

## Section 10: School Buses

This section covers:

- Wisconsin License Requirements
- General School Bus Rules
- Danger Zones and Use of Mirrors
- Loading and Unloading
- Student Management
- Emergency Exit and Evacuation
- Railroad-Highway Grade Crossings
- Antilock Braking Systems
- Special Safety Considerations

Because state and local laws and regulations regulate so much of school transportation and school bus operations, many of the procedures in this section may differ from state to state. You should be thoroughly familiar with all school bus procedures, laws, regulations and local school district procedures.

### Wisconsin License Requirements

You must have a school bus (“S”) endorsement if you drive a vehicle (painted school bus colors) transporting:

- Pupils to or from school, or points designated by the school.
- Persons with disabilities or elderly persons in connection with any transportation assistance program.

See “School Bus or Alternative Vehicle” in the front of this manual or at [www.cdl.wi.gov](http://www.cdl.wi.gov) for more information.

### Qualifications and Tests

To operate a school bus, drivers must have a school bus (“S”) endorsement. To operate a school bus, which is a commercial motor vehicle (CMV), drivers must also have a commercial driver license (CDL) with a passenger (“P”) endorsement. Section 4 outlines the information you need to qualify for a CDL with a passenger endorsement. In addition, you will need to take a special school bus knowledge test, highway signs test and pass a skills test in a school bus. Prepare for the CDL knowledge tests by studying the information included in Sections 2 through 4 of this manual. Prepare for the school bus knowledge test by studying this section.

If you take the skills test in a school bus designed to carry fewer than 16 passengers (including the driver), you will be restricted to driving a school bus of this size (non-CMV).

### Additional Requirements

There are additional requirements for a school bus endorsement. To qualify for the endorsement, school bus drivers must:

- Be at least 18 years old. (If you are under 21 years of age, you will be restricted to intrastate operation only—“No CMV operation in interstate commerce”).
- Not have been convicted of reckless driving, operating a motor vehicle while under the influence of an intoxicant or controlled substance or any felony on the “School Bus Disqualifications List” in the front of this manual or at [www.cdl.wi.gov](http://www.cdl.wi.gov).

- Have sufficient use of both hands and the foot normally used to operate the foot brake and accelerator safely.
- Have at least 20/40 vision corrected or uncorrected in each eye, have a minimum of 70 degrees field of vision in each eye and be able to identify traffic signal colors.
- Be able to hear a forced whisper at five feet with or without a hearing aid.
- Pass a special physical examination as required by Wisconsin law or present the Federal Medical Card.
- To retain the “S” endorsement, you must pass a physical every 2 years and upon renewal (every year if age 70 or older).
- At each renewal of the “S” endorsement, or other time frames determined by Wisconsin Statutes, school bus drivers must be retested (if 70 or older, they must be retested every 2 years).

### General School Bus Rules

In addition to knowing and obeying general traffic rules applicable to all buses and large vehicles, school bus drivers must comply with the following rules and safe driving practices:

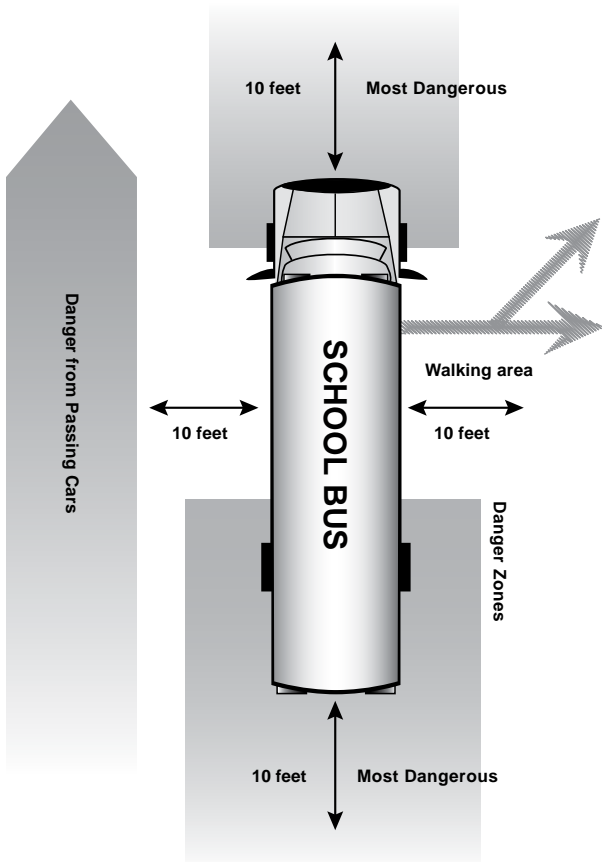
- Keep doors closed when moving, except when crossing railroad tracks.
- Transport authorized passengers only.
- Keep aisles, stairwells, and steps clear of book bags, band instruments, etc.
- Conduct a complete inspection prior to each trip. (See “Pre-Trip Inspection” in Section 11.)
- Keep children out of the back row of seats except when the bus is filled. Sitting near the front of the bus provides greater protection in rear end collisions.
- Seat students with special needs near the driver.
- Keep students seated when the bus is moving unless they are going to a door before stopping or to their seat immediately after loading.
- Prohibit smoking on the bus.
- Maintain a time schedule but not at the expense of safety.
- Use approved routes and pickup or discharge points.
- Follow approved routes except in an emergency.
- NEVER leave the bus unattended with the engine running and the keys in the ignition.
- Wear the safety belt.

## 10.1 Danger Zones and Use of Mirrors

### 10.1.1 DANGER ZONES

The danger zone is the area on all sides of the bus where children are in the most danger of being hit, either by another vehicle or their own bus. The danger zones may extend as much as 30 feet from the front bumper with the first 10 feet being the most dangerous, 10 feet from the left and right sides of the bus and 10 feet behind the rear bumper of the school bus. In addition, the area to the left of the bus is always considered dangerous because of passing vehicles. Figure 10-1 illustrates these danger zones.

*Figure 10-1: The Danger Zones*



### 10.1.2 CORRECT MIRROR ADJUSTMENT

Proper adjustment and use of all mirrors is vital to the safe operation of the school bus in order to observe the danger zone around the bus and look for students, traffic and other objects in this area. You should always check each mirror before operating the school bus to obtain a maximum viewing area. If necessary, have the mirrors adjusted.

### 10.1.3 OUTSIDE LEFT AND RIGHT SIDE FLAT MIRRORS

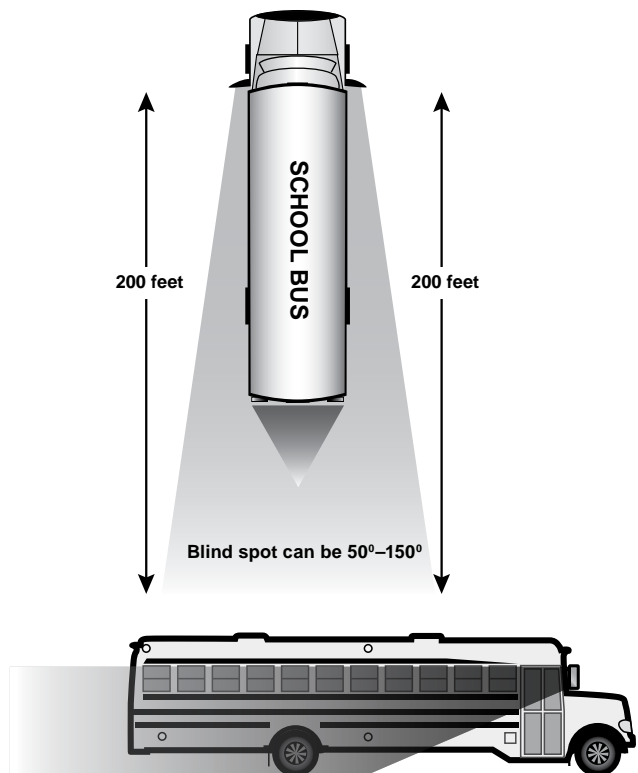
These mirrors are mounted at the left and right front corners of the bus at the side or front of the windshield. They are used to monitor traffic, check clearances and students on the sides and to the rear of the bus. There is a blind spot immediately below and in front of each mirror and directly in back of the rear bumper. The blind spot behind the bus extends 50 to 150 feet and could extend up to 400 feet depending on the length and width of the bus.

Ensure that the mirrors are properly adjusted so you can see:

- 200 feet or 4 bus lengths behind the bus.
- Along the sides of the bus.
- The rear tires touching the ground.

Figure 10-2 shows how both the outside left and right side flat mirrors should be adjusted.

*Figure 10-2: Left and Right Side Flat Mirrors*



May use in conjunction with the left and right side convex mirrors to obtain desired visibility.

