Value in motion

TOURING

User's Manual

TS 45

9031-239Y

EJXX8L1, EJXU8L1

Dear User,

Welcome to the TEMSA family. Modern technology is combined with our best efforts to present you a safe, economical and comfortable ‘companion’.

With its uncompromising customer satisfaction principle and reliable after sales services team, TEMSA has prepared this User’s Manual.

The content of this manual provides necessary information, suggestions and notes to make sure that you will be acquainted with all the features of your vehicle necessary for the safest and most efficient way of driving.

Please read carefully.

To Win and Improve Together in All Times...

TEMSA Family

00 CONTENT

General Information 7
1.1 Preface 8
1.1.1 Aim of this Users Manual 8
1.1.2 Intended Use of Vehicle 8
1.1.3 Operational Safety 9
1.1.4 Using Mobile Phones and Radio 12
1.1.5 Use of Genuine Parts and Accessories 12
1.1.6 Service and Maintenance 12
1.1.7 Getting the Most Out of Your Vehicle 13
1.2 Symbols 15
1.3 Warning Labels and Warning Signs 16
1.4 Usage of Heater 24

Vehicle Information 27
2.1 Vehicle Certification Plate (Location) 28
2.2 Vehicle Specifications 29
2.3 Instrument and Control Panels 31
2.3.1 Left Control Panel 32
2.3.2 Instrument Panel 36
2.3.3 Steering Wheel Control Group 48
2.3.4 Lateral Control Panel 52
2.3.5 Right Control Panel 56
2.4 Keys 59

Vehicle Interior 61
3.1 Passenger Seats 62
3.2 Seat Belts 63
3.3 Passenger Control Group 65
3.5 Emergency Situation Equipments 66
3.6 Accessories 73

Driving 83
4.1 Pre-Driving 84
4.1.1 Driver's Seat Adjustment 86
4.1.2 Driver's Seat Belt 90
4.1.3 Rear View Mirror Sight Adjustment 90
4.1.4 Steering Wheel Adjustment 90
4.1.5 Checking Control Switches 91
4.1.6 Checking Indicator and Warning Lamps 91
4.1.7 Checking Air Pressure 91
4.2 Driving 93
4.3 Emergency Situations 95
4.3.1 Towing the Vehicle 97

Headlamps and Lamps 101
5.1 Internal Lamps 102
5.2 External Lamps 103
5.3 Illumination Lamps 105
5.4 Headlamps 106

Doors and Lids 109
6.1 Front Door 110
6.2 Lids 111

Engine 121
7.1 General Information 122
7.2 Expansion Tank 122
7.3 Drive Belts 124
7.4 Engine Oil Dipstick 125
7.5 Air Filter 126
7.6 Steering Wheel Hydraulic Oil Tank 126
7.7 Engine Control Panel 127
7.8 DPF Regeneration 128
7.9 Engine Compartment Automatic Extinguisher System 129

Transmission **131**
8.1 Automatic Transmission 132

Suspension **137**
9. Suspension 138
9.1 Kneeling-Lifting 139
9.1.1 Front Kneeling 139
9.1.2 Lifting 140

Tires **143**
10.1 Tires 144
10.2 Tire Pressure 144
10.3 Checking Tire Pressure 145
10.4 Snow Tires 145
10.5 Snow Chains 146
10.6 Changing Tires 146
10.7 Shifting Tires 152

Brakes **155**
11. Brakes 156
11.1 ABS 156
11.2 Parking Brake 157
11.3 Retarder (Optional) 159
11.4 ASR (Acceleration Slip Regulation) 160
11.5 Engine Brake 160

Electrical Systems **163**
12.1 Main Battery Cut-off Switch 164
12.2 Battery 164
12.3 Jump Start 165
12.4 Relay Panel 166
12.5 Fuse Box 166
12.6 ECM 167
12.7 Circuit Braker Reset 168

Maintenance **171**
13.1 Checking Engine Oil Level 172
13.2 Checking Condition of Engine Oil 172
13.3 Checking Condition of Transmission Oil 173
13.4 Air Filter Maintenance 174
13.5 Replacing Air Filter 175
13.6 Fuel Filter Maintenance 176
13.7 Expansion TankMaintenance 176
13.8 Addition of Distilled Water 177
13.9 Usage of Antifreeze 178
13.10 Radiator Maintenance 178
13.11 Air Conditioner Maintenance 179
13.12 Cleaning the Filters 179
13.13 Checking the Drive Belt Tension 180
13.14 Cleaning Vehicle Exterior 180
13.15 Cleaning Vehicle Interior 181
13.16 Lavatory Waste Tank Maintenance 182
13.17 Corrosion Protection 182

Index **186**



01 GENERAL INFORMATION

1.1 Preface
1.1.1 Aim of this User's Manual
1.1.2 Intended Use of Vehicle
1.1.3 Operational Safety
1.1.4 Using Mobile Phone and Radio
1.1.5 Use of Genuine Parts & Accessories
1.1.6 Service and Maintenance
1.1.7 Getting the Most Out of Your Vehicle
1.2 Symbols
1.3 Warning Labels and Warning Signs
1.4 Usage of Heater

1.1 Preface

1.1.1 Aim of this Users Manual

This User`s Manual is prepared to use your vehicle in the safest and the most efficient way.

Safety instructions given in this User's Manuals are intended to protect persons and properties.

Therefore, before operating the vehicle or before carrying out any maintenance work, read this manual completely and carefully.

Any injury or damage arisen from non-compliance with the safety instructions given in this manual is the responsibility of the vehicle's owner.

Should the vehicle be sold, the User's Manual must be delivered to the new owner of the vehicle.

It is assumed that all the information and safety instructions given in this manual, can be understood clearly by the owner and the user of the vehicle who have sufficient occupational experience and knowledge.

Please contact authorized TEMSA Service if you have difficulty in understanding explanations in the user's manual.

