

PART 2 - SCHOOL BUS SPECIFICATIONS

These specifications apply to A, B, C, D, F, G, H Class School Buses, and any other Classes to which the Authority from time to time determines.

Class A School Bus is a vehicle with a maximum seating capacity of 20 adult seats with a primary conversion of 27 or 24 adults with no primary conversion, with a service life of 10 years.

Class B School Bus is a vehicle with a seating capacity of 43 adults, with a service life of 15 years.

Class C School Bus is a vehicle with a seating capacity of 57 adults and a maximum of 83 primary students, with a service life of 15 years.

Class D School Bus is a vehicle with a maximum passenger seating capacity of 15 adults, with a service life of 10 years.

Classes of School Bus (4 Wheel Drive Vehicles)

Class F School Bus is a vehicle with a seating capacity of 17 adults and a maximum seating capacity of 21 primary students, with a service life of 15 years.

Class G School Bus is a vehicle with a seating capacity of 24 adults and a maximum seating capacity of 32 primary students, with a service life of 15 years.

Class H School Bus is a vehicle with a seating capacity of 34 adults and a maximum seating capacity of 49 primary students, with a service life of 15 years.

1. GENERAL

1.1 School Bus must be fit for use and licensable

Every vehicle used as a contract School Bus must be roadworthy, appropriate to the conditions under which it will be driven, comply with all applicable acts, Australian Standards, Australian Design Rules (ADRs), ISO Standards and all specifications set out below relevant to the particular vehicle and its safe operation, and be licensed or licensable for use in Western Australia. If there is any inconsistency between this specification and any applicable Act, Standard or ADR then the Act, Standard or ADR will prevail.

1.2 Seatbelts mandatory on new School Buses

All seats on new school buses must be ADR 68 compliant seats (i.e. passenger and driver seats), fitted with lap-sash seat belts of a type approved by the Authority.

1.3 Fire Suppression System

From 1 July, 2014 each Education Support, and wheelchair enabled Bus, must have installed an engine fire suppression system approved by the Authority.

1.4 School Bus must be approved before use on Service

Prior to being used on a contract school bus service (Service), each School Bus must be inspected and approved by a vehicle inspector appointed by the Authority (PTA Inspector) as acceptable for use on the Service, and the Contractor will, at the Contractor's expense, make the School Bus available for inspection at a location nominated by the Authority.

1.5 Items may not be fitted to or removed from School Bus without Authority's Approval

No item, including any item classified as an accessory, may be fitted to or removed from a School Bus unless the Contractor has applied in writing to the Authority to have the item fitted or removed and the fitment or removal has been approved by a PTA Inspector.

1.6 Authority may amend Specification

The Authority reserves the right to amend this specification, and will give Contractors not less than 1 months' notice in writing if it does so, unless the amendment relates to a matter of safety such as to require immediate action, in which case the Authority may amend the specification and verbally advise Contractors of the amendment.

2. STANDARD SPECIFICATION OF SCHOOL BUS

2.1 Engine

The School Bus must be diesel powered.

2.2 Transmission

All school buses purchased after 1 July 2010, may be fitted with an automatic or manual transmission.

2.3 Air Conditioning

All school buses purchased after 1 July 2010 must be air conditioned.

2.4 Brakes

An audible warning device indicating low system vacuum/air must be fitted in addition to the requirements of any relevant ADR.

2.5 Wheels and Tyres

All wheels must be fitted with steel-belt radial-ply tyres of a load or ply rating not lower than that set by the manufacturer.

Re-treaded tyres must not be used on any class of School Bus.

2.6 Colours and Markings

The School Bus must be painted with a high-grade baked enamel finish as approved by the Authority as follows:

- (a) all solid areas above the lower edge of the passenger compartment windows must be white;
- (b) all solid areas below the windows must be in a colour matching Readymix Orange and must be relieved by a strip painted in a colour matching Hawthorn Green not less than 50 mm and not greater than 150 mm in width running longitudinally around the vehicle.

2.7 Exterior Signage –All Decals to be UV Rated

- (a) Other than as provided in this item, no symbols or markings may be placed on the outside of the School Bus without the prior approval from the Authority.
- (b) The words 'SCHOOL BUS' and 'CAUTION' must be displayed in Hawthorn Green or black lettering mounted on a white background not less than 100 mm in height at the front and rear of the vehicle. The "CAUTION" must be located as high and as central as practical and the "SCHOOL BUS" must be central as low as practical on the white portion. **(Fig 1&2)**
- (c) Symbolic 'child crossing' signs must be positioned as far to the right as practicable and must also be displayed at the front and rear of the School Bus, and located in a position designated by a PTA Inspector. **(Fig 1&2)**
- (d) The Contractor's name, address and telephone number may be placed on the front right-hand side of the School Bus in Hawthorn Green or black lettering provided the lettering is no more than 50 mm high.

