

Type A School Bus, With or Without Wheelchair lift

MINIMUM SPECIFICATIONS AND STANDARDS

Type A School Bus Fully Integrated – A school bus with an integrated body and chassis and engine from the same manufacturer with a left side driver's door, with a 23 passenger 2 per seat 39 inch seat.

Type A School Bus Partially Integrated – A school bus with any two (body, chassis, engine) from the same manufacturer with a left side driver's door, with a 23 passenger 2 per seat 39 inch seat.

1. AIR CONDITIONING:

1.1 At minimum front and or rear air conditioning units shall be provided. If front and rear air conditioning provided, the units shall operate independently of each other with separate compressors.

1.2 Minimum BTU rating of 45,000 lbs with two evaporators

NOTE: Rear Roof mounted air conditioning shall not be acceptable.

1.3 The air conditioning system shall include 45,000 BTU evaporator mounted in the front or rear bulkhead, a 3 fan condenser. Front air conditioning unit will be chassis manufacturer standard single zone manual dash mount.

A. Evaporator

- 1) 45,000 BTU or greater
- 2) Housing shall be welded and bolted construction
- 3) The drain pan shall have a 30 degree tilt towards the center of the pan. There will be drainage hoses on both ends of the evaporator
- 4) The front cover will be removable without the need for hand tools.

B. Condenser

- 1) 55,000 BTU or greater capacity
- 2) Slant coil design
- 3) fan condenser

2. ALTERNATOR:

2.1 Alternator shall be provided with a minimum AMP rating of 220
AMPS total

- 2.2 Alternator shall be 12-volt series or equal of no less than 120amps.
- 2.3 Electric system including instrumentation shall be 12-volt negative ground system.
- 2.4 A main circuit breaker shall be provided to protect the electrical system from fire or damage from electrical short and shall be resettable. It shall be installed in an accessible location either in the passenger or engine compartment. It shall be appropriately sized to protect the vehicle electrical systems.
- 2.5 Capacity should be sufficient to operate all accessories and the vehicle simultaneously.

3. GROSS VEHICLE WEIGHT (GVW):

- 3.1 GVW rating of these buses shall be no less than 12,300 lbs and no more than 20000 pounds. Buses shall have dual rear wheels.

4. BACK-UP WARNING DEVICE:

- 4.1 An audible warning device indicating vehicle is about to backup or is backing-up shall be installed. Warning device shall sound upon placing the gear selector in reverse.

5. BATTERIES:

- 5.1 Manufacturers standard Dual 12-volt maintenance-free type with a minimum of 770 cold cranking amps (cca) per battery.
- 5.2 Battery capacity shall be sufficient to meet the electrical loads generated in normal overload factors.
- 5.3 Battery tray shall be constructed with heavy duty materials.
- 5.4 One-piece battery cables of sufficient length to reach from the outside battery compartment to engine compartment shall be provided.
- 5.5 All cables are to be sufficiently protected from chaffing and shorting with appropriate protective devices.

6. BODY FLUID CLEAN-UP KIT:

- 6.1 Contents of body fluid kit must meet Federal minimum standards.
- 6.2 Container shall be constructed of metal or plastic suitable for mounting and labeled "BODY FLUID CLEAN-UP KIT" and be easily removed from mounting bracket as needed

- 6.3 The successful vendor shall ensure that manufacturer refills are available to OSSE-DOT throughout the contract term.

7. SEATING

- 7.1 39 inch school bus seat with 2 lap belts per seat.

8. BODY TO FRAME MOUNTING:

- 8.1 Bolt isolator system

9. BRAKES:

- 9.1 Power w/4-wheel antilock.

10. BUMPERS:

- 10.1 Front bumpers to be heavy duty type from the chassis manufacturer.
- 10.2 Rear bumper shall be pressed steel channel and meet Federal Standards for School Buses.