In addition to the information provided within this manual, all prevailing national regulations must be observed.

This manual is intended to be used commonly for all variants of TS 45, therefore some properties of your vehicle may not comply with those indicated in this manual.

Also illustrations used in this manual are intended to be shown procedures, usage and other important subjects for the user. Therefore they may have some differences than the original views.

1.1.2 Intended Use of Vehicle

The vehicle is designed for transportation of passengers and their luggage only.

Passenger capacity according to seat arrangement is indicated in the passenger capacity label and registration documents of the vehicle.

The vehicle cannot be used except for its design purpose.

The owner of the vehicle will be held liable for any other use beyond this design purpose.

WARNING

Technical information and properties of the vehicles stated within this User's Manual are valid on the date of issue. TEMSA, reserves the right to make any necessary changes to the features of its products without giving any advance notice.

1.1.3 Operational Safety

Before driving, take all necessary safety and environmental aspects into consideration. Ensure that the vehicle is in technically perfect condition.

If you believe that your vehicle has a fault which could cause a crash, injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying TEMSA Global.

If NHTSA receives similar complaints, it may open an investigation, and if it discovers that a safety problem exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you and your dealer, or TEMSA Global.

To contact NHTSA, you may either call the Auto Safety Hotline toll-free at 1-(800)-424-9393 (or 366-0123 in Washington, D.C. area) or write to: NHTSA, U.S. Department of Transportation, Washington, D.C. 20590. You can also obtain other information about motor vehicle safety from the Hotline.

Observe all safety instructions and warnings displayed on the vehicle. The vehicle owner must ensure the presence and legibility of all warnings and information signs throughout the vehicle's service life.

Any alteration of the vehicle may interfere with safety features built into the vehicle and may lead to an accident resulting in serious injury or death.

Throughout this booklet, left is defined as the driver's side of the vehicle, and right as the passenger's side of the vehicle.

Fuel Quality

The tank must not be filled with more than 95 % of tank volume. The legal capacity is displayed on the fuel filler door outside. Use only ultra low sulfur diesel (ULSD).

California Proposition 65 Warning NOTICE!

Engine exhaust, some of its constituents, and certain vehicle components contain or emit chemicals known to the State of California for causing cancer and birth defects or other reproductive harm. In addition, certain fluids contained in vehicles and certain wear components contain or emit chemicals known to the State of California for causing cancer and birth defects or other reproductive harm.

Production

Whether in production or repair, TEMSA Global always relies on environmentally friendly technology. A waste-management system has been introduced to reduce the amount of waste while simultaneously increasing the recycling rate. Waste water leaves the TEMSA Global factory only after being appropriately treated.

Any fault messages are indicated to the driver by the "Check Engine" warning light and the on-board computer.

Coverings

Do not affix any coverings (e.g. films or "stone guards") in the area of the headlights and air intakes. Damage due to excessive temperatures and abrasion could result.

Wear of the different components of the braking system, such as brake pads or brake discs, depends to a great extent on the individual driving style and the conditions of use and therefore cannot be expressed in actual miles on the road. The values communicated by TEMSA Global are based on normal operation adapted to traffic.

WARNING

- Danger of burning.
- The tailpipes of the exhaust system can become very hot.
- Do not touch this area.
- Look out for children.
- Parts of clothing can become damaged.

For more information refer to Section 7 (Engine).

WARNING

- There is risk of accident if you set or operate the onboard computer, radio, navigation system, telephone or other equipment when driving. This could distract you from the traffic and cause you losing control of the vehicle resulting in serious personal injury or death.
- Operate the components while driving only if the traffic situation allows you to do so safely.
- Carry out any complicated operating or setting procedures only while the vehicle is stationary.
- Take prevailing national regulations into consideration.

WARNING

Engine Exhaust

- Engine exhaust is dangerous if inhaled. Engine exhaust fumes have many components which you can smell. They also contain carbon monoxide (CO), which is a colourless and odorless gas. Carbon monoxide can cause unconsciousness and even death if inhaled.
- Never start or let the engine run in an enclosed, unventilated area.
- It is not recommended to sit in your vehicle for prolonged periods with the engine on and the vehicle not moving.

National Highway Transportation & Safety Administration (NHTSA)

If you feel your new TEMSA Global has a safety issue that could cause a crash or personal injury, you should immediately inform the National Highway Traffic SafetyAdministration (NHTSA) describing the problem. You should also notify TEMSA Global immediately so that they can evaluate the situation or condition.

If NHTSA receives more information of similar nature, it may open an investigation regarding this matter. If NHTSA determines there is a common safety defect in a group of buses, it may issue an order for a recall. NHTSA will not, however, become involved in an individual issue between the owner/operator, distributor and/or TEMSA Global.

To contact NHTSA, call the Auto Safety Hotline toll free at 1.800.424.9393 (outside the Washington, DC area). In the Washington, DC area, call 366.0123. The NHTSA may also be contacted in writing to the following address:

NHTSA

US Department of Transportation
Washington, DC 20590

Before Placing the Bus in Service

It is the responsibility of the bus Owner / Operator to ensure compliance with all federal, state and local regulations for school bus operation and equipment. As part of a daily pre-trip inspection, the Driver should consider it his/her responsibility to verify that the vehicle is in satisfactory working order and that all emergency equipment is in place, fully stocked (First Aid Kit), up-to-date (Fire Extinguisher), and in proper working condition.

Inspection guidelines from individual state inspection manuals (such as Commercial Driver's License pre-trip inspection procedures) take precedence over those found in this manual. Guidelines found herein are in addition to those in your state's inspection requirements.

The Driver is responsible for inspecting that the loading area is clear before stopping to load passengers. The Driver must ensure that all unloaded passengers are clear before moving the bus.