### 10.1.4 OUTSIDE LEFT AND RIGHT SIDE CONVEX MIRRORS

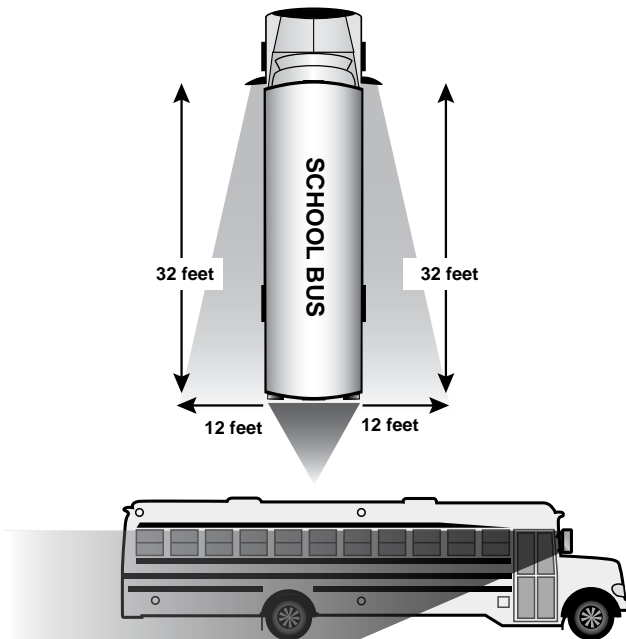
The convex mirrors are located below the outside flat mirrors. They are used to monitor the left and right sides at a wide angle. They provide a view of traffic, clearances and students at the side of the bus. These mirrors present a view of people and objects that does not accurately reflect their size and distance from the bus.

You should position these mirrors to see:

- The entire side of the bus up to the mirror mounts.
- Front of the rear tires touching the ground.
- At least one traffic lane on either side of the bus.

Figure 10-3 shows how both the outside left and right side convex mirrors should be adjusted.

**Figure 10-3:** Left and Right Side Convex Mirrors



May use in conjunction with the left and right side standard (flat) mirrors to obtain desired visibility.

### 10.1.5 OUTSIDE LEFT AND RIGHT SIDE CROSSOVER MIRRORS

These mirrors are mounted on both left and right front corners of the bus. They are used to see the front bumper “danger zone” area directly in front of the bus that is not visible by direct vision and to view the “danger zone” area to the left side and right side of the bus, including the service door and front wheel areas. The mirror presents a view of people and objects that does not accurately reflect their size and distance from the bus. The driver must ensure that these mirrors are properly adjusted.

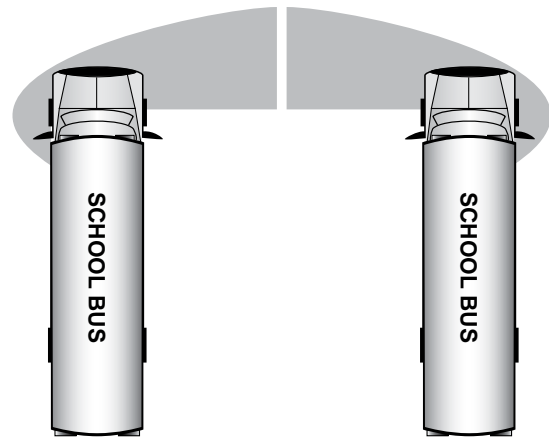
Ensure these mirrors are properly adjusted so you can see:

- The entire area in front of the bus from the front bumper at ground level to a point where direct vision is possible. Direct vision and mirror view vision should overlap.
- The right and left front tires touching the ground.
- The area from the front of the bus to the service door.

These mirrors, along with the convex and flat mirrors, should be viewed in a logical sequence to ensure that a child or object is not in any of the danger zones.

Figure 10-4 illustrates how the left and right side crossover mirrors should be adjusted.

**Figure 10-4:** Left and Right Side Crossover Mirrors



### 10.1.6 OVERHEAD INSIDE REARVIEW MIRROR

This mirror is mounted directly above the windshield on the driver's side area of the bus. This mirror is used to monitor passenger activity inside the bus. It may provide limited visibility directly in back of the bus if the bus is equipped with a glass-bottomed rear emergency door.

There is a blind spot area directly behind the driver's seat as well as a large blind spot area that begins at the rear bumper and could extend up to 400 feet or more behind the bus. You must use the exterior side mirrors to monitor traffic that approaches and enters this area.

You should position the mirror to see:

- The top of the rear window in the top of the mirror.
- All of the students, including the heads of the students right behind you.

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## 10.2 Loading and Unloading

More students are killed while getting on or off a school bus each year than are killed as passengers inside of a school bus. As a result, knowing what to do before, during, and after loading or unloading students is critical. This section will give you procedures to help you avoid unsafe conditions which could result in injuries and fatalities during and after loading and unloading students.

### **Routes, Stops, Pickup and Discharge Points**

Each school district establishes official routes and official school bus stops. All stops should be approved by the school district prior to making the stop. You should never change the location of a bus stop without written approval from the appropriate school district official.

Select pickup and discharge points carefully. Report those sites that are dangerous to local School Boards. Other drivers should be able to see the bus in plenty of time.

## Using Flashing Red Warning Lights

A school bus has no special right-of-way privileges on highways except when picking up or discharging students. When you stop, you must use the flashing red warning lights and the stop arm.

All vehicles must stop no closer than 20 feet to a stopped school bus with flashing red warning lights and stop arm extended. The only exception is vehicles traveling in the opposite direction on a divided highway. Do not use flashing red warning lights where both sides of the road have curb and sidewalk, unless required by local ordinance.

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*Operators of vehicles proceeding in the opposite direction on a divided highway are not required to stop for stopped school buses displaying flashing red warning lights (s.346.48(1)), Wisconsin Statutes.*

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School bus drivers are responsible for reporting to appropriate law enforcement agencies, incidents of drivers who do not stop for a stopped school bus with flashing red warning lights activated and stop arm extended. Note time and location, license number, color and type of vehicle, weather and road conditions.

### 10.2.1 APPROACHING THE STOP

You must use extreme caution when approaching a school bus stop. You are in a very demanding situation when entering these areas. It is critical that you understand and follow all state and local laws and regulations regarding approaching a school bus stop. This includes the proper use of mirrors, flashing red warning lamps, the moveable stop arm and when equipped, the crossing control arm.

**When approaching the stop**, you should:

- Approach cautiously at a slow rate of speed.
- Look for pedestrians, traffic or other objects before, during and after coming to a stop.
- Continuously check all mirrors.
- Turn on flashing red warning lights at least 100 feet before the stop or sooner if conditions warrant.
- Determine if other drivers have observed flashing red warning lights and have time to stop.
- Stop in the farthest right driving lane.
- Bring the bus to a full stop with the front bumper at least 10 feet away from students at the designated stop. This forces students to walk to the bus so you have a better view of their movements.
- Activate the stop arm only after the bus has stopped and before opening the door.
- Place the transmission in Park or Neutral and apply the foot brake to prevent the bus from accidentally moving.
- Make a final check to see that all traffic has stopped before completely opening the door and signaling students to approach.

### 10.2.2 LOADING PROCEDURES

- Perform a safe stop as described in subsection 10.2.1.
- Students should wait in a designated location for the school bus, facing the bus as it approaches.
- Students should board the bus only when signaled by the driver.
- Monitor all mirrors continuously.
- Count the number of students at the bus stop and be sure all board the bus. If possible, know names of students at each stop. If there is a student missing, ask the other students where the student is.
- Have the students board the bus slowly, in single file, and use the handrail. The dome light should be on while loading in the dark.
- Wait until students are seated and facing forward before moving the bus.
- Check all mirrors. Make certain no one is running to catch the bus.
- If you cannot account for a student outside, secure the bus, take the key, and check around and underneath the bus.
- When all students are accounted for, prepare to leave by:
  - » Checking all mirrors including the crossover mirror(s).
  - » Closing the door to retract the stop arm.
  - » Engaging the transmission.
  - » Turning off the flashing red warning lights.
  - » Allowing congested traffic to disperse.
  - » Check the crossover mirror(s) and both outside rear view mirrors again.
- When it is safe, move the bus, enter the traffic flow and continue the route.

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**Note:** Do not use the flashing red warning lights when operating a school bus to transport adults or when a school bus is being used for non-school functions. When the bus is used for these situations, cover the words, "school bus" on the front and rear of the bus.

