

ENVIRO500

towards carbon neutral
greener and cleaner

42' Low Height Double Deck Transit or Commuter Bus (North America)



The 'Go-Anywhere', reduced height Enviro500 double deck ushers in a new era for urban transit or inter-urban commuter operations.

The low-height Enviro500 offers a unique combination of high capacity, outstanding maneuverability, superb passenger comfort... and an ability to operate in areas previously not suitable for double decks.

With over 80 seats and capable of carrying almost 100 passengers it brings another dimension to public transport, building on the reputation that has made Enviro500 double decks winners in New York, Las Vegas, San Francisco, Washington DC., Seattle, Vancouver, Ottawa and Toronto.

Equally at home as a city based transit bus or as a highly specified inter-urban commuter, Enviro500 features a turning diameter between curbs of just 70', beating most conventional 40' buses and totally outclassing articulated designs for maneuverability.

It's economical and easy to maintain, using popular components such as Cummins engine, Allison, Voith or ZF transmissions and Dana axles.

Wherever they operate Enviro500 double decks turn heads - and turn a real profit through increased ridership and lower operating costs.



**BUY AMERICA
COMPLIANT**


**ALEXANDER
DENNIS**

Specification

ENVIRO⁵⁰⁰

42' Low Height Double Deck Transit or Commuter Bus (North America)

CHASSIS SPECIFICATION

Engine

Cummins ISL9 - 6 cylinder turbocharged intercooled diesel engine.
Certified to EPA10 emission standard (with DPF and SCR).
Power 330BHP @ 2000rpm
Torque 1100lb-ft @ 1400rpm
Capacity 8.9 litre

OPTION

Cummins ISL9 - 6 cylinder turbocharged intercooled diesel engine.
Certified to EPA10 emission standard (with DPF and SCR).
Power 380BHP @ 1900rpm
Torque 1300lb-ft @ 1400rpm
Capacity 8.9 litre

Transmission

Allison B500 automatic 6 speed gearbox with integral retarder.
Voith D854.5E 4 speed automatic transmission and
ZF 6HP602 6 speed automatic transmissions available
as options.

Front Axle

Dana, NDS 80LF Deep drop I beam axle
17,640 lb design capacity
Lock angle 55°

Rear Axle

Dana, dropped centre. 28,665 lbs design capacity.
Ratio 4.803:1 giving top speed of 65 mph or 5.357:1 giving top
speed of 62mph depending on tyres and gearbox.

Tag Axle

Dana, T75ULF - dropped centre, 16,535 lb design capacity.

Suspension

Front - Two 12 in (305 mm) air springs, multilink location, anti-roll bar.
Two double acting dampers. Rapid kneel facility.

Rear - Four 10 in (255 mm) air springs, multilink location, anti-roll bar.
Four double acting dampers.

Tag Axle - Two 10 in (255 mm) air springs, location by trailing taper
leaf springs and Panhard rod. Two double acting dampers.

Braking System

Dana 410 x 220 'S' Cam brakes on rear axles.
Knorr Bremse disc brakes with pad wear sensor on front axle.
Asbestos-free linings.
Compressor - Wabco twin cylinder: 38.3 ins³ (636 cm³) swept volume.
Air Dryer - Wabco 1200
Service brakes - Full air operated with a separate system for front and
tag axles and the rear axle.
Parking brake - Air released, spring activated operating on drive and tag axles.
ABS Traction control

Wheels and tyres

305/70R x 22.5 XZU2LRL tubeless radial tyres, spigot mounted on
8.25" x 22.5" rims.

Steering Gear

ZF 8098 integrally powered, variable ratio steering gear.
18 in (457 mm) two spoke steering wheel.
Adjustable air operated steering column interlocked with handbrake
for added safety.

Cooling System

Split system with rear mounted radiators for charge air cooler on
nearside and engine cooler on offside - both with automatic
fan drive.

Exhaust System

Stainless steel with rear discharge, biased to the off side.

Frame

All welded of steel channel and box sections designed for full
integration with the body.

Fuel Tank

114 US Gallons (430 litres) capacity twin stainless steel fuel tanks.

Chassis Options

Pozilock fast fill fuel system
Automatic engine oil top up system
Ramp interlock
Kidde Automatic Fire Extinguishing System

BODY SPECIFICATION

Body Type

High capacity Enviro500 low floor 42' double deck with full air conditioning

Body Construction

3Cr12 stainless steel underframe structure fully integrated with chassis frame.
Extruded aluminum body frame with main exterior body panels in aluminum and aluminum composite.

Entrance and Exit

Single step low floor entry with height of 13" (10" kneeling).
Ricon powered one piece entry ramp with 600lb capacity.
Single step exit from low floor area at 12" height.
Inward opening twin leaf glider door (f), and outward sliding plug doors (r)
Note: Extra wide opening `swing` plug door option for 42' body.