Check the service brake adjustment.
Check the park brake adjustment on units equipped with hydraulic brake systems.
Check the torque on all body "tie-down" bolts.
Check the engine oil level.
Check the transmission fluid level.
Check the engine coolant level.
Check the air pressure in all tires.
Check the torque on the driveline universal joint straps.

1.1.4 Using Mobile Phones and Radio

Mobile phones and radio communication devices may distract the driver during driving. Therefore it is recommended not to use such devices.

Furthermore, usage of mobile phones or other devices transmitting electromagnetic waves must comply with prevailing national regulations.

Before adding sound equipment, check with your dealer and be sure to check Federal rules covering mobile radio and telephone units.

1.1.5 Use of Genuine Parts and Accessories

For a safer and longer service life of the vehicle, use only TEMSA genuine spare parts, accessories or parts which have been approved and tested by TEMSA.

All genuine parts have been approved by TEMSA by means of testing their reliability, endurance and safety factors. TEMSA does not take any responsibility for any injury or damage due to use of non-approved third party products.

Any alteration of the vehicle may interfere with safety features built into the vehicle and may lead to an accident resulting in serious injury or death.

1.1.6 Service and Maintenance

Carry out all maintenance and service work completely and within the specified intervals as described in this manual and in the warranty and service documentation.

The service and maintenance operations should be carried out by authorized services and be in compliance with TEMSA directives.

You should keep a record with all parts receipts and list the mileage and the date of any service work you perform and/or authorized service performed.

Incomplete or improper servicing may cause problems in the operation of the vehicle. If you are in doubt about any servicing, have it done by your authorized TEMSA Global dealer. Improper maintenance during the warranty period will jeopardize your TEMSA Global warranty coverage.

1.1.7 Getting the Most Out of Your Vehicle

1 Maintenance

The state of the art engine technology means only 1-2 maintenance checks are required each year. Please review your warranty and service manual for detail.

Optimum lubrication and tuning result in a 3 % to 5 % improvement in fuel economy.

2 Engine

Optimum fuel economy is reached at max. tractive force range of your engine.

3 Axle Alignment

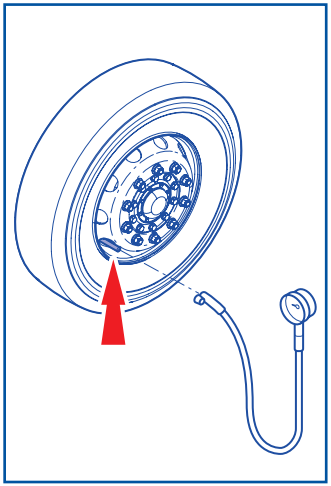
Incorrect axle alignment can impact consumption by up to 3%.

4 Tire Pressure

It is well known that a low tire pressure increases fuel consumption by up to 5%. If the tire pressure is 20% below the correct pressure, the rolling resistance will be about 10% higher and the fuel consumption will be about 5% higher.

Check the pressure before driving the vehicle when tires are cold. Remember as the ambient temperature changes raise/fall 10ºC / 50ºF; tire pressure changes increase/ decrease 0.2 bars / 2.9 psi.

5 Take a Break from Idle Time



Cutting idle time from 50% to 25% can improve fuel economy by up to 4%.

SAVE THE ENVIRONMENT

Excessive idling will increase the amount of particles released to the environment. Avoid exessive idling.

Limit the warm up time; Excessive idling wastes fuel, adds contaminants to the oil, and adds carbons to the combustion chamber.

Idling engines use about 0.39 gal /1.5 liters of diesel per hour. Engine idling shutdown pays off in preventing unnecessary fuel consumption of stationary vehicles.

6 Gearbox (Manual Operation)

Practice progressive shifting. You do not have to, but overtaking the shifting is always possible:

Change gears earlier (even lower engine speeds) Shift up as soon as you have enough rpm to grab the next higher gear.
Hold the gear (driver's assessment)

No need to increase revs!

7 Driving Steadily

Continuous speed adjustments cost fuel. Adaptive cruise control is an effective aid to keep pace with the other traffic at minimum fuel penalty.

Use the cruise and slow down

- Electronic cruise control saves fuel, makes driving easier.
- Think twice about the cruise speed you choose.
- Every mile per hour over 55 mph adds almost 0.66 gal/ 2.5 liters more consumption per 62.1 miles.
- Remember, torque moves the load
- Torque moves the load; horsepower determines how fast it moves.
- Staying in the preferred torque range keeps the engine operating more efficiently and puts more profit in your pocket.

1.1.7 Getting the Most Out of Your Vehicle

8 Driving on a Slope

Hold speed at the start of the slope: Throttle up to full load gradually.

Don't change gear if your vehicle "holds its speed".

Do not be afraid to let the engine rpm pull back on a gradient. When you are pulling a long gradient, be patient.

Letting the engine rpm pull back on gradients will not hurt your engine.

9 Use the Energy

Let the mass work for you and make the most of momentum.

When no throttle is given, drive in the highest gear (low internal resistance). Look further ahead; avoid unnecessary braking; drive consistently.

Let momentum of your vehicle work for you to save fuel.

Coasting in gear allows all the fuel to return to the tank.
Kick out the cruise control about a couple miles before you exit, stay in gear as long as possible, and watch how far you can coast for free.

Do not overload the vehicle with energy.

Release throttle in good time (weight of your vehicle represents a lot of energy when it moves)

When throttle is released your consumption is ZERO.

Do not build up too much speed and then correct it.

The Whole Makes the Difference

An efficient driveline alone does not guarantee the best return on fuel in everyday use. It is the total of different factors, like the overall configuration of the vehicle, the maintenance condition and the driving style that are decisive for the fuel efficiency.

In general less weight means more payload or less fuel. If aluminum wheels are fitted, the gain also includes better looks of the vehicle and lower maintenance costs.