11. COLOR:

- 11.1 Exterior - National School Bus Chrome Yellow high solids polyurethane (no exceptions.) Roof - to be painted white.
- 11.2 Bumpers and Rub Rails - painted gloss black. Interior - standard color.
- 11.3 All paint must be lead-free.

12. COOLING SYSTEM:

- 12.1 Heavy duty radiator of sufficient capacity to maintain coolant system temperature to engine manufacturer specifications.
- 12.2 Integral surge expansion tank shall be provided.
- 12.3 Clutch driven fan shall be provided.

13. CONSTRUCTION:

13.1 Construction must meet the standard established in the FMVSS [Federal Motor Vehicle Safety Standards](#)

13.2 Construction of side panels shall include steel cage and steel side panels or be of .060 aluminum with steel cage. All such construction materials shall be fire-resistant.

14. DOORS:

14.1 Service doors shall be electrically operated, outward opening. Shall have outside emergency release.

14.2 Door shall seal against a stationery rubber and bottom step edge

14.3 Interior mounted manual door releases must be provided on the rear emergency door.

14.4 Protective header pad shall be provided above door opening.

14.6 Driver side door.

15. ELECTRICAL PROTECTION

15.1 Primary circuit protection shall be provided by a “Maxifuse Block” or equivalent designed to eliminate fused links.

15.2 A secondary circuit breaker block shall be conveniently located near the driver's compartment with access door; fuses shall be two blade type. All chassis wiring shall be color-coded, continuously numbered wiring.

15.3 All body wiring to be color coded wiring harnesses to be preformed to minimize installation stress; wire splicing accomplished by sonic welding and/or utilizing heat shrink tubing with hot melt adhesive inside to protect against corrosion. Triple sealed, “Metri-pak” connectors with positive lock are required wherever external wiring connections are made for ease of service or equivalent.

16. EMERGENCY EXITS:

16.1 Emergency door shall be located in center of rear end of bus.

16.2 A red light shall be installed above the emergency exit door in interior of bus and be on whenever engine is on.

16.3 Protective header pad shall be provided above door opening and be the same color and material as the seats.

16.4 Roof hatch(s) with interior and exterior release handles shall be provided. Hatch shall be one-piece solid cover design without vent.

- 16.5 Provide one (1) emergency push out windows on the right side and one (1) on the left side.
- 16.6 Seat backs or barriers shall not be located in such manner to restrict the use of the windows in an emergency.
- 16.7 All emergency exits shall be equipped with an audible buzzer that will sound when latch is moved toward open position. Buzzer is centrally located near drivers position.
- 16.8 All emergency exits shall be outlined with yellow reflective tape on exterior of the bus.
- 16.9 All emergency exits shall conform to Federal Motor Vehicle Safety Standards 217.

17. ENGINE:

- 17.1 Diesel powered electronically controlled engine meeting all emission requirements in affect at the time of manufacturer.
- 17.2 Engine horsepower, torque, and displacement required to maintain 55 mph at a grade of 2%, (Grade ability 2 %.)
- 17.3 Engine Shutdown System
 - a. System will monitor oil pressure, engine coolant, and engine temperature.
 - b. A fault condition causes a warning light to illuminate.
 - a. System shall allow operator to move the vehicle to safety.
- 17.4 Exhaust System:
 - a. Single muffler. Manufacturer's standard equipped with any and all emission control devices as required by the EPA.
 - b. The end of tail pipe shall extend flush with rear bumper.
 - c. When tire size specified extends beyond the body, the wheel areas shall be covered with a rubber fender extension around the complete wheel housing.
 - d. Mud flaps shall be provided behind each wheel.

