

UTAH SCHOOL BUS INSPECTIONS NON-FACILITY ENTITIES



STATE OF UTAH DEPARTMENT OF PUBLIC SAFETY

2021

INTRODUCTION

To satisfy the requirements of H.B. 143 and Utah code 53-8-211, this training is being provided to help provide instructional material for potential certified school bus inspectors. Inspectors may be one of two levels:

I. Certified to inspect school buses for "non-facility" entities (inspection requires an accompanying State TTB inspection); or

2. Certified to inspect school buses for "facility" entities (inspecting does not requires an accompanying State TTB inspection)



INSPECTOR CERTIFICATION

All education entity technicians/inspectors who participate in the School Bus Inspection Program are required to be certified. Certification consists of the following:

I. Obtaining an operational knowledge of the School Bus Inspection Manual

2. Passing a certification test with a score of 80% or greater (tests will be made available to education entity technicians/inspectors by the division)

- 3. Re-certifying every five years
- 4. Inspector must be an employee of entity



EXTERIOR

- Lighting
- Reflectors
- Markings
- Tires and Wheels
- Exterior Body
- Exterior Mirrors and Windows



Let's take a closer look at each of these



EXTERIOR - LIGHTING

- Headlamps
 - Out of Service when there is not at least one operable low beam headlight on each side of the bus (two total).
- Turn Signals/Hazard Lamps
 - Out of service when any <u>turn signal</u> or <u>hazard light</u> is inoperable.
- Clearance Lamps/Triple I.D. Lamps
 - Violation when any clearance or I.D. lamp is <u>missing</u>, <u>defective</u> or <u>inoperable</u>.

• Brake/Tail Lamps

- Violation when any tail or brake lamp is missing, defective or inoperable not resulting in an out of service condition.
- Out of service if there is not at least one operable tail lamp on each side of the bus.
- Out of service if there is not at least one operable brake light on each side of the bus.
- Back-up Lamps
 - Violation when any back up lamp is missing, defective or inoperable.



EXTERIOR - LIGHTING

- License Plate Lamp
 - Violation when any license plate lamp is missing, defective or inoperable.

Overhead Loading Lamps

- Violation when any lens is cracked or broken not resulting in an out of service.
- Out of Service when:
 - Any overhead loading light is inoperable;
 - Any loading light that stays active after being deactivated, or;
 - Any loading light is not the required color (red or amber as required)

Step Well Lamps

- Violation when any step well lamp is missing, defective or inoperable.
- Stop Arm Lamps
 - Violation when any stop arm lamp is missing, defective or inoperable, not resulting in an out of service condition.
 - Out of Service when:
 - Any stop arm lamp fails to activate with the overhead lights;
 - Any stop arm remains in an activated position after being deactivated, or;
 - Any stop arm or stop sign is not the required color (red or amber as required)

EXTERIOR - LIGHTING

 Note: LED light assemblies are considered inoperable if <u>less than 50%</u> of the diodes are illuminated

EXTERIOR – REFLECTORS

Reflective Tape/Reflectors

 Violation when any required reflector or reflective material missing or defective.

Reflectors are required in three locations on each side of the bus:

- I. Front side corners (amber in color, and may accompany front side marker lamp)
- 2. Side midpoint between front and rear marker lamps (amber in color)
- 3. Rear side corners (red in color and may accompany rear side marker lamp)

Reflective tape is required in the following locations:

- I. Outline the perimeter of:
 - The back of the bus.
 - Emergency exits.
 - Doors and windows.
- 2. Horizontally down the side of the bus.
 - Between the floor line and the belt line.
 - The length of the bus body.

EXTERIOR – MARKINGS/COLOR

School Bus Markings

- Violation when:
 - District name and required school bus markings are missing
 - Bus number is not clearly visible on all four sides of the bus
- Violation if a privately owned (nongovernment) bus is missing any of the following markings:
 - Company name;
 - USDOT number; and
 - Registered Weight

- School Bus Color
 - Out of Service when:
 - Bus is any color other than school bus yellow (Does not include a bus that meets the definition of a multifunction school activity bus).