Rules of thumb

Remember! Max. tractive force is defined between certain rpm range for your engine in which optimum fuel economy is reached. Tractive force at lower rpm limit of this range is the same as the highest limit of this range, resulting in high driving comfort at low revs.

SAVE THE ENVIRONMENT

Lowering the fuel consumption will reduce the exhaust emissions and will protect the environment.

0.6 mph (1 km/h) faster = 1% higher fuel consumption:
- Driving at 85 instead of 80: +5%
- Driving at 90 instead of 85: +5%

Additional energy consumers have an impact as well:
- Air conditioning: 2%
- Extra Lights on: 1%-3%

Driving Performance

3 basic rules to drive with optimum fuel economy:
- Use as little energy as possible to get the vehicle up to speed.
- Appropriate revs.
- Appropriate gears.

Rate the energy required

Do I really need to accelerate that much in this situation?

Use the vehicle speed.

Weight of your vehicle represents a lot of energy when it move, use that energy.

Summary

Anticipate:
- Release throttle in good time.
- Prevent unnecessary braking.
- Drive no faster than is necessary at a given time.

1.2 Symbols

Operating instructions in this manual include the following symbols, warning words and signs:

OPTION
This symbol indicates that mentioned property of the vehicle is optional. (Model specifications, models specified to the country, optional equipment).

INFORMATION
This symbol is used when important additional information is given.

VISUAL INSPECTION
This symbol is used to inform the user that the complementary indicator lamp would be lit after carrying out the mentioned instruction.

WARNING
This symbol is used in conditions which may cause damage or injury if necessary measures are not taken.

AURAL INSPECTION
This symbol is used to inform the user that the complementary sound can be heard after carrying out the mentioned instruction.

HOT SURFACES
This symbol is used to indicate the risk of burns in case of contact with hot surfaces.

MECHANICAL MAINTENANCE
This symbol is used to indicate conditions where mentioned instruction should be carried out by a mechanic.

ROTATING PARTS
This symbol is used to indicate conditions where the user may be hit and injured by rotating parts.

DO IT YOURSELF
This symbol indicates that mentioned instruction can be carried out by the user.

DOCUMENT REFERENCE
See also other manuals delivered for information.

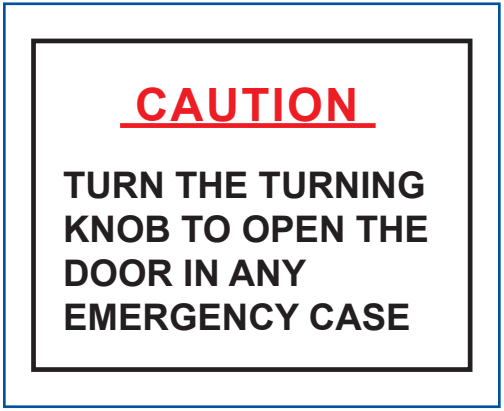
SAFETY GLOVES
This symbol is used to indicate conditions where it is necessary to wear safety gloves against injuries due to maintenance work.

CONSULT AUTHORIZED SERVICE
This symbol is used in conditions where authorized TEMSA Service should be consulted for described maintenance, repair and inspection work.

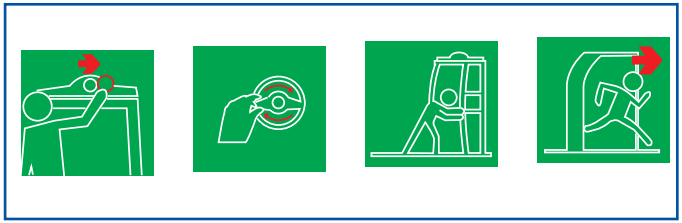
SAVE THE ENVIRONMENT
This symbol is used to indicate the environment should be considered when conducting this task.

