

Towing Preparation

When towing, the following functions are not available:

1. Power assisted steering
2. Compressed air supply
3. Recharging of the 24Volt vehicle battery

Preparations before towing the vehicle

1. Select neutral gear and apply the parking brake.
2. Remove both half-shafts (see over for details).
3. Attach vehicle to tow truck.
4. Release the parking brake.
5. Turn off the ignition and master switches to power-off the bus.
6. Where applicable, turn off the 24V battery disconnect switch within the front battery compartment.
7. Disconnect the HV system by removing the **Manual Service Disconnect (MSD)** plugs at the rear.
8. Vehicle tow can now proceed.

Turning off the bus

1: Press the lower part of the ignition switch to turn off the bus. Switch will flash.

2: Press and release the master switch to turn off the main power. Switch will flash while the bus shuts down.



Always keep road speed as low as possible and do not exceed 25MPH maximum speed at any time.

Disconnect High Voltage

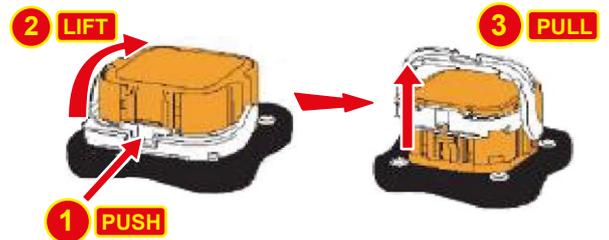
WARNING: Trained personnel only

To access the **Manual Service Disconnect** plugs on the High Voltage Junction Box, open the rear drive bay door at the rear of the bus.



WARNING:
Do not disturb the MSD plugs if the vehicle is on charge.
Stop and remove charge supply before touching.
Failure to do so may result in danger to life or damage to equipment.

On both MSD plugs, release the locking tabs before lifting the lever to 90°, then pull the plugs out of the High Voltage Junction Box.



Accessing Towing Connections

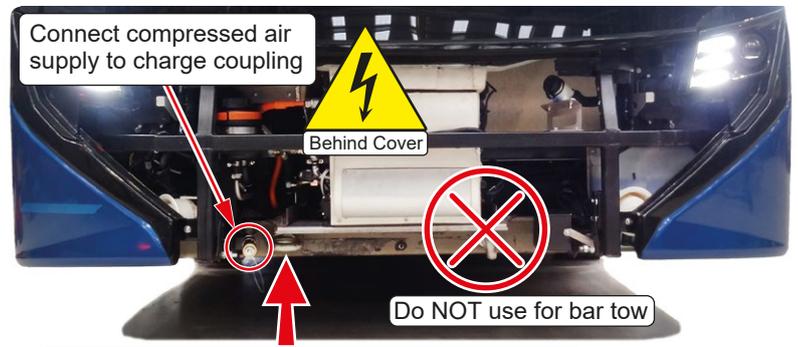
To access the towing eye socket and compressed air charge coupling, open and remove the front panel. Store the panel safely inside the bus.

The towing eye should be screwed into the tapped socket in the front crossmember.

An air coupling is located on the front of the vehicle to provide air to the braking system during the tow.



Open and lift panel out and away from the clips



Connect rigid tow bar to OFFSIDE towing eye only

For rigid bar towing only the OFFSIDE eye must be used, as indicated, to prevent damage to the front components.
The vehicle may be towed using both front towing points and an A-Frame. The vehicle may also be recovered by a lifted or suspended front end tow.

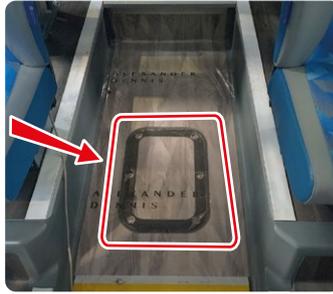
Releasing the park brake

⚠WARNING:

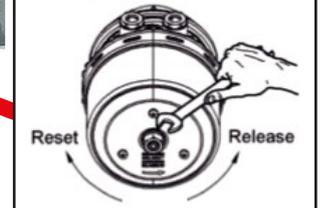
In this condition the parking brakes are completely inoperative. Wheels **MUST** be chocked to prevent the vehicle from rolling.