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**Wisconsin Exception:** If transporting children for any purpose, school bus markings may remain uncovered and flashing red lights used (s.346.48(2)(c), Wisconsin Statutes)

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### ***Without Flashing Warning Lights***

If you are loading or discharging students in areas where flashing warning lights are not required, follow these procedures:

- Activate the yellow hazard lights at least 100 feet before the stop.
- Check traffic and move over to the right curb.
- Observe traffic carefully.
- Tell students to stand away from the road when waiting to board and to move away from the bus immediately after they get off.
- Instruct students who must cross the street to go to the cross walk and wait until it is safe to proceed.
- When students are safely aboard or unloaded, turn off the hazard warning lights, check traffic and use the left turn signal to re-enter traffic. Teach students these procedures. Work with parents to promote safety.

### ***Loading Procedures at School***

The loading procedure is essentially the same wherever you load students, but there are slight differences at some locations. When students are loading at the school campus, you should:

- Arrive before students are in the loading area at dismissal time.
- Drive slowly in and near the school loading area.
- Park in designated loading area.
- Turn off the ignition switch.
- Remove the key if you are leaving the driver's compartment and set the parking brake.
- Position yourself to supervise loading as required or recommended by your state or local regulations.
- After loading is complete, enter the traffic flow and continue the route.
- Do not pass other buses, remain in line.
- Maintain proper following distances, etc.

### **10.2.3 UNLOADING PROCEDURES ON THE ROUTE**

Any school bus driver approaching the front or rear of a stopped school bus that is displaying flashing red warning lights shall also display its flashing red warning lights and stop arm while stopped.

- Perform a safe stop at designated unloading areas as described in subsection 10.2.1.
- Have the students remain seated until told to exit.
- Check traffic and all mirrors, especially the right outside mirror.
- Open the door and count the students as they leave the bus.
- After counting the students exiting the bus, partially close the door so other students do not enter or exit.
- Students living on the left side of the road should wait 10–12 feet in front of the bus.
- Those living on the right should move away from the bus immediately. However, they should not move toward the rear of the bus.

- Recheck traffic and all mirrors, especially the left outside mirror.
- After determining it is safe to cross, give a clear hand signal to students while keeping a lookout for traffic. Choose a predetermined signal such as sounding the horn to warn students if there is danger. Choose a signal that will not be misunderstood by the other drivers. Continuously monitor all mirrors.
- Recount all students who have been discharged. (Those crossing the road and on the right side of the bus.)
- If you cannot account for a student who has been discharged, secure the bus, take the key and check around and underneath the bus.
- When all students are accounted for, prepare to leave by:
  - » Checking all mirrors, including the crossover mirror(s).
  - » Closing the door to retract the stop arm.
  - » Engaging the transmission.
  - » Turning off the flashing red warning lights.
  - » Allowing congested traffic to disperse.
  - » Check crossover mirror(s) and both outside rear view mirrors again.
- When it is safe, move the bus into the flow of traffic and continue the route.

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**Note:** If you have missed a student's unloading stop, do not back up. Be sure to follow local procedures.

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### ***Additional Procedures for Students Who Must Cross the Roadway***

You should understand what students are to do when exiting a school bus and crossing the street in front of the bus. In addition, you should also understand that students might not always do what they are supposed to do.

If a student or students must cross the roadway, they should follow these procedures:

- Walk approximately 10 feet away from the side of the school bus to a position where you can see them.
- Walk to a location at least 10 feet in front of the right corner of the bumper, but still remaining away from the front of the school bus.
- Stop at the right edge of the roadway. You should be able to see the student's feet.
- Upon your signal, the students should:
  - » Cross far enough in front of the school bus to be in your view.
  - » Walk to the left edge of the school bus, stop, and look again for your signal to continue crossing the roadway.
  - » Look for traffic in both directions, making sure the roadway is clear.
  - » Proceed across the roadway, continuing to look in all directions.

- The school bus driver should:
  - » Instruct students about the hazards that are part of riding the bus or crossing the road.
  - » Instruct them how to protect themselves in a crash and the proper evacuation procedures.
  - » Remind children to continually follow safety procedures.
  - » Inform them of expected, acceptable behavior.
  - » Handle disciplinary problems as they occur.

#### 10.2.4 UNLOADING PROCEDURES AT SCHOOL

State and local laws and regulations regarding unloading students at schools, particularly in situations where such activities take place in the school parking lot or other location that is off the traveled roadway, are often different than unloading along a school bus route. It is important that the school bus driver understands and obeys state and local laws and regulations. The following procedures are meant to be general guidelines when unloading at the school:

- Drive slowly in and near the school unloading area.
- Park in designated area.
- Never back a bus on school grounds.
- Come to a complete stop.
- Shift to park or neutral and apply foot brake.
- Secure the bus by:
  - » Turning off the ignition switch, engage the parking brake.
  - » Removing the key if you are leaving the driver's compartment.
- Have the students remain seated until they are told to exit.
- Position yourself to supervise unloading as required or recommended by your state or local regulations.
- Have students exit in an orderly fashion.
- Observe the students as they step from the bus to see that they all promptly move away from the unloading area.
- Walk through the bus and check for hiding/sleeping students and items left by students.
- Check all mirrors. Make certain no students are returning to the bus.
- If you cannot account for a student outside the bus and the bus is secure, check around and underneath the bus.
- When all students are accounted for, prepare to leave by:
  - » Closing the door.
  - » Fastening your safety belt.
  - » Starting the engine.
  - » Engaging the transmission.
  - » Releasing the parking brake.
  - » Turning on your left turn signal.
  - » Checking all mirrors again.
  - » Allowing congested traffic to disperse.
- When it is safe, pull away from the unloading area.

#### 10.2.5 SPECIAL DANGERS OF LOADING AND UNLOADING

**Dropped or Forgotten Objects.** Always focus on students as they approach the bus and watch for any who disappear from sight.

Students may drop an object near the bus during loading and unloading. Stopping to pick up the object, or returning to pick it up, may cause the student to disappear from the driver's sight at a very dangerous moment.

Students should be told to leave any dropped object and move to a point of safety out of the danger zones and attempt to get the driver's attention before trying to retrieve the object.

**Handrail Hang-ups.** Students have been injured or killed when clothing, accessories or even parts of their body get caught in the handrail or door as they exited the bus. You should closely observe all students exiting the bus to confirm they are in a safe location prior to moving the bus.

#### 10.2.6 POST-TRIP INSPECTION

When your route or school activity trip is finished, you should conduct a post-trip inspection of the bus by walking through and around the bus looking for the following:

- Articles left on the bus.
- Sleeping students.
- Open windows and doors.
- Mechanical/operational problems with the bus, with special attention to items that are unique to school buses – mirror systems, flashing warning lamps and stop signal arms.
- Damage or vandalism.

Any problems or special situations should be reported immediately to your supervisor or school authorities.

#### *Transporting Persons with Disabilities*

Transporting persons with special needs or physical disabilities requires patience and understanding. Follow your company guidelines. Some general rules are:

- When raising or lowering persons on the power ramp, hold onto the wheel chair.
- Secure the wheel first and then the occupant.
- Know an individual's special health or behavioral problems.
- Practice vehicle evacuation.

Establish an understanding with the parents, guardians or other caregivers on their involvement in loading and unloading the person at home. Work with the parents and school officials to determine the location for pick up and discharge. Do not leave your bus unattended to assist a person with special needs unless the engine is shut off, parking brake is set and the keys are removed from the ignition.

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### 10.3 Emergency Exit and Evacuation

An emergency situation can happen to anyone, anytime, anywhere. It could be a crash, a stalled school bus on a railroad-highway crossing or in a high-speed intersection, an electrical fire in the engine compartment, a medical

emergency to a student on the school bus, etc. Knowing what to do in an emergency before, during and after an evacuation can mean the difference between life and death.

### 10.3.1 PLANNING FOR EMERGENCIES

**Determine Need to Evacuate Bus.** The first and most important consideration is for you to recognize hazard. If time permits, school bus drivers should contact their dispatcher to explain the situation before making a decision to evacuate the school bus.

As a general rule, student safety and control is best maintained by keeping students on the bus during and emergency and/or impending crisis situation, if doing so does not expose them to unnecessary risk or injury. Remember, the decision to evacuate the bus must be a timely one.

A decision to evacuate should include consideration of the following conditions:

- Is there a fire or danger of fire?
- Is there a smell of raw or leaking fuel?
- Is there a chance the bus could be hit by other vehicles?
- Is the bus in the path of a sighted tornado or rising waters?
- Are there downed power lines?
- Would removing students expose them to speeding traffic, severe weather, or a dangerous environment such as downed power lines?
- Would moving students complicate injuries such as neck and back injuries and fractures?
- Is there a hazardous spill involved? Sometimes, it may be safer to remain on the bus and not come in contact with the material.