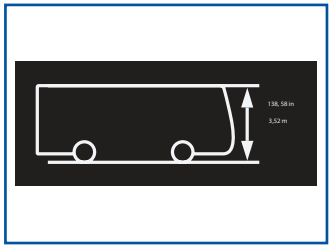
1.3 Warning Labels and Warning Signs



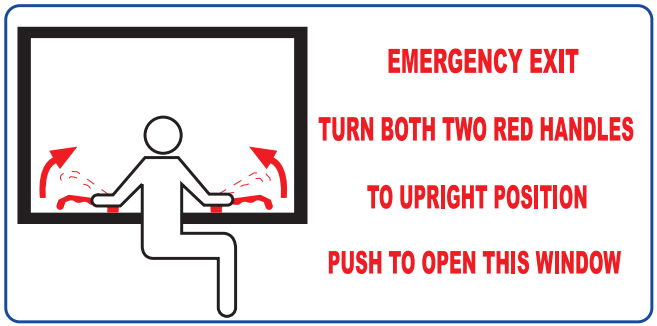


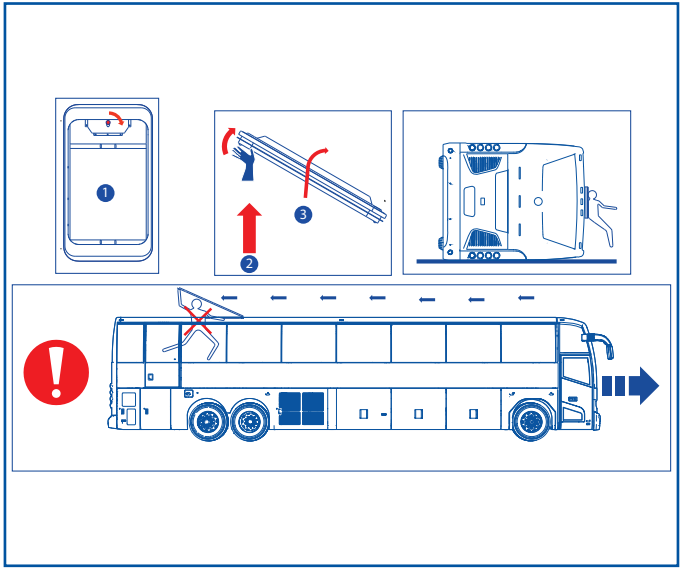


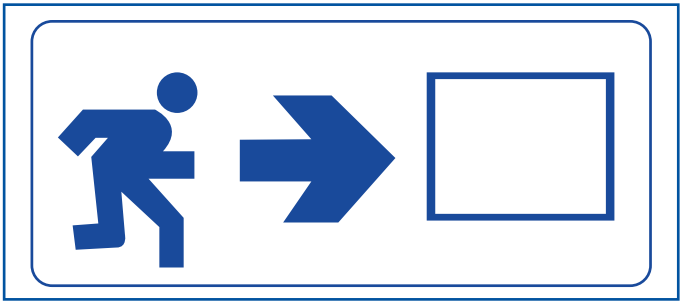




1.3 Warning Labels and Warning Signs







IN AN EMERGENCY

1-PUSH UP

2-PULL THE WHITE KNOB

3-OPEN THE LID

EMERGENCY EXIT

1.3 Warning Labels and Warning Signs

WARNING
THIS VEHICLE IS EQUIPPED WITH A BACK-UP ALARM
ALARM MUST SOUND
WHEN BACKING, OPERATOR MUST MAKE CERTAIN ALARM IS WORKING BEFORE OPERATING THIS VEHICLE

CAUTION
USE CROSS VIEW MIRRORS TO VIEW PEDESTRIANS WHILE BUS IS STOPPED. DO NOT USE THESE MIRRORS TO VIEW TRAFFIC WHILE BUS IS MOVING. IMAGES IN SUCH MIRRORS DO NOT ACCURATELY SHOW ANOTHER VEHICLE'S LOCATION (REF. FMVSS. 111)

FOR PASSANGERS SAFETY FEDERAL LAW PROHIBITS OPERATION OF THIS BUS WHILE ANYONE IS STANDING FORWARD OF THE WHITE LINE

WARNING
DO NOT OPERATE THE BUS WITH AN AIR PRESSURE BELOW 100 PSI

PRESS BRAKE PEDAL BEFORE SELECTING GEAR

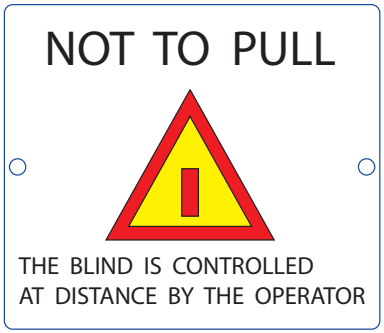


Use of electronic equipment in the proximity of the shifter may cause malfunction

HAND BRAKE RELEASE
USE TEMPORARY ONLY
DURING BRAKE FAILURE

ATTENTION
THIS VEHICLE IS FITTED WITH AN ADVANCED HVAC SYSTEM.
TO ENSURE MAXIMUM PASSENGER COMFORT KEEP DOOR CLOSED DURING STAND STILL.

1.3 Warning Labels and Warning Signs











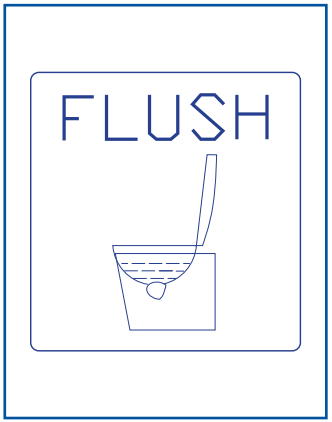




1.3 Warning Labels and Warning Signs

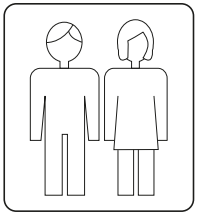


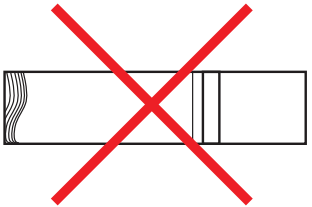




DO NOT USE
THIS AREA FOR
STORAGE







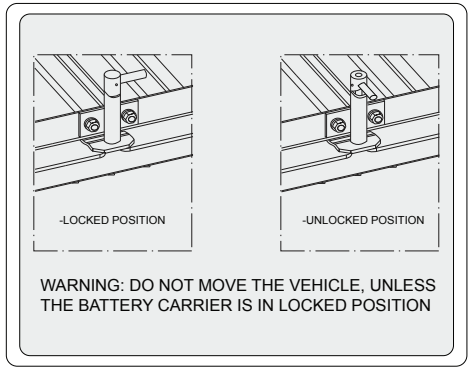
PULL THE HANDLE
TO RELEASE
THE BUMBER

THE TANK CANNOT BE FILLED
WITH A QUANTITY OF FUEL
THAT EXCEEDS 95%
OF THE TANK VOLUME.
THE LEGAL CAPAC

1.3 Warning Labels and Warning Signs

IMPORTANT

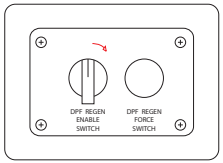
SERVICE INFORMATION
USE REFRIGERANT
R-134a ONLY
The System Contains R-134a Refrigerant
IN CONJUNCTION WITH A POLYOL ESTER LUBRICANT
SERVICE BY CERTIFIED TECHNICIAN ONLY



Lavatory waste must be disposed of into appropriate and approved Disposal or Dump

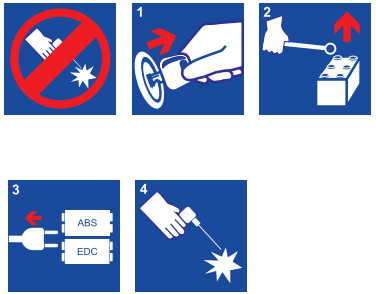
D Stations only.