- (e) A radio call sign may be placed on the rear right-hand side of the School Bus provided it is in black or white lettering no more than 100 mm high.
- (f) Disability access signs are permitted where required.
- (g) Internal top step must have 'Caution Step' sign in lettering not less than 25 mm in size with durable perspex clear covering.
- (h) DO NOT OVERTAKE TURNING VEHICLE signage must be 400 mm x 400 mm square type for class B, C, G and H vehicles. These signs must be mounted just above the rear bumper on the left and right hand sides of the vehicle. **(Fig 3)** Alternatively chevron markings complying with the Road Traffic Code may be fitted.
- (i) A100 SPEED LIMITED signage must be placed on or just above the rear bumper in a central position for vehicles fitted with speed limiter.
- (j) At completion of a School Bus contract all School Bus signage must be removed.



Fig 1



Fig 2



2.8 Passenger Fig 3 Doors

- (a) The School Bus may not have external plug type forward opening doors.
- (b) If the School Bus has seating capacity for more than 24 adult passengers, passenger entry door must have a door-sensitive safety edge.

- (c) All entry doors held in the closed position by air pressure or electrical means must have an external and internal visual release control to allow for manual opening in an emergency.
“D” class commuter to be fitted with auto entrance door
- (d) The release control must be located as close to the door as possible and be clearly labelled.
- (e) All entry doors located to the rear of the Driver must have an 'open position' audible warning device fitted to operate when the emergency brake is in the released position.
- (f) Door steps shall be guarded where there may be potential to fall through side gaps. **(Fig 4)**



Fig 4

2.9 Emergency Exits

All equipment supplied for the breaking of emergency glass windows must be securely attached to the School Bus and have audible warning devices fitted to warn the Driver if they are dislodged.

2.10 Fire Extinguisher

- (a) School Busses must contain efficient and operational fire extinguishers of a type approved by the Authority and conforming to AS 2444 (20B minimum rating, fitted with hose), which must be stored securely in an accessible location and its location notified by appropriate signage as designated by a PTA Inspector.
- (b) Class A and D minimum one extinguisher, all other bus classes - two extinguishers.
- (c) Fire extinguishers must be inspected in accordance with Australian Standards (AS 1851) and passed and date stamped by an organisation competent and authorised to provide appropriate certification.

2.11 First Aid Kits and Safety Triangles

The School Bus must contain a first aid kit or kits which comply with Australian Standards 2675-1983 Kit B and are stored in an enclosed cabinet displaying appropriate signage at the front of the bus.

Class A, D and F to have 2 First Aid Kits and 5 Safety Triangles

Class B, C, G and H to have 3 First Aid Kits and 6 Safety Triangles

Note: 1 Safety Triangle for each First Aid Kit to be placed with the First Aid Kits for B and C Class, the additional 3 Safety Triangles should be placed in the vehicle's Tool Box.

2.12 Electrical

Unless otherwise permitted by the Authority, the School Bus must be fitted with an audible reverse warning buzzer, and high-level roof-mounted clearance/stop and direction indicator lights, mounted as close as possible to the outside edge of the body.

2.13 External Roof Racks

The School Bus must not be fitted with external roof racks.

2.14 Under-floor Storage Bins

Under-floor storage bins are allowed provided that they do not affect gross vehicle mass or reduce the seating capacity of the School Bus.

2.15 Frontal Impact Protection Bars

Bull bars, Roo bars or Nudge bars must not be fitted to School Busses that service metropolitan Schools and associated routes. Permission to fit a bar for other services must be approved by the Authority.

2.16 Corrosion Prevention

All school busses purchased after 1 July 2014 must have corrosion/rust protection applied to the chassis and body.

2.17 Driver's View

Drivers Position

The driver must have adequate visible, audible and physical access to the passenger compartment for monitoring and interaction particularly in the case of an emergency within the cabin.

- (a) The Driver, when in his/her normal driving position, must have an adequate view of passenger access doors and approaches, including the first 2 windows to the rear of the entry door.
- (b) The vehicle must be fitted with suitably placed internal or external mirrors, including a convex mirror of a minimum size of 165 mm² to the front left-hand side.
- (c) The mirrors described in item 2.15(b) are additional to the mandatory driving mirrors.

2.18 Passenger Seats and Seatbelts

- (a) All passenger seats must face the direction of travel and be at least 300 mm wide and not able to be reclined.
- (b) Where seats are raised to allow for stepped floors no seat cushion height may exceed 150 mm above the seat cushion height of the seat directly in front.
- (c) If the School Bus is fitted with seatbelts for use by passengers, the seatbelts must be of a lap-sash type (ADR 68/00) with retractor approved by the Authority and fitted in accordance with all relevant ADRs.
- (d) If the School Bus is fitted with seatbelts for use by passengers, it must have an interior sign fitted that is visible to all passengers and which displays the words 'FASTEN SEATBELTS WHILST SEATED' (or similar) and the sign must:
 - (i) if fitted to a School Bus with seating capacity for more than 24 adult passengers, must be a flashing sign that flashes no more than 30 seconds after the door is closed; and

- (ii) if fitted to a School Bus with seating capacity of up to 24 adult passengers, must be illuminated or made of a reflective material. **(Fig 5)**



Fig 5

2.19 Regulation Card

A card showing the rules for bus travel approved by the Authority must be prominently displayed in the School Bus in a card holder designed for that purpose.