18. FIRE EXTINGUISHER:

18.1 One 2 1/2lb. ABC type fire extinguisher to meet D.C. standards.

19. FIRST AID KIT:

19.1 First aid kit shall be a metal or plastic type kit 16 unit.

19.2 First aid kit must be mounted in a manner that allows easy removal from bracket when needed.

20. FLOORING AND FLOOR COVERING:

20.1 Floor covering shall be gray slip resistant rubberized material.

20.2 Aisles and steps shall be covered with a ribbed rubberized slip resistant material.

21. FRAME:

21.1 Frame shall conform to Federal Specifications for Type "A" school buses.

22. FUEL CAP:

22.1 Fuel cap shall be attached to tank with chain or other device that prevents loss of cap.

22.2 Fuel Filler shall be marked: "Diesel Fuel Only".

23. FUEL FILTERS:

23.1 Dual fuel filters shall be provided. Water separator shall be separate or in conjunction with one of the fuel filters. and fuel

23.2 Replaceable type filter required.

24. FUEL TANK:

24.1 Fuel tank shall be manufacturers standard with a minimum 30 gallon capacity.

24.2 Fuel tank shall meet all requirements of the Federal Motor Vehicle Safety Standard 301.

25. HANDRAILS:

25.1 Handrails are to be installed on one side of the front entrance going

up the steps of the bus.

26. HEATERS/DEFROSTERS:

- 26.1 Two heaters to be provided, one (1) front and one (1) rear.
- 26.2 Heaters to have the following minimum BTU ratings/features:
- 26.3 Front Heater: Manufacturer's standard in dash heater. Rear heater: 65,000 BTU.
- 26.4 Driver's heater to provide selection option for fresh air, recirculating air, or combination.
- 26.7 Defrosters shall be of sufficient capacity to keep windshield clear of fog, ice, and snow.
- 26.8 One cutoff valve shall be provided to shut off water flow to passenger compartment.
- 26.9 Defroster channel openings shall be to manufacturer's standard
- 26.10 All hot water lines inside the passenger compartment shall be made of rubber in one continuous piece.
- 26.11 All plumbing for heaters will be enclosed in aluminized steel protective housings.
- 26.12 All rubber plumbing in driver's compartment to be protected with flexible rust resistant tubing.
- 26.13 All heaters shall be equipped with air filters, to provide easy access for cleaning.

27. IGNITION/KEYS:

- 27.1 Manufacturer shall furnish their standard key code.
- 27.2 Manufacturer shall provide two (2) sets of ignition keys per bus.

28. INSTRUMENT/PANEL:

- 28.1 Instrumentation on or near dash shall include:
- 28.2 Speedometer/odometer
- 28.3 Voltmeter

- 28.4 Oil pressure gauge
- 28.5 High water temperature warning light
- 28.6 Low oil pressure warning light
- 28.7 Water temperature gauge
- 28.8 Fuel level gauge
- 28.9 Headlight high beam indicator
- 28.10 Self canceling directional signals
- 28.11 Emergency escape audible alarm
- 28.12 Ignition switch
- 28.13 Instruments shall be easily accessible for maintenance and repair and mounted in such a way that each is clearly visible to the driver while in normal seated position.

29. INTERIOR:

- 29.1 Interior of bus shall be free of all unnecessary projections likely to cause injury.
- 29.2 All interior panels to have hemmed edges.
- 29.3 Interior side panels shall be aluminized steel extending from lower edge of window to seat mounting rail.
- 29.4 Interior Height - Minimum interior body height from floor to center of roof shall be between 72" and 78".
- 29.5 License Plates shall have front and rear brackets or mounting area.

30. LIGHTS AND SIGNALS:

- 30.1 All body mounted light and reflector rims shall be made of dura-mold plastic.
- 30.2 Headlights: Shall be equipped with daytime running light design. Daytime running lights shall only be illuminated when the ignition switch is in the "On" position and not in the Accessory" position.
- 30.3 Cluster: 3 amber lights recessed into body.