Failure to do so may result in serious criminal and/or civil fines, penalties and/or incarceration

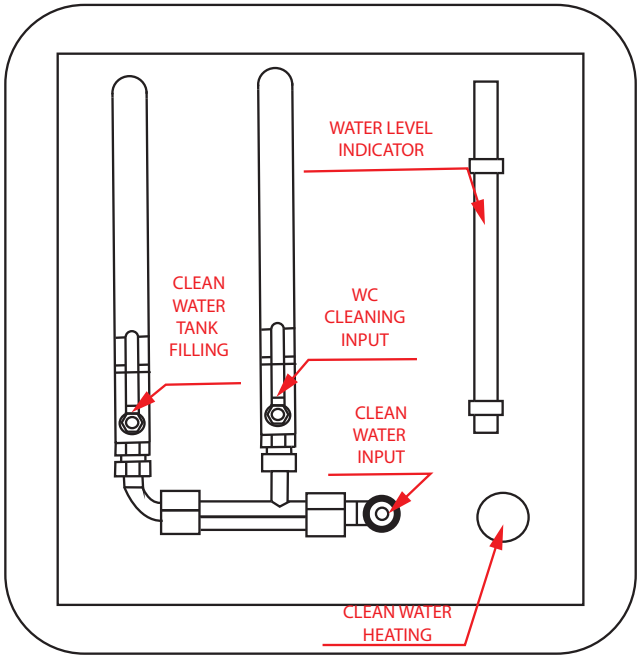


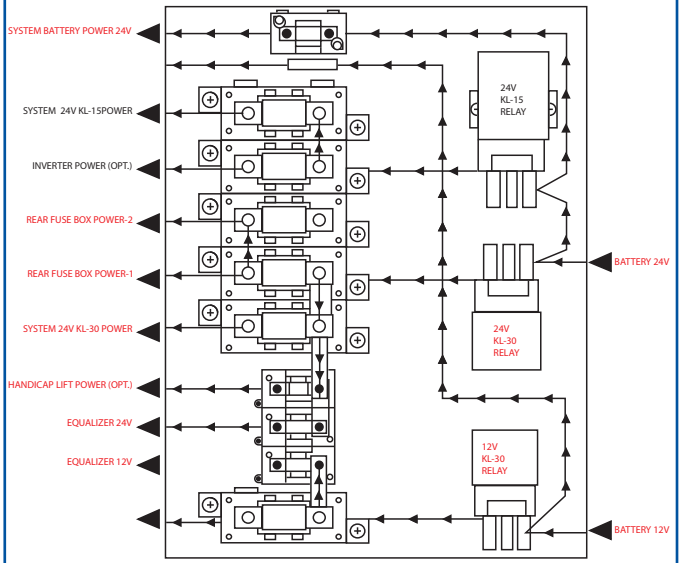
ATTENTION

EXCEPT FOR EMERGENCY CONDITIONS
BATTERY MAIN SWITCH
CAN ONLY BE TURNED-OFF
AFTER 2 MINUTES OF TURNING
THE IGNITION KEY OFF



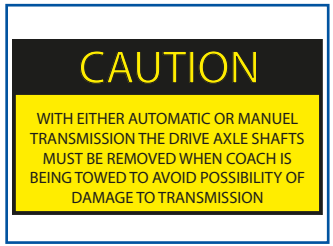
1.3 Warning Labels and Warning Signs



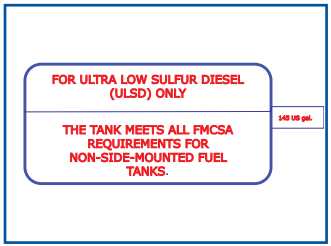


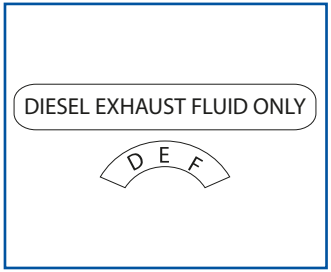
1.3 Warning Labels and Warning Signs



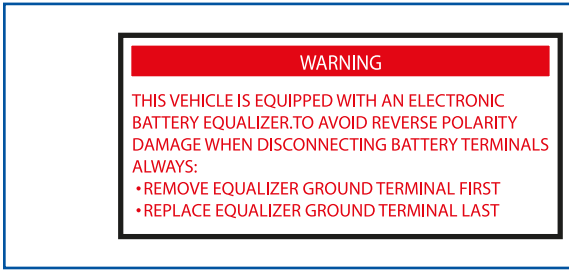


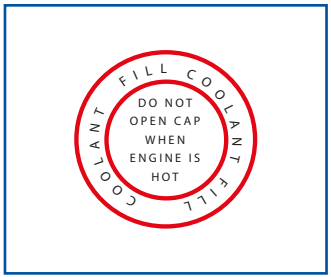




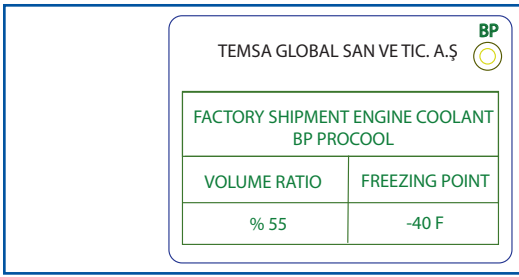




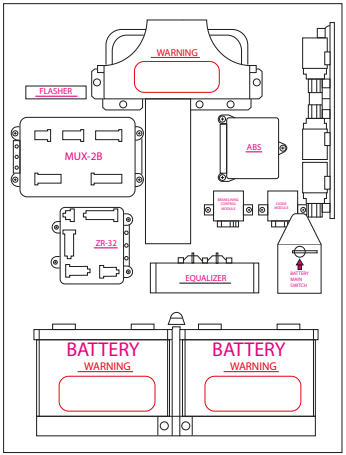








1.3 Warning Labels and Warning Signs



WARNING

DO NOT WORK IN THIS ENGINE COMPARTMENT WHILE ENGINE IS RUNNING.BE SURE STOPPING THE ENGINE BEFORE WORKING IN THIS AREA.

