx Community College**

University Avenue and West 181<sup>st</sup> Street  
Bronx, NY 10453  
[www.bcc.cuny.edu](http://www.bcc.cuny.edu)

**Car-O-Liner Company**

29900 Anthony Drive  
Wixom, MI 48393  
(800) 521-9696  
[www.car-o-liner.com](http://www.car-o-liner.com)

**CARQUEST Technical Institute**

P.O. Box 26929  
Raleigh, NC 27611-6929  
(919) 573-2500  
[www.ctitraining.org](http://www.ctitraining.org)

**\*Castrol North America, Inc.**

1500 Valley Road  
Wayne, NJ 07470  
(888) CASTROL

**Chief Automotive Systems, Inc.**

P.O. Box 1368  
1924 E. 4<sup>th</sup> Street  
Grand Island, NE 68802-1368  
(800) 445-9262  
[www.chiefautomotive.com](http://www.chiefautomotive.com)

**\*DaimlerChrysler Academy – School of Technical Training**

2367 Walton Blvd.  
Auburn Hills, MI 48326  
(800) 898-1183  
[www.techauthority.com](http://www.techauthority.com)

**DuPont Performance Coatings**

Barley Mill Plaza, Building 21  
Lancaster Pike and Route 141  
Wilmington, DE 19805  
(800) 3DUPONT prompt 6  
[www.performancecoatings.dupont.com](http://www.performancecoatings.dupont.com)

**EAST Training Inc.**

2 Coleman Court  
Southampton, NJ 08088  
(888) 979-9920  
[www.easttraining.com](http://www.easttraining.com)

**Federal Mogul Technical Education Center**

6565 Wells Avenue  
St. Louis, MO 63133  
(888) 771-6005  
[www.federal-mogul.com](http://www.federal-mogul.com)

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## INDUSTRY TRAINING

### **\*Freightliner LLC**

5169 N. Lagoon Avenue  
Portland, OR 97217  
(503) 745-7725

### **\*General Motors Service Technical College**

1650 Research Drive, Suite 200  
Troy, MI 48083  
(888) 748-2687  
www.gmstc.com

### **I-CAR (Inter-Industry Conference on Auto Collision Repair)**

3701 Algonquin Road  
Suite 400  
Rolling Meadows, IL 60008  
(800) 422-7872  
www.i-car.com

### **\*International Truck and Engine Corp.**

455 North Cityfront Plaza Drive  
Chicago, IL 60611  
(800) 365-0088

### **Jiffy Lube International, Inc.**

700 Milam  
Houston, TX 77002  
www.jiffylube.com

### **Lew Kinney & Associates**

Welding Training  
P.O. Box 511  
Centerburg, OH 43011  
(740) 625-6342 FAX: (740) 625-WELD  
www.lewkinney.com

### **\*Lexus**

19001 S. Western Avenue  
Torrance, CA 90509  
(310) 468-7171  
www.lexus.com

### **Lord Corporation**

2000 West Grandview Blvd.  
Erie, PA 16509  
(814) 868-3611 x3237  
www.fusor.com

### **Martin Senour Automotive Finishes**

Warrensville Campus  
4440 Warrensville Center Road  
Warrensville Heights, OH 44128-2837  
(630) 887-7516 x228  
www.martinsenour-autopaint.com

### **Melior, Inc.**

One Perimeter Park South  
Suite 450 North  
Birmingham, AL 35243-3201  
(877) 224-0435  
www.melioronline.com

### **Mid-Del Technology Center**

Electric Vehicle Center (EVCT)  
3921-B S.E. 29<sup>th</sup> Street  
Del City, OK 73115  
(405) 672-6665  
www.evtraining.com

### **NAPA Institute of Automotive Technology**

2999 Circle 75 Parkway  
Atlanta, GA 30339  
(800) 292-NIAT (6428)  
www.niat-training.com

### **Nationwide Performance Improvement Organization-**

9243 North High Street  
Lewis Center, OH 43035

### **\*Nissan North America, Inc.**

PO Box 191  
Gardena, CA 90248-0191  
(310) 771-5246  
www.nissantechinfo.com

### **Performance Achievement Group LLC**

1200 John Q. Hammons Drive, Suite 200  
Madison, WI 53717  
(608) 827-2610 or (800) 355-4881  
www.performanceachievement.com

### **PPG Automotive Refinish Group**

19699 Progress Drive  
Strongsville, OH 44149  
(440) 572-6983 or (800) 970-2283  
www.ppgrefinish.com

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**Raytheon Professional Services, LLC**

1650 Research Drive, Suite 200  
Troy, MI 48083  
(248) 619-8302  
dkrasny@raytheon.com  
Contact: Dave Krasny

**Sherwin-Williams  
Automotive Finishes Corp.**

Warrensville Campus  
4440 Warrensville Center Road  
Warrensville Heights, OH 44128-2837  
(630) 887-7516 x228  
www.sherwin-automotive.com

**Snap-on Training Solutions**

420 Barclay Blvd.  
Lincolnshire, IL 60069  
(847) 478-7037  
www.snapontraining.com

**Standard Motor Products Engine  
Management Learning Center**  
(formerly Dana Engine Management  
Learning Center)

3018 Skyway Circle South  
Irving, TX 75038-4205  
(972) 256-2751  
www.smp-training.com

**\*Toyota**

19001 S. Western Avenue  
Torrance, CA 90509  
(310) 468-7171  
www.toyota.com

**TTi (Technical Training, Inc.)**

2750 Product Drive  
Rochester Hills, MI 48309  
(248) 853-5550 or (800) 837-5222  
www.ttinao.com

*\* This program is proprietary and therefore not available to all technicians.*

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# NOTES:



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Leesburg, VA 20175

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