EXTERIOR - EMERGENCY EXIT MARKINGS

- It is a Violation when any emergency exit is not properly labeled and marked both inside and outside the vehicle as follows and as specified in 49 CFR 571.217.
 - Each school bus emergency exit provided in accordance with S5.2.3.1 shall have the designation "Emergency Door" or "Emergency Exit," as appropriate, in letters at least 5 centimeters high (two inches), of a color that contrasts with its background.
 - For emergency exit doors, the designation shall be located at the top of, or directly above, the emergency exit door on both the inside and outside surfaces of the bus. The designation for roof exits shall be located on an inside surface of the exit, or within 30 centimeters (twelve inches) of the roof exit opening.
 - For emergency window exits, the designation shall be located at the top of, or directly above, or at the bottom of the emergency window exit on both the inside and outside surfaces of the bus.
 - Concise operating instructions describing the motions necessary to unlatch and open the emergency exit shall be located within 15 centimeters (six inches) of the release mechanism on the inside surface of the bus. These instructions shall be in letters at least 1 centimeter (half inch) high and of a color that contrasts with its background. Examples: (1) Lift to Unlatch, Push to Open (2) Turn Handle, Push Out to Open

EXTERIOR - EMERGENCY EXIT MARKINGS

- It is a Violation when any emergency exit is not properly labeled and marked both inside and outside the vehicle as follows and as specified in 49 CFR 571.217.
 - Each opening for a required emergency exit shall be outlined around its outside perimeter with a retroreflective tape with a minimum width of 2.5 centimeters (one inch) and either red, white, or yellow in color, that when tested under the conditions specified in S6.1 of Standard No. 131 (49 CFR 571.131), meets the criteria specified in Table 1 of that section.
 - On the inside surface of each school bus with one or more wheelchair anchorage positions, there shall be a label directly beneath or above each "Emergency Door" or "Emergency Exit" designation specified by paragraph (a) of S5.5.3 of this standard for an emergency exit door or window. The label shall state in letters at least 25 mm (one inch) high, the words "DO NOT BLOCK" in a color that contrasts with the background of the label.

EXTERIOR – TIRES

• Tire Tread/Wear

- Violation when bus equipped with studded snow tires in violation of UCA 41-6a-1636 (Permitted between October 15th and March 31st).
- Out of Service when:
 - Any steering axle tire measures less than 4/32" in any major tread groove;
 - Any drive axle tire measures less than 2/32" in any major tread groove;
 - Any tire contacts any part of the frame, body or suspension components; or
 - Dual tires are found to be in contact with adjacent tire.

• Tire Pressure

- Out of Service when:

• Tire is flat or has noticeable leak (Flat means 50% or less than recommended pressure.)

• Tire Damage/Cut

- Violation when:
 - Any tire is found to have a foreign item embedded in it (i.e. screw, nail etc.).

- Out of service when:

- Any sidewall is cut, worn or damaged to the extent that any ply cords are exposed; or
- Any observable bump, bulge, or knot related to sidewall or tread separation.
- EXCEPTION: A bulge due to a section repair is allowed not to exceed 3/8 inch in height. This repair may sometimes be identified by a blue triangular label in the immediate vicinity.

EXTERIOR – TIRES AND WHEELS

• Load Rating/Type

- Out of Service when tire is:
 - Not of proper type; including tire load rating, mismatched tire type/size, etc;
 - Marked with restrictive markings such as; "Not for Highway Use" which would exclude use on public highways; or
 - Re-grooved, recapped or retreaded tire on steering axle.
- Wheels/Fasteners
 - Out of Service when:
 - Any wheel /rim is cracked, improperly seated, damaged or welded;
 - Any nuts, bolts, studs or wheel fasteners are broken, missing, damaged or loose; or
 - Any bolt/stud holes are visibly elongated. 393.205(b)

• Spoke (Dayton) Wheels

- Out of Service when:
 - Any spoke (Dayton Style) wheel is used on a school bus registered in the State of Utah.
- Hubs
 - Violation when:
 - Any inner or outer hub seal is leaking, not resulting in an out of service.
 - Out of service when:
 - Any axle bearing cap is missing or broken allowing an open view into hub assembly.
 - Smoking from wheel hub assembly due to bearing failure. (396.3(a) (1)).
 - Any wheel seal is leaking. (Must include evidence of wet contamination of the brake friction material and accompanied by evidence that further leaking will occur.)
 - Lubricant is leaking from hub and is present on the wheel surface accompanied by evidence that further leaking will occur.
 - No visible or measurable amount of lubricant showing in hub.

EXTERIOR – EXTERIOR BODY

• Batteries

- Violation when:
 - Batteries are not secured as designed by bracket or other method, or
 - Signs of leaking or excessive corrosion are present.
- Bumpers
 - Out of Service when:
 - Either front or rear bumper(s) are loose, missing or damaged creating a hazard, or
 - Altered creating a snag or entrapment hazard.
- Damage/Snag Hazard
 - Out of Service when:
 - Any school bus body part that is loose, torn, dislocated or protruding from the surface of the bus, creating a hazard.