**Mandatory Evacuations.** The driver must evacuate the bus when:

- The bus is on fire or there is a threat of a fire.
- The bus is stalled on or adjacent to a railroad highway crossing.
- The position of the bus may change and increase the danger.
- There is an imminent danger of collision.
- There is a need to quickly evacuate because of a hazardous materials spill.

### 10.3.2 EVACUATION PROCEDURES

**Be Prepared and Plan Ahead.** Each school bus driver should practice evacuation procedures early in the school year and conduct periodic reviews of the procedure. Organize a safety patrol on each bus to assist in school bus evacuation and other emergencies.

Use the school grounds to conduct an evacuation drill using the front door only. To practice a drill using the service door and emergency exit, find an area where there is no traffic.

When possible, assign two responsible, older student assistants to each emergency exit. Teach them how to assist the other students off the bus. Assign another student assistant to lead the students to a safe place after evacuation. However, you must recognize that there may not be older,

responsible students on the bus at the time of an emergency. Therefore, emergency evacuation procedures must be explained to all students. This includes knowing how to operate of the various emergency exits, and the importance of listening to and following all instructions given by you.

Some tips to determine a safe place:

- A safe place for the students will be at least 100 feet off the road in the direction of oncoming traffic. This will keep them from being hit by debris if another vehicle collides with the bus.
- Lead the students upwind of the bus if fire is present.
- Lead the students as far away from railroad tracks as possible and in the direction of any oncoming train.
- Lead the students upwind of the bus at least 300 feet if there is a risk from spilled hazardous materials.
- If the bus is in the direct path of a sighted tornado and evacuation is ordered, escort the students to a nearby ditch or culvert if shelter in a building is not readily available. Direct them to lie face down with their hands covering their head. They should be far enough away so the bus cannot topple on them. Avoid areas that are subject to flash floods.

**General Procedures.** Determine if evacuation is in the best interest of safety.

- Determine the best type of evacuation:
  - » Front, rear or side door evacuation, or some combination of doors.
  - » Roof or window evacuation.
- Secure the bus by:
  - » Placing the transmission in Park, or if there is no shift point, put it in Neutral.
  - » Setting parking brakes.
  - » Shutting off engine.
  - » Removing ignition key.
  - » Activating hazard warning lights.
- If time allows, notify your dispatch office of the evacuation location, conditions, and type of assistance needed.
- Dangle radio microphone or telephone out of the driver's window for later use, if operable.
- If no radio, or radio is inoperable, dispatch a passing motorist or area resident to call for help. As a last resort, dispatch two older, responsible students to go for help.
- Order the evacuation.
- Evacuate the students from the bus.
- Direct a student assistant to lead the students to the nearest safe place.
- Walk through the bus to ensure no students remain on the bus. Retrieve emergency equipment.
- Join the waiting students. Account for all students and check for their safety.
- Protect the scene. Set out emergency warning devices as necessary and appropriate.
- Prepare information for emergency responders.

**Note:** Do not move a student you believe may have suffered a neck or spinal injury unless his or her life is in immediate danger. Special procedures must be used to move neck and/or spinal injury victims to prevent further injury.

### Types of Evacuation

In an evacuation, calm the students and give them instructions. If the driver is unable to conduct the evacuation because of injury, the school patrol members should take over.

- The front door evacuation procedure is:
  - » Students in the left front seat exit first followed by those in the right front seat.
  - » Continue alternating from the front to the rear of the bus until all students are off.
- The rear door evacuation procedure is:
  - » Assign two patrol members or older children to exit first and help the others out of the door.
  - » Students in the left rear seat exit first followed by those in the right rear seat.
  - » Continue alternating until all students are off the bus.
  - » If possible, use both doors for evacuation. Start at both doors alternating as above. Have the students assemble in one location immediately after the evacuation. Do not allow students to cross the road or re-enter the bus. Always account for all of the students.

### Handling Emergencies

School bus drivers should prepare for unexpected situations. Carry emergency cards listing telephone numbers for the sheriff, local police, school officials, ambulance service and garage.

If possible, do not leave the children unattended. Give the card to two responsible children who will go for help. Select and train several students for this responsibility. Two way radios and cellular phones are valuable in emergency situations.

Following a crash or breakdown, the school bus driver must decide whether to evacuate the students. They may be safer on the bus. If evacuation is necessary, select a safe place and supervise the unloading.

It is extremely important that the bus is visible in the event of a breakdown or crash. To maximize your visibility:

- Move off roadway if possible.
- Activate the hazard lights and after dark, turn on the parking lights, clearance lights and strobe light (if equipped).
- Set out traffic warning devices.

Then account for all of your students and administer necessary first aid. Report school bus crashes immediately to a local law enforcement agency.

### Fire

In the event of a fire from a collision or an equipment malfunction, follow this procedure:

- Evacuate the students.
- Set out traffic warning devices.
- Send two responsible children for help with the emergency cards.

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## 10.4 Railroad-Highway Crossings

Note: In Wisconsin, all school buses, loaded or empty, must stop at railroad crossings unless the tracks are posted "exempt" or "abandoned."

### 10.4.1 TYPES OF CROSSINGS

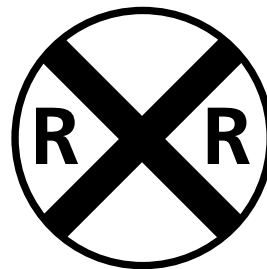
**Passive Crossings.** This type of crossing does not have any type of traffic control device. You must stop at these crossings and follow proper procedures. However, the decision to proceed rests entirely in your hands. Passive crossings require you to recognize the crossing, search for any train using the tracks and decide if there is sufficient clear space to cross safely. Passive crossings have yellow circular advance warning signs, pavement markings and crossbucks to assist you in recognizing a crossing.

**Active Crossings.** This type of crossing has a traffic control device installed at the crossing to regulate traffic at the crossing. These active devices can include flashing red lights, with or without bells and flashing red lights with bells and gates.

### 10.4.2 WARNING SIGNS AND DEVICES

**Advance Warning Signs.** The round, black-on-yellow warning sign is placed ahead of a public railroad-highway crossing. The advance warning sign tells you to slow down, look and listen for the train, and be prepared to stop at the tracks if a train is coming. See Figure 10.5.

Figure 10-5: Round Yellow Warning Sign

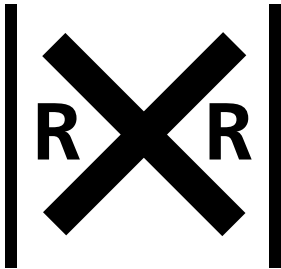




**Pavement Markings.** Pavement markings mean the same as the advance warning sign. They consist of an “X” with the letters “RR” and a no-passing marking on two-lane roads.

There is also a no passing zone sign on two-lane roads. There may be a white stop line painted on the pavement before the railroad tracks. The front of the school bus must remain behind this line while stopped at the crossing. See Figure 10.6.

*Figure 10-6: Pavement Markings*



**Crossbuck Signs.** This sign marks the crossing. It requires you to yield the right-of-way to the train. If there is no white line painted on the pavement, you must stop the bus before the crossbuck sign. When the road crosses over more than one set of tracks, a sign below the crossbuck indicates the number of tracks. See Figure 10-7.

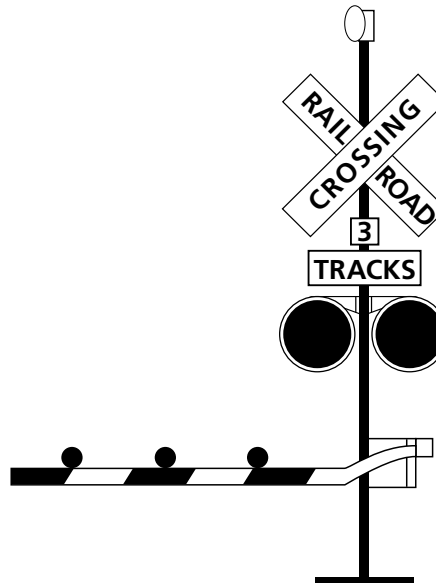
*Figure 10-7: Multiple Tracks*



**Flashing Red Light Signals.** At many highway-rail grade crossings, the crossbuck sign has flashing red lights and bells. When the lights begin to flash, stop! A train is approaching. You are required to yield the right-of-way to the train. If there is more than one track, make sure all tracks are clear before crossing. See Figure 10-8.

**Gates.** Many railroad-highway crossings have gates with flashing red lights and bells. Stop when the lights begin to flash and before the gate lowers across the road lane. Remain stopped until the gates go up and the lights have stopped flashing. Proceed when it is safe. If the gate stays down after the train passes, do not drive around the gate. Instead, contact your dispatcher. See Figure 10-8.