Staircase

Straight forward ascending staircase offering enhanced safety features.

Heating & Demisting

Thermo King air conditioning system to upper and lower decks.
TK Model `TDD-M1` Southern (warm climate) specification cooling with R407c refrigerant.
TK Model `TDD-M2` Northern (cold climate) specification cooling with R134a refrigerant.
Floor level blown "warm air" heating system to upper and lower decks. (Northern `cold climate` spec)
Driver's area with separate warm air demisting/heating system. (TK Model MFB1)

Seating

The body framing allows for a choice of transit or 'High Back' reclining seating in various configurations.
Fixed or reclining seats to upper deck.
Fixed or reclining seats plus tip-up seats to lower deck.
Fully adjustable air suspension driver's seat. (Choice of drivers seats from `USSC` and `Recaro`)

Wheelchair provision

2 Forward facing wheelchair positions in main low floor area with Inertia Reel retractor belt restraints, (`Q Straint` ARM system) fully compliant with `ADA` (Americans with Disabilities Act)
OR
2 Rearward facing wheelchair positions in main low floor area which are fully compliant with the requirements of CAN/CSA-D435-02.

Lighting

Upper and lower decks fitted with integrated modular continuous LED lighting at ceiling `coves`.
Optional individual overhead `LED reading lamps` at each seat in upper saloon

Security System

CCTV monitoring system with cab mounted 7" 4-way split screen monitor and `standard` 4 camera system for viewing Exit Door, Upper Saloon Seating, Stairwell and a Reversing camera.
Public Address Amplifier with speakers in both upper and lower saloon ceilings.
Options for additional cameras and full Digital Recording facility.

Capacities (Typical configurations)

83 seats - 53 fixed seats upper deck with 30 fixed seats lower deck, or 25 fixed seats plus 5 tip up seats AND 16 Standing passengers.
Additional Optional seating layouts are available with capability for up to 99 passengers plus the driver.

Multi Media System

An Optional onboard `Multi Media` (Infotainment) system can be fitted with four 15" monitors,
2 upper saloon and 2 lower saloon housed in purpose designed stylish GRP cabinets.

Energy Absorbing Front and Rear Bumpers

Optional energy absorbing bumpers can be fitted at front and rear of vehicle.

Tree Guards

Tree guards fitted to front corners of upper deck.

Options

Fire suppression (full or partial)

DIMENSIONS

Model	42' (12.8m)
Overall Length	505" (12,835mm)
Wheelbase	256"+59" (6,500mm+1,500mm) (drive axle)
Overall Width	100.4" (2,550mm)
Overall Height	Refer to Alexander Dennis Inc.
Front Overhang	95" (2,415mm)
Rear Overhang	95.5" (2,421mm)

WEIGHT DATA

Model	42' (12.8m)
Front axle plated weight	15,653lb (7,100kg)
Drive axle plated weight	22,046lb (10,000kg)
Tag axle plated weight	15,653lb (7,100kg)
Gross plated weight	52,911lb (24,000kg)

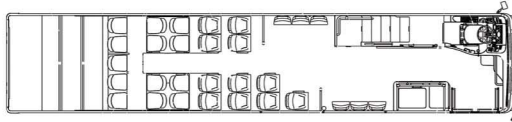
42' Low Height Double Deck Transit or Commuter Bus (North America)

SEATING CONFIGURATIONS

Capacities

Lower Deck

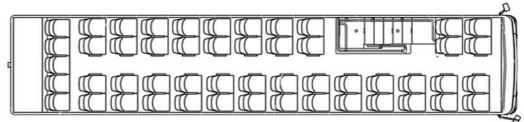
42' (Single Door) Commuter



Overall length 42' • Seated 30 or 27 + 1 wheelchair
or 24 + 2 wheelchairs

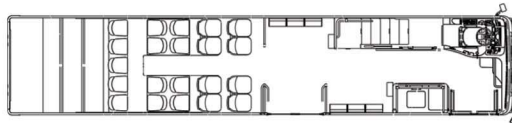
Upper Deck

42' (Single Door) Commuter



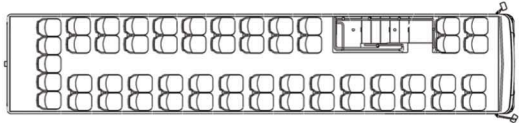
Overall length 42' • Seated 51

42' (Two Door) Transit



Overall length 42' • Seated 27 or
24 + 1 wheelchair or 21 + 2 wheelchairs

42' (Two Door) Transit



Overall length 42' • Seated 55

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Alexander Dennis' policy is one of continuous development. The right is reserved to change specifications of the models and items described. For the latest details always consult Alexander Dennis. 09/11