- Cargo Door/Hood Securement/Other Door
 - Out of Service when:
 - Any door does not open and close properly;
 - Door control handle does not lock in the closed position; or
 - Any engine, battery or other door is not properly secured.
- License Plate
 - Violation when:
 - Missing front or rear plate mounted as required, or plate is not securely fastened.

For "Apportioned" plates, only one is needed.

School Bus Inspection Sticker

- Violation when:
 - State school bus inspection sticker is not affixed or expired.
 - Expired annual inspection (non-facility only)

EXTERIOR – MIRRORS AND WINDOWS

Rearview/Convex Mirrors

- Out of Service when:

- Any mirror required to provide the driver with the entire field of view is missing, damaged, clouded or otherwise obscured so as to place children in a hazardous position.
- Any crossover mirror system or portion thereof fails to hold a set adjustment.
- Any crossover mirror directed to view any area other than for which they were intended; or any part of the required field of vision is obscured or not visible from the driver's seated position.
- Any mirror is broken (inside or outside) that would create a hazard in or around the bus.

- Windshield/Windows
 - Out of Service when:
 - Any window or glass is broken, creating a hazard (inside or outside).
 - Any window, windshield or glass is not of an approved type.
 - Any window, windshield or glass is missing.
 - Windshield, or windows to the left/right of the driver, are damaged, or in such condition that it obstructs/interferes with driver's view (chips-clouding-cracks-sandpits-distortion-etc.). (393.60 (c)).

INTERIOR

- Instrument Panel and Controls .
- The interior inspection • Seats
- consists of seven • Interior Body
- Interior Mirrors and Windffys different areas of focus
- **Emergency Equipment** •
- Aisles and Emergency Exits
- Lights Let's take a closer look at each of these



INTERIOR – INSTRUMENT PANEL/CONTROLS

- ABS Warning
 - Violation when ABS warning light remains on or does not function as required
- Air Pressure Gauge
 - Out of Service when primary or secondary air pressure gauge is missing, inoperative or defective (393.51)
- Bus Pop-OffValve/Parking Brake
 - Out of Service when parking brake pop off valve does not automatically set between 15-45 psi (plus or minus 5 psi).

- Low Air Pressure Warning /Park Brake Indicator
 - Out of Service when:
 - Low pressure warning device is missing, inoperative or does not operate between 45 and 70 PSI.

Note: If either an audible or visual warning device is working as required, the bus should not be placed out-of-service.

- Parking brake warning light fails to function as designed.
- Horn
 - Violation when at least one horn is not operable



INTERIOR – INSTRUMENT PANEL/CONTROLS

Windshield Wipers/Washers

- Violation when no washer fluid in system
- Out of Service when:
 - Any wiper or washer system is inoperative, missing or damaged to the extent that renders it ineffective on the either side. (393.78(a)(b)).

Note: It is not OOS if washer fluid bottle is empty, but all other components function properly.

- Defroster
 - Out of Service when defrost is inoperable or does not blow air on the windshield as required.

- Auxiliary Heater Unit
 - Out of Service when:
 - Any component of an auxiliary heater system is not properly secured.
 - Any fluid leak from an auxiliary heater core assembly is detected inside the passenger compartment.
- Doors
 - Out of Service when:
 - The service door does not open or close properly.
 - The door control handle does not lock in the closed position.
 - The door is equipped with a padlock or similar non-OEM locking device (excludes interlock systems).



INTERIOR – SEATS

• Seats/Barriers/Spacing

- Violation when any seat, cushion or barrier is loose or damaged not resulting in an out of service condition
- Out of Service when:
 - Any seat frame, cushion or barrier is completely detached from the structure to which it is designed to be secured (must be completely separated from attachment point to be OOS).
 - Any seat or barrier material(s) are defective or missing which compromises the safety or the compartmentalization and occupant protection.
 - Any seat assembly or barrier spacing fails to comply with (571.222.)

- Driver's Seat Restraint/Adjustment
 - Out of Service when:
 - Driver seat is not securely fastened to vehicle or fails to adjust/maintain proper adjustment.
 - Any part of the driver's safety restraint system is missing, not properly installed, or so defective as to prevent proper securement/restraint.
- Wheelchair (inspected by district personnel only)
 - Out of Service when:
 - Wheelchair lift is inoperable or does not function as designed.
 - Any hydraulic line leaking during lift operation.
 - Wheelchair securement missing, improperly secured, loose or damaged.
 - Any required wheelchair restraint system not in compliance with FMVSS No. 122.