- 30.4 MARKER: 2 FRONT RECESSED INTO BODY..
- 30.5 All exterior lights are LED except for 8 ways and stop sign.
- 30.6 Rear:
 - a. Stop Tail: 1 right rear, 1 left rear.
 - b. Directional: 1 right, 1 left amber lens.
 - c. Back-up: two with clear lens.
- 30.7 Sides:
 - a. Directional: One amber located right side behind service door and one I located left side similar position.
- 30.8 Interior:
 - a. Step Well: 1 minimum, operating whenever service door is opened.
 - b. Dome: 6 minimum, 3 rows of 2 for passenger area... One individually switched for driver.
- 30.9 Engine Compartment:
- 30.10 Reflectors:
 - a. Three (3) on each side of bus, (front, center, and rear) 2 on rear of bus.
- 30.11 ROOF STROBE LIGHT

31. SCHOOL BUS LIGHT WARNING SYSTEM

- 31.1 School bus alternating flashing eight light warning systems shall be provided to meet the latest Federal requirements FMVSS requirements. Alternately flashing red lights.
- 31.2 Warning Light Control
 - a. The flasher control unit for the warning lights shall be a solid state type. The control switches will operate according to Federal requirements.

32. MIRRORS:

- 32.1 All mirrors shall conform to FMVSS Standard III requirements and be mounted with brackets and hardware.
- 32.2 Interior Mirror:

- a. Shall have safety plate 6" x 16" minimum designed to minimize glare and to afford good view to the rear.
- b. Mirror shall be metal backed with rounded corners and protected edges.

32.3 Exterior Mirrors:

- a. All exterior mirrors, shall be electrically heated and remote controlled. All exterior shall be electrically heated and remote controlled
- b. Mirror configuration with one flat mirror mounted above one convex mirror on each side.
- c. Mirrors will not extend beyond the body of the bus more than 110" measured from outside edge to outside edge of the left and right side mirrors.
- d. Provide Tiger-Eye or equivalent crossover mirror shall be heated only

33. NOISE REDUCTION PACKAGE:

- 33.1 Provide sound package throughout the entire passenger compartment that will meet or exceed the 83 DBA sound limit.
- 33.2 Package shall include, but not be limited to, firewall insulation, rubber steps and floor cover.
- 33.3 Must include firewall, transmission cover, black rubber mat with 50 oz. felt backing in driver's area and toe-board insulation.

34. RADIO:

- 34.1 OEM AM/FM radio with minimum of two (2) interior speakers.

35. SAFETY DEVICES:

- 35.1 All exterior safety devices are to be mounted with steel fasteners and meet FMVSS requirements.
- 35.2 Provide one front and left-side mounted octagon shaped, stop arm
- 35.3 Stop arm shall include two (2) flashing strobe lights on each arm that will be activated with the red warning lights.

- 35.4 Provide for post-trip inspection (child checkmate) device which sounds alarm in driver's area upon shut-down of vehicle.. (Device ensures drivers perform post-trip inspection of passenger compartment.)

36. SEATS/SEATING ARRANGEMENT - SEATING DIAGRAM REQUIRED:

- 36.1 Passenger Seats: Minimum of 22 seated passenger Type "A" . All seats shall conform to Federal requirements for 28" high back seats suitable for Type "A" School Buses.

37. SEAT/SEATBELT:

- 37.1 Drivers Seat (Driver's seat must be compatible with the design of the bus.):
- 37.2 Adjustable four (4) ways seat with 275 pounds minimum weight capacity.
- 37.3 Seat to be high back seat.
- 37.4 All seat materials to be 42 oz fire resistant vinyl.
- 37.5 Color to be standard color..
- 37.6 A combination shoulder strap and seat belt with adjustable pillar-loop retractors and boot or sheath shall be provided for the driver.
- 37.7 Belts shall comply with current specifications and recommended practices of Society of Automotive Engineers except that the belt shall be fastened to bus floor immediately behind driver seat when seat is adjusted to its rearmost position.
- 37.8 Shoulder strap and seat belt shall have retractors and boot or protective cover.

38. SHOCK ABSORBERS:

- 38.1 Heavy-duty type front and rear.

39. SIGNAGE:

- 39.1 All lettering shall be in black letters except where noted below.
- 39.2 The words DISTRICT OF COLUMBIA PUBLIC SCHOOLS shall be placed immediately below window line on both sides of bus in 6" lettering, 1" stroke.