*Figure 10-8: Gates/Lights*



### 10.4.3 RECOMMENDED PROCEDURES

Each state has laws and regulations governing how school buses must operate at railroad-highway crossings. It is important for you to understand and obey these state laws and regulations. In general, school buses must stop at all crossings and ensure it is safe before proceeding across the tracks. The specific procedures required in each state vary.

A school bus is one of the safest vehicles on the highway. However, a school bus does not have the slightest edge when involved in a crash with a train. Because of a train's size and weight it cannot stop quickly. An emergency escape route does not exist for a train. You can prevent school bus/train crashes by following these recommended procedures.

**Railroad Crossings.** All school buses, loaded or empty, must stop at railroad crossings unless the tracks are posted "exempt" or "abandoned." The procedure for stopping at railroad crossings is:

- Approaching the crossing:
  - » Check traffic before slowing.
  - » Slow down, including shifting to a lower gear in a manual transmission bus, and test your brakes.
  - » Activate yellow hazard lights approximately 200 feet but at least 100 feet before the crossing. Make sure intentions are known.
- At the crossing:
  - » Stop in the farthest right driving lane, no closer than 15 feet and no farther than 50 feet from the nearest rail where you have the best view of the tracks. Whenever an auxiliary lane is provided for stopping at a railroad, operators of vehicles required to stop shall use such lanes for stopping s.346.45(2), Wisconsin Statutes.
  - » Place the transmission in Park, or if there is no Park shift point, in Neutral and press down on the service brakes to prevent the bus from moving.
  - » Turn off all radios and noisy equipment and silence the passengers.
  - » Completely open the service door and driver's side window. Look and listen carefully for an approaching train.
  - » Look left, then right.
- Crossing the track:
  - » Check the crossing signals again before proceeding. Never rely on railroad mechanical flashing lights.
  - » Check mirrors for traffic behind the bus.
  - » Cross the tracks in a low gear. Do not change gears while crossing.
  - » At a multiple track crossing, stop only before the first set of tracks. When you are sure no train is approaching on any track, proceed across all of the tracks until you have completely cleared them. Only stop between tracks when there is more than 15 feet between the front and rear of the bus and any tracks.
  - » The service door shall remain open until the front wheels of the bus have cleared the first set of tracks for each required stop. The service door shall be closed before shifting.

- » If the gate comes down after you have started across, drive through it even if it means you will break the gate.

### 10.4.4 SPECIAL SITUATIONS

**Bus stalls or is trapped on the tracks.** If your bus stalls or is trapped on the tracks, get everyone out of the bus and off the tracks immediately! Move everyone far away from the bus at an angle, which is both away from the tracks and toward the train.

**Police officer at the crossing.** If a police officer is at the crossing, obey directions. If there is no police officer, and you believe the signal is malfunctioning, call your dispatcher to report the situation and ask for instructions on how to proceed.

**Obstructed view of tracks.** Plan your route so it provides maximum sight distance at highway-rail grade crossings. Do not attempt to cross the tracks unless you can see far enough down the track to know for certain that no trains are approaching. Passive crossings are those that do not have any type of traffic control device. Be especially careful at passive crossings. Even if there are active railroad signals that indicate the tracks are clear, you must look and listen to be sure it is safe to proceed.

**Containment or storage areas.** If it won't fit, don't commit! Know the length of your bus and the size of the containment area at highway-rail crossings on the school bus route, as well as any crossing you encounter in the course of a school activity trip. When approaching a crossing with a signal or stop sign on the opposite side, pay attention to the amount of room there. Be certain the bus has enough containment or storage area to completely clear the railroad tracks on the other side if there is a need to stop. As a general rule, add 15 feet to the length of the school bus to determine an acceptable amount of containment or storage area.

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## 10.5 Student Management

### 10.5.1 DON'T DEAL WITH ON-BUS PROBLEMS WHEN LOADING AND UNLOADING

Getting children to accept part of the responsibility for their safety on the bus is a challenging task school bus drivers face. Establishing a positive relationship between the driver and the passengers helps gain this cooperation.

In order to get students to and from school safely and on time, you need to be able to concentrate on the driving task.

Loading and unloading requires all your concentration. Don't take your eyes off what is happening outside the bus.

If there is a behavior problem on the bus, wait until the students unloading are safely off the bus and have moved away. If necessary, pull the bus over to handle the problem.

### 10.5.2 HANDLING SERIOUS PROBLEMS

Tips on handling serious problems:

- Follow your school's procedures for discipline or refusal of the right to ride the bus.
- Stop the bus. Park in a safe location off the road (perhaps a parking lot or a driveway.)

- Secure the bus. Take the ignition key with you if you leave your seat.
- Stand up and speak respectfully to the offender or offenders. Speak in a courteous manner but with a firm voice. Remind the offender of the expected behavior. Do not show anger, but do show that you mean business.
- If a change of seating is needed, request that the student move to a seat near you.
- Never put a student off the bus except at school or at his or her designated school bus stop. If you feel that the offense is serious enough that you cannot safely drive the bus, call for a school administrator or the police to come and remove the student if appropriate. Always follow your state or local procedures for requesting assistance.

Maintaining proper discipline on the school bus reduces distractions and allows the driver to give full attention to driving. Students' behavior must not distract the driver or interfere with safety or other passengers.

Local school boards develop the rules for student behavior. Copies of the rules should be distributed to students and their parents. Rule enforcement is a responsibility shared by the school bus driver, school officials and parents.

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## 10.6 Antilock Braking Systems

### 10.6.1 VEHICLES REQUIRED TO HAVE ANTILOCK BRAKING SYSTEMS (ABS)

The Department of Transportation requires that antilock braking systems be on:

- Air brakes vehicles, (trucks, buses, trailers and converter dollies) built on or after March 1, 1998.
- Hydraulically braked trucks and buses with a gross vehicle weight rating of 10,000 lbs. or more built on or after March 1, 1999.

Many buses built before these dates have been voluntarily equipped with ABS.

Your school bus will have a yellow ABS malfunction lamp on the instrument panel if it is equipped with ABS.

### 10.6.2 HOW ABS HELPS YOU

When you brake hard on slippery surfaces in a vehicle without ABS, the vehicle's wheels may lock up. When your steering wheels lock up, you lose steering control. When your other wheels lock up, you may skid or even spin the vehicle.

ABS helps you avoid wheel lock up and maintain control. You may or may not be able to stop faster with ABS, but you should be able to steer around an obstacle while braking, and avoid skids caused by over-braking.

### 10.6.3 BRAKING WITH ABS

When you drive a vehicle with ABS, you should brake as you always have. In other words:

- Use only the braking force necessary to stop safely and stay in control.
- Brake the same way, regardless of whether you have ABS on your bus. However, in emergency braking, do not pump the brakes on a bus with ABS.
- As you slow down, monitor your bus and back off the brakes (if it is safe to do so) to stay in control.

### 10.6.4 BRAKING IF ABS IS NOT WORKING

Without ABS, you still have normal brake functions. Drive and brake as you always have.

Vehicles with ABS have yellow malfunction lamps to tell you if something is not working. The yellow ABS malfunction lamp is on the bus's instrument panel.

As a system check on newer vehicles, the malfunction lamp comes on at start-up for a bulb check and then goes out quickly. On older systems, the lamp could stay on until you are driving over 5 mph.

If the lamp stays on after the bulb check, or goes on once you are under way, you may have lost ABS control at one or more wheels.

Remember, if your ABS malfunctions, you still have regular brakes. Drive normally, but get the system serviced soon.

### 10.6.5 SAFETY REMINDERS

- ABS will not allow you to drive faster, follow more closely or drive less carefully.
- ABS will not prevent power or turning skids—ABS should prevent brake-induced skids but not those caused by spinning the drive wheels or going too fast in a turn.
- ABS will not necessarily shorten stopping distance. ABS will help maintain vehicle control but not always shorten stopping distance.
- ABS will not increase or decrease ultimate stopping power. ABS is an "add-on" to your normal brakes, not a replacement for them.
- ABS will not change the way you normally brake. Under normal brake conditions, your vehicle will stop as it always stops. ABS only comes into play when a wheel would normally have locked up because of over-braking.
- ABS will not compensate for bad brakes or poor brake maintenance.
- Remember: The best vehicle safety feature is still a safe driver.
- Remember: Drive so you never need to use your ABS.
- Remember: If you need it, ABS could help to prevent a serious crash.

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## 10.7 Special Safety Considerations

### 10.7.1 STROBE LIGHTS

The flashing white strobe light increases visibility in all types of weather. Its use does not require motorists to stop. It is required equipment on buses initially registered on or after Oct. 1, 1998; optional on buses registered before that date.

If your bus is so equipped, the overhead strobe light should be used when you have limited visibility. This means you cannot easily see around you – in front, behind, or beside the school bus. Your visibility could be only slightly limited or it could be so bad you can see nothing at all.