STAND CLEAR OF EXHAUST AND BELTS WHEN REAR STATING.

CAUTION

WITH EITHER AUTOMATIC OR MANUEL TRANSMISSION THE DRIVER AXLE SHAFTS MUST BE REMOVED WHEN COACH IS BEING TOWED TO AVOID POSSIBILITY OF DAMAGE TO TRANSMISSION

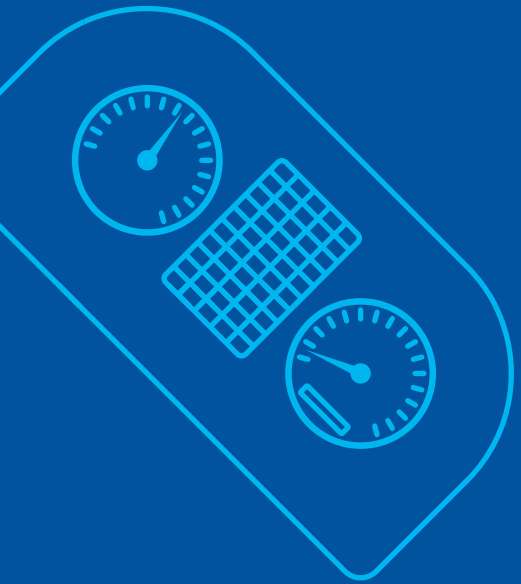
1.4 Usage of Heater

The heater must not be operated:

RISK OF FIRE, EXPLOSION & ASPHYXIATION

- At filling stations and other refueling points.
- If the heater or its exhaust outlet is in locations where inflammable vapors or dust may form (e.g. close to fuel, coal, wood dust or cereal storage facilities).
- If the heater or its exhaust outlet is located close to inflammable materials for example dry grass and leaves, cartons, paper etc.
- In enclosed areas (e.g. garages, hall without a suck off facility), not even if the digital timer or Tele Start is used.
- If the exhaust outlet of the heater is partial or fully obstructed (e.g. by soil or snow, as it may occur while move the vehicle backwards).

THIS PAGE INTENTIONALLY LEFT BLANK



02 VEHICLE INFORMATION

2.1 Vehicle Certification Plate
2.2 Vehicle Specifications
2.3 Instrument & Control Panels
2.3.1 Left Control Panel
2.3.2 Instrument Panel
2.3.3 Steering Wheel Control Group
2.3.4 Lateral Control Panel
2.3.5 Right Control Panel
2.4 Keys

2.1 Vehicle Certification Plate (Location)

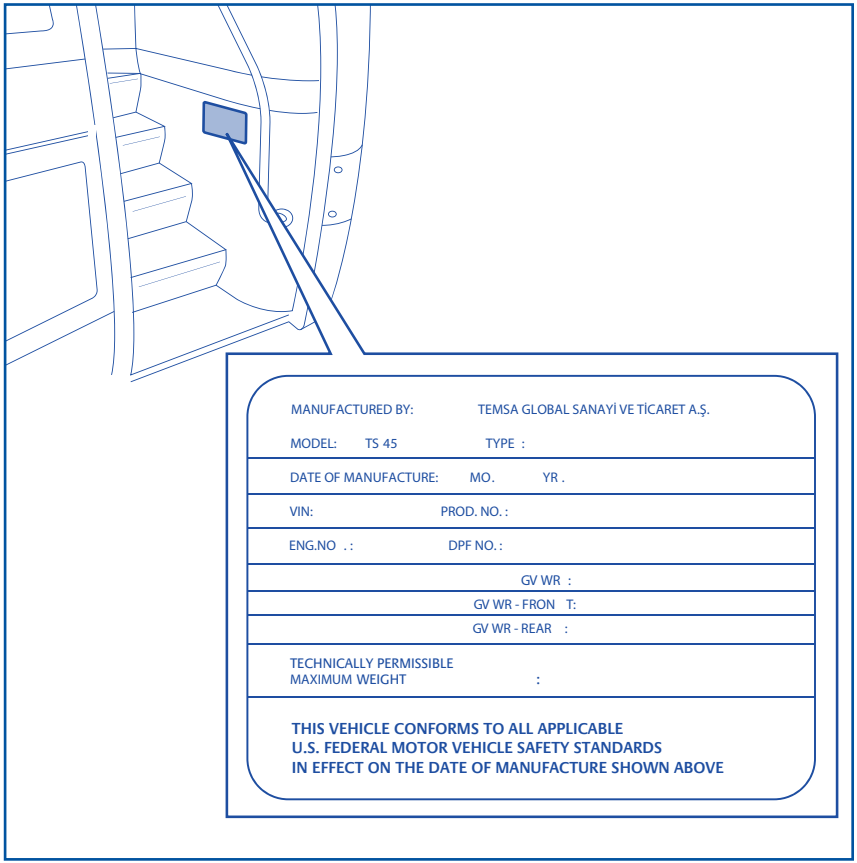
Vehicle certification plate is located on the area shown in the illustration.

INFORMATION

Information on the label enables faster road assistance and spare parts services.

WARNING

Do not remove, deface or cover the certification plate.