INTERIOR – INTERIOR BODY

- Electrical Wiring
 - Out of Service when:
 - Electrical Cable insulation is chafed, frayed, damaged, burnt, or causing bare cable to be exposed.
 - Missing or damaged protective grommets insulating electrical cables through metal compartment panels
 - Broken or unsecured mounting of electrical components
 - Electrical cables unsupported, hanging or missing clamps that may cause a chafing or frayed condition (393.28) (396.3(a) (1)).
- Floor
 - Out of Service when any floor condition creates a hazard (integrity, tripping, slipping, etc.).

- Hand Rails
 - Violation when:
 - Any handrail is loose, not resulting in an out of service condition
 - Out of Service when:
 - Any handrail that is missing or loose to the extent that a gap is created between mounting surfaces, thus causing a situation where an occupant's clothing, backpack, etc. could be snagged.
 - Handrail does not meet OEM specifications.
- Interior Panels
 - Out of Service when:
 - Any panel (ceiling, side, wheel well, etc.) protruding, having sharp edges or not properly secured to the extent that it may cause injuries.



INTERIOR – INTERIOR BODY

- Prohibited Liquids
 - Out of Service when:
 - Gasoline, diesel, propane, motor oil, power steering fluid, antifreeze, hydraulic fluid, windshield wiper fluid, brake fluid, starting fluid (ether) or any other liquid or gas substance used in the mechanical operation of the school bus when located in the passenger compartment.
 - (NOTE: All other potentially hazardous materials not associated with the mechanical operation of the school bus will be determined and stored at the discretion of the LEA. Items located during UHP inspections that are of potential concern, but not amounting to an OOS condition, will be noted on the inspection report and the LEA notified.)

- Step Well Integrity
 - Out of Service when:
 - Any part of the step well or support structure is damaged.
 - Any condition that creates hazard (tripping, slipping, etc.).



INTERIOR – INTERIOR MIRRORS/WINDOWS, LIGHTS

Interior Mirrors

- Out of Service when:
 - Any interior mirror(s) is missing or damaged or are not constructed with rounded corners and protected edges. 6" X 16" minimum in size for type "A" buses and 6" X 30" minimum in size for type "C" and "D" buses
 - Mirrors are not laminated or tempered.
- Side/Rear Windows
 - Out of Service when:
 - Any glass is broken or missing which creates a hazard to any occupant.

- Posters/Markings/Decorations
 - Out of Service when:
 - Any poster, markings or decorations forward of the fourth row of occupants seating obstructs any window, mirror or required markings (emergency exit markings, emergency equipment markings, etc.).
 - Any poster, marking or decoration that obstructs required markings or creates a hazard.
- Dome Lights
 - Violation when:
 - Any interior dome lamp is missing, defective or inoperable.



INTERIOR – EMERGENCY EQUIPMENT

- Body Fluid Kit
 - Violation when:
 - Any bus is not equipped with a body fluid cleanup kit.
- First Aid Kit
 - Violation when:
 - Any bus is not equipped with a first aid kit.

- Triangles
 - Violation when:
 - Missing any one or more of the three required emergency triangles.
- Fire Extinguisher
 - Out of Service when:
 - Fire Extinguisher is discharged, missing, unsecured or not readily accessible for use within the driver compartment.



INTERIOR – AISLE EMERGENCY EXITS

- Aisle Clearance/Obstruction/Center
 Strip
 - Out of Service when:
 - Aisle does not have required clearance.
 - Aisle or exit access is obstructed by any object.
 - Center aisle strip is missing, damaged or not properly secured creating a hazard (integrity, tripping, slipping, etc.).

• Exit Obstruction

- Out of Service when:
 - Any emergency exit that is equipped with a padlock or similar non-OEM locking device (excludes interlock systems).
 - Aisle or exit access is obstructed by any object.
 - Any self-retracting flip seat that does not retract on its own.

- Window/Door Markings
 - Violation when:
 - Any emergency exit is not properly labeled and marked both inside and outside the vehicle as specified in (49 CFR 571.217).
 - Also see "emergency exit markings".
- Window/Door Buzzers
 - Violation when:
 - Any emergency exit window buzzer is inoperable.
 - Out of service when:
 - Any audible warning device on an emergency exit door is defective or fails to function (defective emergency window warning device is not an OOS condition).



CONGRATULATIONS!

YOU'VE COMPLETED THE TRAINING AND ARE READY TO TAKE THE EXAM.

Send an EMAIL requesting to take the test to:

utahschoolbus_UHP@Utah.gov

A link to take the test will be sent to your email.

Please allow up to 7 business days before calling in. After 7 business days if you haven't received the link call the Safety Inspection Office at (801)965-4888. If no one answers, leave a message with your name, phone number and date you completed the training.