In all instances, understand and obey your state or local regulations concerning the use of these lights. See Wisconsin Administrative Code, Chapter Trans 300 for additional information.

### 10.7.2 DRIVING IN HIGH WINDS

Strong winds affect the handling of a school bus! The side of a school bus acts like a sail on a sailboat. Strong winds can push the school bus sideways. They can even move the school bus off the road or, in extreme conditions, tip it over.

If you are caught in strong winds:

- Keep a strong grip on the steering wheel. Try to anticipate gusts.
- You should slow down to lessen the effect of the wind, or pull off the roadway and wait.
- Contact your dispatcher to get more information on how to proceed.

### 10.7.3 BACKING

Backing a school bus is strongly discouraged. You should back your bus only when you have no other safe way to move the vehicle. You should never back a school bus when students are outside the bus. Backing is dangerous and increases your risk of a collision. If you have no choice and you must back your bus, follow these procedures:

- Post a lookout, preferably inside the school bus, looking out the rear window. The purpose of the lookout is to warn you about obstacles, approaching persons and other vehicles. The lookout should not give directions on how to back the bus.
- Signal for quiet on the bus.
- Constantly check all mirrors and rear windows.
- Activate hazard warning lights.
- Back slowly and smoothly.
- If no lookout is available:
  - » Set the parking brake.
  - » Turn off the motor and take the keys with you.
  - » Walk to the rear of the bus to determine whether the way is clear.
- If you must back up at a student pick-up point, be sure to pick up students before backing and watch for late comers at all times.
- Be sure all students are in the bus before backing.

If you must back up at a student drop-off point, be sure to unload students **after** backing. When discharging students, follow these general guidelines before backing onto the highway or backing into a driveway:

- Drive past the driveway to allow enough space to maneuver.
- Check traffic carefully. Allow traffic to pass.
- Use hazard warning lights.
- Back into drive.
- Discharge students after backing.
- Check traffic and yield to oncoming vehicles.
- Proceed out of the drive.

### Turning Around

Like backing, turning around in a driveway is done only when necessary. Plan routes to reduce the need for this maneuver.

If you must turn around in a driveway, there are two methods. The driver is responsible for making the choice after evaluating the conditions. When pulling into a driveway:

- Signal the turn.
- Check traffic and yield to oncoming vehicles.
- Pull into the drive until the bus is straight.
- Pick up students before backing.
- Post a lookout.
- Check traffic carefully.
- Use hazard warning lights.
- Back slowly and smoothly.
- Turn off hazard warning lights and proceed.

### 10.7.4 TAIL SWING

A school bus can have up to a three-foot tail swing. You need to check your mirrors before and during any turning movements to monitor the tail swing.

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### Test Your Knowledge

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1. Define the danger zone. How far does the danger zone extend around the bus?
  2. What should you be able to see if the outside flat mirrors are adjusted properly? The outside convex mirrors? The crossover mirrors?
  3. You are loading students along the route. When should you activate your alternately flashing warning lamps?
  4. You are unloading students along your route. Where should students walk to after exiting the bus?
  5. After unloading at school, why should you walk through the bus?
  6. What position should students be in front of the bus before they cross the roadway?
  7. Under what conditions must you evacuate the bus?
  8. How far from the nearest rail should you stop at a highway-rail crossing?
  9. What is a passive highway-rail crossing? Why should you be extra cautious at this type of crossing?
  10. How should you use your brakes if your vehicle is equipped with antilock brakes (ABS)?
- 

These questions may be on your test. If you are unable to answer them all, re-read Section 10.

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## Pre-Trip Inspection for School Bus

### ***Pre-Trip Inspection***

Each driver is required to make, and may be held accountable for, a pre-trip inspection of the bus to determine whether or not the vehicle is safe to operate on the highway. Review Section 11 of this manual for detailed information on pre-trip inspection. Section 11.3 provides specific school bus inspection procedures.

You, as a driver, will be evaluated by driver licensing personnel on the inspection of the vehicle as part of the examination for original or renewal school bus ("S") endorsement. You may use the "Vehicle Inspection Memory Aid" in this manual as a guide when performing the pre-trip inspection.

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**Note:** Third Party (non-DMV) testers/examiners are authorized to administer CDL skills tests. See inside front cover for the web address of Third Party tester information.

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**Note:** Studded snow tires are allowed on school buses between November 15th and April 1st. s.347.45(2)(c)2, *Wisconsin Statutes*.

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- 11. Pre-Trip Vehicle Inspection Test**
- 12. Basic Vehicle Control Skills Test**
- 13. On Road Driving Test**

This part is for drivers who need to take a skills test.

# Section 11: Pre-Trip Vehicle Inspection Test

This section covers:

- Internal Inspection
- External Inspection

During the pre-trip inspection, you must show that the vehicle is safe to drive. You will have to walk around the vehicle and point to or touch each item and explain to the examiner what you are checking and why. You will NOT have to crawl under the the hood or under the vehicle.

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## 11.1 All Vehicles

Study the following vehicle parts for the type of vehicle you will be using during the CDL skills tests. You should be able to identify each part and tell the examiner what you are looking for or inspecting.

### 11.1.1 ENGINE COMPARTMENT (ENGINE OFF)

#### Leaks/Hoses

- Look for puddles on the ground.
- Look for dripping fluids on underside of engine and transmission.
- Inspect hoses for condition and leaks.

#### Oil Level

- Indicate where dipstick is located.
- See that oil level is within safe operating range. Level must be above refill mark.

#### Coolant Level

- Inspect reservoir sight glass, or.
- (If engine is not hot), remove radiator cap and check for visible coolant level.

#### Power Steering Fluid

- Indicate where power steering fluid dipstick is located.
- Check for adequate power steering fluid level. Level must be above refill mark.

#### Engine Compartment Belts

- Check the following belts for snugness (up to 3/4 inch play at center of belt), cracks or frays.
  - » Power steering belt.
  - » Water pump belt.
  - » Alternator belt.
  - » Air compressor belt.

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**Note:** If any of the components listed above are not belt driven, you must:

- » Tell the examiner which component(s) are not belt driven.
- » Make sure component(s) are operating properly, are not damaged or leaking and are **mounted securely**.

### 11.1.2 CAB CHECK/ENGINE START

#### Safe Start

- Depress clutch
- Place gearshift lever in neutral (or park, for automatic transmissions).
- Start engine, then release clutch slowly.

#### Oil Pressure Gauge

- Make sure oil pressure gauge is working.
- Check that pressure gauge shows increasing or normal oil pressure or that the warning light goes off.
- If equipped, oil temperature gauge should begin a gradual rise to the normal operating range.

#### Temperature Gauge

- Make sure the temperature gauge is working.
- Temperature should begin to climb to the normal operating range or temperature light should be off.

#### Air Gauge

- Make sure the air gauge is working properly.
- Build air pressure to governor cut-out, roughly 120-140 psi.

#### Ammeter/Voltmeter

- Check that gauges show alternator and/or generator is charging or that warning light is off.

## **WISCONSIN**

#### Speedometer

- The vehicle must have a functioning speedometer for the CDL Skills Test.

#### Mirrors and Windshield

- Mirrors should be clean and adjusted properly from the **inside**.
- Windshield should be clean with no illegal stickers, obstructions or damage to the glass.

#### Emergency Equipment

- Check for spare electrical fuses.
- Check for three red reflective triangles, 6 fuses or 3 liquid burning flares.
- Check for a properly charged and rated fire extinguisher.

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**Note:** If the vehicle is not equipped with electrical fuses, you must mention this to the examiner.

#### Wipers/Washers

- Check that wiper arms and blades are secure, not damaged and operate smoothly.
- If equipped, windshield washers must operate correctly.

Lights/Reflectors/Reflector Tape Condition (Sides and Rear)

- Test that dash indicators work when corresponding lights are turned on:
  - » Left turn signal.
  - » Right turn signal.
  - » Four-way emergency flashers.
  - » High beam headlight.
  - » Anti-lock Braking System (ABS) indicator.
- Check that all external lights and reflective equipment are clean and functional. Light and reflector checks include:
  - » Clearance lights (red on rear, amber elsewhere).
  - » Headlights (high and low beams).
  - » Taillights.
  - » Backing lights.
  - » Turn signals.
  - » Four-way flashers.
  - » Brake lights.
  - » Red reflectors (on rear) and amber reflectors (elsewhere).
  - » Reflector tape condition.

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**Note:** Checks of brake, turn signal and four-way flasher functions must be done separately. You may ask the examiner for help checking lights.

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Horn

- Check that air horn and/or electric horn work.

Heater/Defroster

- Test that the heater and defroster work.