The electronic parking brake will NOT be disengaged with an external air supply to the air charge point, so manual release of the spring brake actuators will be necessary

Access to the drive axle actuators is via an access panel on the floor between the rear seats over the rear axle. Use an allen wrench to remove the panel. This gives access to the top of the brake actuators.



Spring Brake Release Nut



Use a 24mm spanner to wind the actuators off to release the brakes.

When the vehicle is towed, the rear half-shafts must be removed to prevent damage to the axle or drive motor.

Alternatively the propshaft may be removed or the rear axle lifted off the road

Removing drive axle half-shafts

⚠WARNING:

Proper consideration must be given to traffic conditions and the danger from passing traffic fully assessed and any necessary precautions taken before attempting to remove half shafts.

When towing, both axle half-shafts **MUST** be removed to prevent any damage to the axle or drive motor. When half-shafts are removed, the open axle ends must be temporarily plugged to prevent loss of oil.

The removed shafts should be stored safely inside the bus.

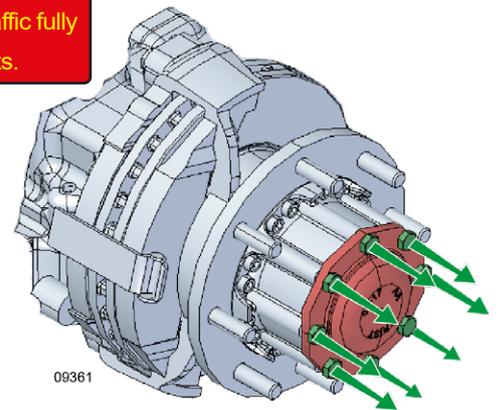
Make sure to identify which shaft came from which side. Do not swap over.

For towing purposes, there is no need to remove the wheels.

Loosen screws on the flange shaft and pull out the half shaft.

Be prepared to catch any outfall of oil from the axle during this process.

Note: When the half shafts are removed, plug or cover both hubs.



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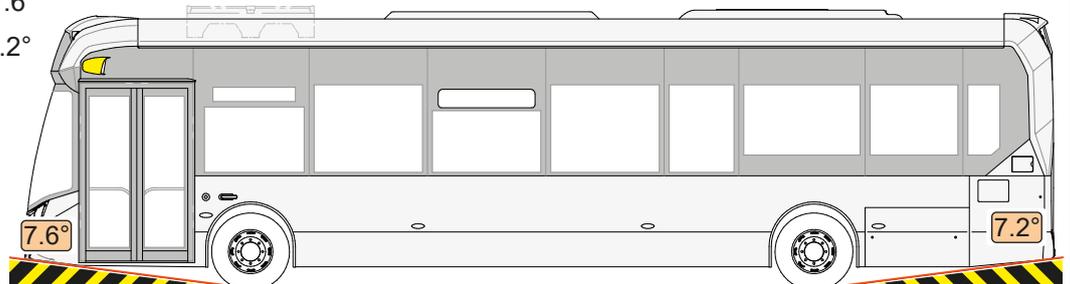
Suspended Towing

When carrying out a suspended tow in reverse, it is important to lock the steering in the "straight-ahead" position to prevent uncontrolled movement of the steering gear and front axle steering components.

The vehicle should be not be lifted beyond the figures given when using a suspended tow;

Front lift angle not to exceed 7.6°

Rear lift angle not to exceed 7.2°



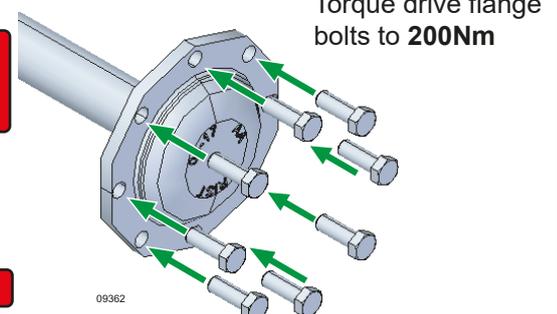
After Towing

⚠WARNING:

When the tow procedure is complete, the parking brakes must be wound back on or the wheels chocked to prevent the bus from rolling away.

See the service manual for correct procedures and torques when refitting the half-shafts to the axle. It is important to check the oil level of the axle after any towing procedure where the hubs are disturbed.

Ensure the drive shafts are installed on the correct side: See service manual



Torque drive flange bolts to 200Nm

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