2.20 Communications Equipment

- (a) The School Bus must be fitted with a functioning mobile telephone with 'hands-free' kit, two-way radio or equivalent communications device approved by the Authority, which must be switched on whenever students are being transported.
- (b) If the School Bus transports Students to education support facilities, it must have a functioning mobile telephone with 'hands-free' kit, which must be switched on whenever students are being transported.

2.21 Luggage Racks

- (a) If the School Bus has seating capacity for more than 24 adult passengers (excluding wheelchair buses) it may (optional) be fitted with luggage racks. **(Fig 6)**
- (b) Where luggage racks are fitted, the luggage racks must:
 - (i) extend as far as practicable along both sides of the School Bus from the front seat to the rear of the body;
 - (ii) have a minimum width of 450 mm with an aperture at least 200 mm wide;
 - (iii) have bars or lips along the edges and be closed at the front to prevent accidental dislodgment of school bags or other items, and have no sharp edges or corners and be fully enclosed; and
 - (iv) not have mesh racks.



Fig 6

2.22 Child Alarm

From 1 July 2013 all new School Buses must be fitted with a child alarm. The alarm must be an audible alarm that is hard wired into the vehicle where it must activate when the engine ignition switch is turned off. The alarm disabling switch must be located inside and at the rear of the vehicle in such a position that it requires the driver to walk along the aisle to the rear of the vehicle to activate the alarm disabling switch. There may be a delay of up to 30 seconds before the alarm sounds in order to provide time to conduct an inspection and disable the alarm.

The disabling switch can be either a button or a key configuration and must have a slight delay so that it can be deactivated by the driver before it goes off. The audible alarm can be either the vehicle horn or sound emitted from the child alarm. The audible alarm must be loud enough for a person to hear it from a distance of up to 10 metres and should, as a minimum, emit 95 decibels. Child alarms such as a Doran Sleeping Child Check Monitor or Ashley Group Child Alarm are considered suitable.

The operating procedure for the child alarm must be laminated and affixed in a location which is clearly visible by the driver to enable the driver to deactivate the alarm system.

PART 3 – WHEELCHAIR BUSESSES

As of 1 January 2016 wheelchair enabled busses shall be configured to have low floor ramps for access and egress without the need for a hoist wherever practicable.

The Authority may approve exclusions where the nature of the terrain for pick up and drop off does not provide safe and adequate access for a low floor bus, such as poorly formed roads or stopping points that are not conducive to ramp access.

All wheelchair busses must comply with the [Disability Standards for Accessible Public Transport](#) and Australian Standard 1428 Design for Access and Mobility.

1. Seating

- (a) Construction or alteration of a vehicle to carry wheelchairs and/or occupant restraint systems must provide the maximum normal seating compatible with the number of wheelchair and restraint positions required.
- (b) Seats and restrained wheelchairs must be facing in the direction of travel.

2. Wheelchair Lift

All work must be in accordance with:

- (a) AS 2942 Wheelchair Occupant Restraint Assemblies for Motor Vehicles, AS3856 Hoists and Ramps for People with Disabilities, AS10542 Technical Systems and Aids for disabled or handicapped persons.
- (b) the School Bus Specifications;
- (c) the WA Road Traffic Vehicles Regulations 2014;

- (d) The operating system must have provision for manual operation in the event of failure of the primary functions.
- (e) Vehicles purpose built for the installation of a wheelchair lift must have a duplicate set of batteries secured and housed in a compartment with an access hatch.
- (f) The batteries must be identical and interchangeable with those supplied by the vehicle chassis manufacturer.
- (g) The duplicate battery set must be charged by the vehicle engine charging system through a commercially procurable battery isolating device designed for the purpose. This must be arranged in such a manner as not to affect the normal vehicle operation.

3. Notices

- (a) A notice must be displayed on the inside of the wheelchair lift door, printed clearly with all instructions for the safe use and operation of the lift and must include instructions for manual operation in even of failure of the primary operations.
- (b) The notice must be protected by a durable perspex covering.

4. Restraint Tracking

- (a) Heavy duty floor-mounted tracking, of a type approved by the Authority, is to be fitted to the full length of both sides of the passenger area of the vehicle in accordance with the tracking manufacturer's instructions.
- (b) The tracking must be compatible with the types of wheelchairs and restraint systems specified by the Authority for use on the vehicle.
- (c) Anchor points to be clearly marked on the tracking surface so as to allow wheelchair clear space requirements as specified in AS 2942.

- (d) The tracking to be clearly marked to allow correct seat spacing, as specified in the ADR, when normal seats are fitted.
- (e) As of 1 July 2013, all vehicles must be fitted with 17 mm structural ply flooring.
- (f) Wheelchair access door to have a warning light and audible alarm that is activated when the wheel chair access door is opened while the park brake is disengaged.