Parking Brake Check

- With the parking brake engaged (trailer brakes released on combination vehicles), check that the parking brake will hold vehicle by gently trying to pull forward with parking brake on.
- With the parking brake released and the trailer parking brake engaged (combination vehicles only), check that the trailer parking brake will hold vehicle by gently trying to pull forward with the trailer parking brake on.

Hydraulic Brake Check

- Pump the brake pedal 3 times, then hold it down for 5 seconds. The brake pedal should not move (depress) during the 5 seconds.
- If equipped with a hydraulic brake reserve (back-up) system, with the key off, depress the brake pedal and listen for the sound of the reserve system electric motor.
- Check that the warning buzzer or light is off.

Air Brake Check (1-2-3 LAB Test) air brake equipped vehicles only

Failure to perform all three components of the air brake check correctly will result in an automatic failure of the Vehicle Pre-Trip Inspection Test.

Air brake safety devices vary. However, this procedure is designed to make sure any safety device operates correctly

as air pressure drops from normal to a low-air condition. For safety purposes, in areas where an incline is present, you will use wheel chocks during the air brake check. The proper procedures for inspecting the air brake system are as follows:

**(1) Leaks**

With the air pressure built up to governor cutoff (120 – 140 psi), shut off the engine, chock your wheels if necessary, release the parking brake (all vehicles), and the tractor protection valve (combination vehicle) and fully apply the foot brake. Hold the foot brake for one minute. Check the air gauge to see if the air pressure drops more than 3 pounds in 1 minute (single vehicle) or 4 pounds in 1 minute (combination vehicle).

**(2) Alarm**

Without re-starting the engine, turn electrical power to the “on” or “battery charge” position. Begin fanning off the air pressure by rapidly applying and releasing the foot brake. Low air warning devices (buzzer, light, flag) should activate before air pressure drops below 60 psi or level specified by the manufacturer

**(3) Button(s)**

Continue to fan off the air pressure. At approximately 40 psi on a tractor-trailer combination vehicle (or level specified by the manufacturer), the tractor protection valve and parking brake valve should close (pop out). On other combination vehicle types and single vehicle types, the parking brake valve should close (pop out).

**Service Brakes Check.** You will be required to check the application of air or hydraulic service brakes. This procedure is designed to determine that the brakes are working correctly and that the vehicle does not pull to one side or the other.

Pull forward at 5 mph, apply the service brake and stop. Check to see that the vehicle does not pull to either side and that it stops when brake is applied.

This test may show you problems which you otherwise wouldn't know about until you needed the brakes on the road.

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**Note:** The driver must locate and identify all air, brake components, perform the Air Brake 1-2-3 LAB (leaks, alarm and buttons) correctly and check the service (foot) brake operation to pass the pre-trip inspection.

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Safety Belt

- Check that the safety belt is securely mounted, adjusts, latches properly and is not ripped or frayed.

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## 11.2 External Inspection (All Vehicles)

### 11.2.1 STEERING

Steering Box/Hoses

- Check that the steering box is securely mounted and not leaking. Look for any missing nuts, bolts and cotter keys.
- Check for power steering fluid leaks or damage to power steering hoses.



### Steering Linkage

- See that connecting links, arms and rods **from the steering box to the wheel** are not worn or cracked.
- Check that joints and sockets are not worn or loose and that there are no missing nuts, bolts or cotter keys.

## 11.2.2 SUSPENSION

### Springs/Air/Torque

- Look for missing, shifted, cracked or broken leaf springs.
- Look for broken or distorted coil springs.
- If the vehicle is equipped with torsion bars, torque arms or other types of suspension components, check that they are not damaged and are mounted securely.
- Air ride suspension should be checked for damage and leaks.

### Mounts

- Look for cracked or broken spring hangers, missing or damaged bushings and broken, loose or missing bolts, U-bolts or other axle mounting parts. (The mounts should be checked at each point where they are secured to the vehicle frame and axle(s). This includes mounts used for air ride systems.

### Shock Absorbers

- See that shock absorbers are secure and that there are no leaks.

.....  
**Note:** Be prepared to perform the same suspension components inspection on every axle (power unit and trailer, if equipped).  
.....

## 11.2.3 BRAKES

### Slack Adjustors and Pushrods

- Look for broken, loose or missing parts.
- For manual slack adjustors, the brake pushrod should not move more than one inch (with the brakes released) when pulled by hand.

### Brake Chambers

- See that brake chambers are not leaking, cracked or dented and are mounted securely.

### Brake Hoses/Lines

- Look for cracked, worn or leaking hoses, lines and couplings.

### Drum Brake or Rotor

- Check for cracks, dents or holes. Also check for loose or missing bolts.
- Check for contaminants such as debris, oil or grease.
- Brake linings or pads (where visible) should not be worn dangerously thin.

### Brake Linings

- On some brake drums, there are openings where the brake linings can be seen from outside the drum. For this type of drum, check that a visible amount of brake lining is showing.

.....  
**Note:** Be prepared to perform the same brake components inspection on every axle (power unit and trailer, if equipped).  
.....

## 11.2.4 WHEELS

### Rims

- Check for damaged or bent rims. Rims cannot have welding repairs.

### Tires

- The following items must be inspected on every tire:
  - » **Tread depth:** Check for minimum tread depth (4/32 on steering axle tires, 2/32 on all other tires).
  - » **Tire condition:** Check that tread is evenly worn and look for cuts or other damage to tread or sidewalls. Also, make sure valve caps and stems are not missing, broken or damaged.
  - » **Tire inflation:** Check for proper inflation by using a tire gauge. Note: You will not get credit if you simply kick the tires to check for proper inflation.

### Hub Oil Seals/Axle Seals

- See that hub oil/grease seals and axle seals are not leaking and, if wheel has a sight glass, oil level is adequate.

### Lug Nuts

- Check that all lug nuts are present, free of cracks and distortions and show no signs of looseness such as rust trails or shiny threads.
- Make sure all bolt holes are not cracked or distorted.

### Spacers or Bud Spacing

- If equipped, check that spacers are not bent, damaged or rusted through.
- Spacers should be evenly centered, with the dual wheels and tires evenly separated.

.....  
**Note:** Be prepared to perform the same wheel inspection on every axle (power unit and trailer, if equipped).  
.....

## 11.2.5 SIDE OF VEHICLE

### Door(s)/Mirror(s)

- Check that door(s) are not damaged and that they open and close properly from the **outside**.
- Hinges should be secure with seals intact.
- Check that mirror(s) and mirror brackets are not damaged and are mounted securely with no loose fittings.

### Fuel Tank

- Check that tank(s) are secure, cap(s) are tight and that there are no leaks from tank(s) or lines.

#### Battery/Box

- Wherever located, see that battery(s) are secure, connections are tight and cell caps are present.
- Battery connections should not show signs of excessive corrosion.
- Battery box and cover or door must be secure.

#### Drive Shaft

- See that drive shaft is not bent or cracked.
- Couplings should be secure and free of foreign objects.

#### Exhaust System

- Check system for damage and signs of leaks such as rust or carbon soot.
- System should be connected tightly and mounted securely.

#### Frame

- Look for cracks, broken welds, holes or other damage to the longitudinal frame members, cross members, box and floor.

### **11.2.6 REAR OF VEHICLE**

#### Splash Guards

- If equipped, check that splash guards or mud flaps are not damaged and are mounted securely.

#### Doors/Ties/Lifts

- Check that doors and hinges are not damaged and that they open, close and latch properly from the **outside**, if equipped.
- Ties, straps, chains and binders must also be secure.
- If equipped with a cargo lift, look for leaking, damaged or missing parts and explain how it should be checked for correct operation.
- Lift must be fully retracted and latched securely.

### **11.2.7 TRACTOR/COUPLING**

#### Air/Electric Lines

- Listen for air leaks. Check that air hoses and electrical lines are not cut, chafed, spliced or worn (steel braid should not show through).
- Make sure air and electrical lines are not tangled, pinched or dragging against tractor parts.

#### Catwalk/Steps

- Make sure the catwalk is solid, clear of objects and securely bolted to tractor frame.
- Check that steps leading to the cab entry and catwalk (if equipped) are solid, clear of objects and securely bolted to tractor frame.

#### Mounting Bolts

- Look for loose or missing mounting brackets, clamps, bolts or nuts. Both the fifth wheel and the slide mounting must be solidly attached.
- On other types of coupling systems (i.e., ball hitch, pintle hook), inspect all coupling components and mounting brackets for missing or broken parts.

#### Hitch Release Lever

- Check to see that the hitch release lever is in place and secure.

#### Locking Jaws

- Look into fifth wheel gap and check that locking jaws are fully closed around the kingpin.
- On other types of coupling systems (i.e., ball hitch, pintle hook, etc.), inspect the locking mechanism for missing or broken parts and make sure it is locked securely. If present, safety cables or chains must be secure and free of kinks and excessive slack.