- 39.3 SCHOOL BUS shall be placed on the front and rear as required with an illuminated sign .
- 39.4 STOP ON RED SIGNAL shall be placed on the rear emergency door
- 39.5 NO STANDING IN FRONT OF WHITE LINE sign shall be in front center of bus.
- 39.6 Numbers (“BE XXXX**”) shall be placed as follow. Specific numbers will be provided by OSSE-DOT upon award
- 39.7 Right Side: top front corner, top rear corner, below window line next to service door, rear corner below window line.
- 39.8 Left Side: top front corner, top rear corner, side below driver’s window, rear corner below window line.
- 39.9 Front: left side front bumper (yellow numbers).
- 39.10 Rear: right corner
- 39.11 Inside: above front windshield.
- 39.12 All emergency exits shall be marked according to Federal and State Requirements
- 39.13 The rear corners, top and bottom of the back of the bus shall be outlined in yellow reflective tape.

40. STEERING WHEEL:

- 40.1 Shall be mounted on tilt column. Shall be covered with a padded-material other than hard plastic.

41. STEPS:

- 41.1 Step Well: Three (3) or four (4) step entrance covered with black or gray slip resistant ribbed rubber with white nosing.
- 41.2 Step Wells shall be constructed of rust resistant material.
- 41.3 Step Wells heater shall be 50,000 BTU

42. SUN VISOR:

- 42.1 Adjustable sun visor shall be provided over driver's side of windshield.

43. TIRES AND WHEELS:

- 43.1 All tires to be 14-ply low profile steel radial LT245/75R x 16E.
- 43.2 All wheels shall be hub piloted.
- 43.3 Front tires to be highway thread rear tires to be M & S

44. TRANSMISSION:

- 44.1 Automatic electronic 4 speed or greater w/overdrive transmission. Transmission must be compatible with engine offered.

45. UNDERCOATING:

- 45.1 Entire underbody to be completely factory undercoated with Tectyle wax base undercoating material or equal, excluding fiberglass hood.

46. VENTILATION:

- 46.1 with air conditioning system.
- 46.2 Heaters in driver's area will provide optional fresh air/recirculating positions.

47. WINDSHIELD WIPERS AND WASHERS:

- 47.1 There shall be two (2) heavy-duty positive actions, 2-speed electric operated wipers and washers.
- 47.2 Intermittent wiper control also required.

48. WIRING:

- 48.1 No body accessory can be operated when ignition switch is off except post trip warning device
- 48.2 All wiring must be color coded and numbered.
- 48.3 Wiring diagrams shall be affixed to electrical compartments accurately indicating the position of all relays, breakers, buzzers, fuses, etc.

49. WINDOWS:

- 49.1 All full size passenger windows shall be aluminum framed split sash.
- 49.2 All passenger window glass to be tinted to minimum 28% and a maximum of 45% light transmission.

50. WARRANTY

A. CHASSIS:

Full warranty coverage for the entire rolling chassis to include, but not limited to, the motor, transmission, electrical, brakes and

related parts and components shall be the manufacturer's standard warranty that is offered during the model year of the chassis provided and shall be no less than that warranty offered to the general public. This warranty shall be at a minimum 60 months or 150,000 miles whichever comes first and shall include all parts and labor necessary to repair or replace any defective parts and/or equipment provided with the motor vehicle rolling chassis.

B. SCHOOL BUS BODY:

Full warranty coverage for the school bus body and all related parts and components including, but not limited to, any additional mechanical items installed, and all electrical wiring installed by the bus body company shall be the manufacturer's standard warranty that is offered during the model year of the school bus body provided and shall include all parts and labor necessary to repair and/or replace defective parts and/or equipment. This warranty shall be at a minimum 36 months or 36,000 miles whichever comes first. 5 year body structure warranty

51.SERVICE

Factory authorized dealership or service center must within 15 miles of OSSE-DOT - 1709 3rd St. NE.
Washington DC 20002