#### 5th Wheel Skid Plate

- Check for proper lubrication and that 5th wheel skid plate is securely mounted to the platform and that all bolts and pins are secure and not missing.

#### Platform (fifth wheel)

- Check for cracks or breaks in the platform structure which supports the fifth wheel skid plate.

#### Release Arm (fifth wheel)

- If equipped, make sure the release arm is in the engaged position and the safety latch is in place.

#### Kingpin/Apron/Gap

- Check that the kingpin is not bent.
- Make sure the visible part of the apron is not bent, cracked or broken.
- Check that the trailer is laying flat on the fifth wheel skid plate (no gap).

#### Locking Pins (fifth wheel)

- If equipped, look for loose or missing pins in the slide mechanism of the sliding fifth wheel. If air powered, check for leaks.
- Make sure locking pins are fully engaged.
- Check that the fifth wheel is positioned properly so the tractor frame will clear the landing gear during turns.

#### Sliding Pintle

- Check that the sliding pintle is secured with no loose or missing nuts or bolts and cotter pin is in place.

#### Tongue or Draw-bar

- Check that the tongue/draw-bar is not bent or twisted and checks for broken welds and stress cracks.
- Check that the tongue/draw-bar is not worn excessively.

#### Tongue Storage Area

- Check that the storage area is solid and secured to the tongue.
- Check that cargo in the storage area i.e. chains, binders, etc., is secure.

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## **11.3 School Bus Only**

#### Emergency Equipment

In addition to checking for spare electrical fuses (if equipped), three red reflective triangles, and a properly charged and rated fire extinguisher, school bus drivers must also inspect the following emergency equipment:

- Emergency Kit (16 item first aid kit – Wisconsin).
- Body Fluid Cleanup Kit

### Lighting Indicators

- In addition to checking the lighting indicators listed in Section 10.2 of this manual, school bus drivers must also check the following lighting indicators (internal panel lights):
  - » Alternately flashing amber lights indicator, if equipped.
  - » Alternately flashing red lights indicator.
  - » Strobe light indicator, if equipped.

### Lights/Reflectors

- In addition to checking the lights and reflective devices listed in Section 10.2 of this manual, school bus drivers must also check the following (external) lights and reflectors:
  - » Strobe light, if equipped.
  - » Stop arm light, if equipped.
  - » Alternately flashing amber lights, if equipped.
  - » Alternately flashing red lights.

### Student Mirrors/Student Crossing Gate

- In addition to checking the external mirrors, school bus drivers must also check the internal and external mirrors used for observing students:
  - » Check for proper adjustment.
  - » Checks that all internal and external mirrors and mirror brackets are not damaged and are mounted securely with no loose fittings.
  - » Checks that visibility is not impaired due to dirty mirrors.
  - » If equipped, check that the student crossing is mounted securely and opens/closes smoothly.

### Stop Arm

- If equipped, check the stop arm to see that it is mounted securely to the frame of the vehicle.
- Also, check for loose fittings and damage.

### Passenger Entry/Lift

- Check that the entry door is not damaged, operates smoothly and closes securely from the inside.
- Hand rails are secure and the step light is working, if equipped.
- The entry steps must be clear with the treads not loose or worn excessively.
- If equipped with a handicap lift, look for leaking, damaged, or missing parts and explain how lift should be checked for correct operation. Lift must be fully retracted and latched securely.

### Emergency Exit

- Make sure that all emergency exits are not damaged, operate smoothly and close securely from the inside and outside.
- Check that any emergency exit warning devices are working.

### Seating

- Look for broken seat frames and check that seat frames are firmly attached to the floor.
- Check that seat cushions are attached securely to the seat frames.

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## 11.4 Trailer

### 11.4.1 TRAILER FRONT

#### Air/Electrical Connections

- Check that trailer air connectors are sealed and in good condition.
- Make sure glad hands are locked in place, free of damage or air leaks.
- Make sure the trailer electrical plug is firmly seated and locked in place.

#### Header Board

- If equipped, check the header board to see that it is secure, free of damage and strong enough to contain cargo.
- If equipped, the canvas or tarp carrier must be mounted and fastened securely.
- On enclosed trailers, check the front area for signs of damage such as cracks, bulges or holes.

### 11.4.2 SIDE OF TRAILER

#### Landing Gear

- Check that the landing gear is fully raised, has no missing parts, crank handle is secure and the support frame is not damaged.
- If power operated, check for air or hydraulic leaks.

#### Doors/Ties/Lifts

- If equipped, check that doors are not damaged. Check that doors open, close and latch properly from the **outside**.
- Check that ties, straps, chains and binders are secure.
- If equipped with a cargo lift, look for leaking, damaged or missing parts and explain how it should be checked for correct operation.
- Lift should be fully retracted and latched securely.

#### Frame

- Look for cracks, broken welds, holes or other damage to the frame, cross members, box and floor.

#### Tandem Release Arm/Locking Pins

- If equipped, make sure the locking pins are locked in place and release arm is secured.

### 11.4.3 REMAINDER OF TRAILER

#### Remainder of Trailer

- Please refer to Section 11.2 of this manual for detailed inspection procedures regarding the following components:
  - » Wheels.
  - » Suspension system.
  - » Brakes.
  - » Doors/Ties/Lift.
  - » Splash Guards.

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## 11.5 Coach/Transit Bus

### 11.5.1 PASSENGER ITEMS

#### Passenger Entry/Lift

- Check that entry doors operate smoothly and close securely from the **inside**.
- Check that hand rails are secure and, if equipped, the step light(s) are working.
- Check that the entry steps are clear, with the treads not loose or worn excessively.
- If equipped with a lift for the disabled, look for any leaking, damaged or missing part and explain how it should be checked for correct operation.
- Lift should be fully retracted and latched securely.

#### Emergency Exits

- Make sure all emergency exits are not damaged, operate smoothly and close securely from the inside.
- Check that any emergency exit warning devices are working.

#### Passenger Seating

- Look for broken seat frames and check that seat frames are firmly attached to the floor.
- Check that seat cushions are attached securely to the seat frames.

### 11.5.2 ENTRY/EXIT

#### Doors/Mirrors

- Check that entry/exit doors are not damaged and operate smoothly from the **outside**. Hinges should be secure with seals intact.
- Make sure that the passenger exit door mirrors and all external mirrors and mirror brackets are not damaged and are mounted securely with no loose fittings.

### 11.5.3 EXTERNAL INSPECTION OF COACH/TRANSIT BUS

#### Level/Air Leaks

- See that the vehicle is sitting level (front and rear) and if air-equipped, check for audible air leaks from the suspension system.

#### Fuel Tank(s)

- See that fuel tank(s) are secure with no leaks from tank(s) or lines and the fuel cap is tight.

#### Baggage Compartments

- Check that baggage and all other exterior compartment doors are not damaged, operate properly and latch securely.

#### Battery/Box

- Wherever located, see that battery(s) are secure, connections are tight and cell caps are present.
- Battery connections should not show signs of excessive corrosion.
- Check that battery box and cover or door is not damaged and is secure.

### 11.5.4 REMAINDER OF COACH/TRANSIT BUS

#### Remainder of Vehicle

Please refer to Section 11.2 of this manual for detailed inspection procedures for the remainder of the vehicle (i.e. wheels).

Remember, the pre-trip vehicle inspection must be passed before you can proceed to the basic vehicle control skills test.

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## 11.6 Taking the CDL Pre-Trip Inspection Test

### 11.6.1 CLASS A PRE-TRIP INSPECTION TEST

If you are applying for a Class A CDL, you will be required to perform one of the four versions of a pre-trip inspection in the vehicle you have brought with you for testing. Each of the four tests are equivalent and you will not know which test you will take until just before the test begins.

All tests include an engine start, an in-cab-inspection and an inspection of the coupling system. Then, your test may require an inspection of the entire vehicle or only a portion of the vehicle which your CDL Examiner will explain to you.

### 11.6.2 CLASS B AND C PRE-TRIP INSPECTION TEST

If you are applying for a Class B CDL, you will be required to perform one of the three versions of a pre-trip inspection in the vehicle you have brought with you for testing. Each of the three tests are equivalent and you will not know which test you will take until just before the testing begins.

All of the tests include an engine start and an in-cab inspection. Then, your test may require an inspection of the entire vehicle or only a portion of the vehicle which your CDL Examiner will explain to you. You will also have to inspect any special features of your vehicle (e.g. school or transit bus).

All School and Transit (passenger) buses will require an inspection of the entire vehicle, including any special features of your vehicle (e.g. school bus stop arm, etc.).