2.2 Vehicle Specifications

Weight and Capacity	
Gross Vehicle Weight	23360 kg / 51500 lbs
Fuel Tank	757 lt / 200 gal
Luggage compartment	13 m³ / 460 ft³

Tires and Rims	
Model	GOODYEAR
Tires	315/80 R22.5
Rims	9x22,5 inch
Performance	
Turning Circle	482,4 inch / 12253 mm

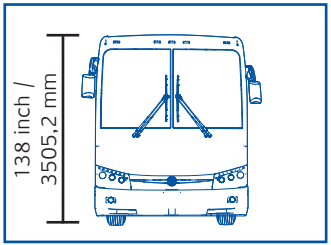
Engine (CUMMINS)		
Model	ISX EPA 13 345 HP	CUMMINS ENGINE,ISX 12 EPA15 425HP
Type	Diesel	Diesel
Number of Cylinders	6 in line	6 in line
Maximum Power (Hp)	425	425
Maximum Torque (lb-ft/rpm)	1650/1100	1650/1100

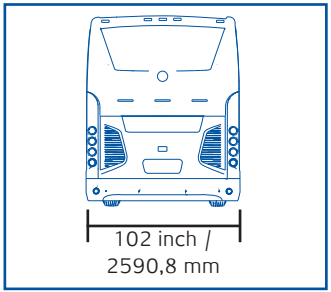
Suspension	
Front	Stabilizer
	2 shock absorbers
Rear	Stabilizer
	4 shock absorbers

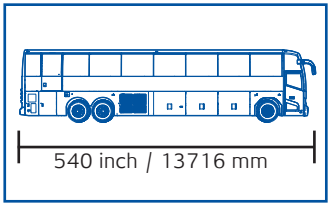
Transmission (ALLISON)	
Model	B500
Type	Automatic

2.2 Vehicle Specifications

Dimensions	
Length	540 inch / 13716 mm
Width	102 inch / 2590,8 mm
Heigth	138 inch / 3505,2 mm
Interior Saloon Height	75 inch / 1905 mm
Wheelbase	310,8 inch / 7894,3 mm
Front Extension	78,5 inch / 1925,3 mm
Rear Extension	75,8 inch / 1993,9 mm







2.3 Instrument and Control Panels

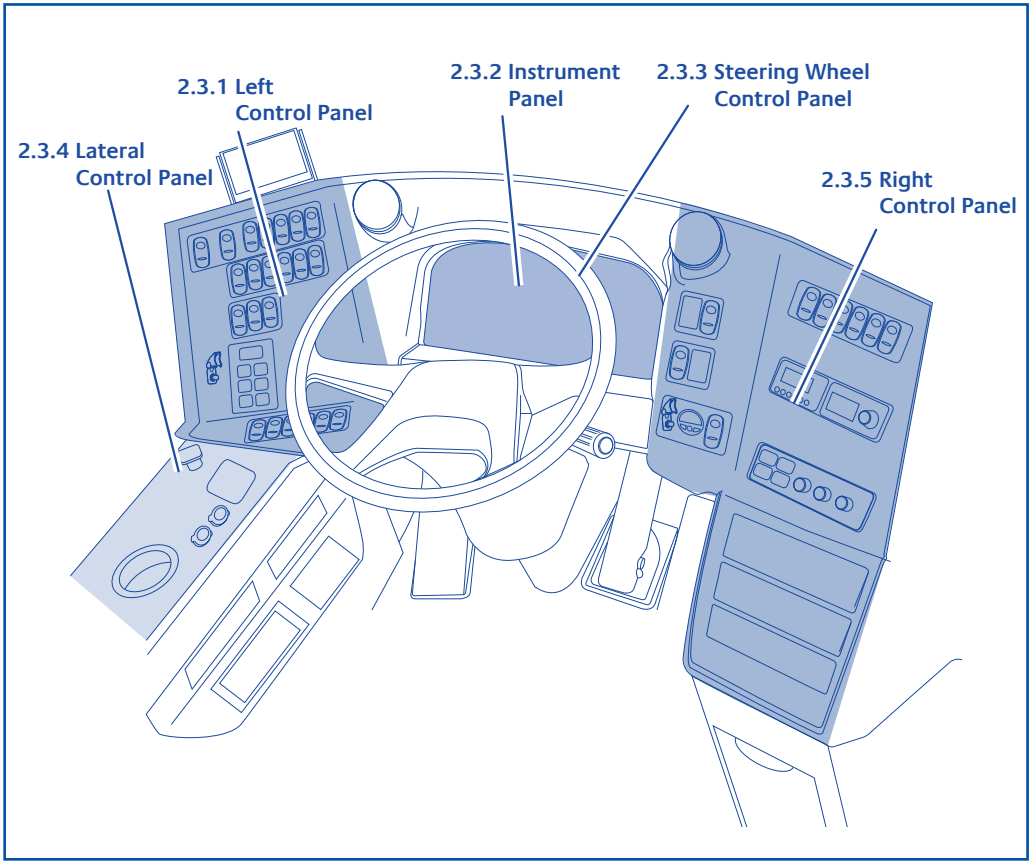
2.3.1 Left Control Panel

2.3.2 Instrument Panel

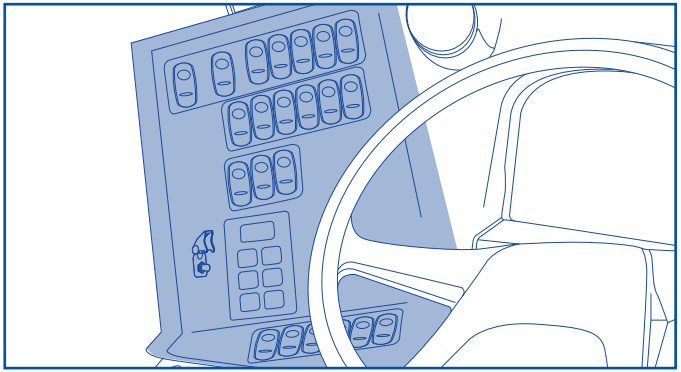
2.3.3 Steering Wheel Control Group

2.3.4 Lateral Control Panel

2.3.5 Right Control Panel

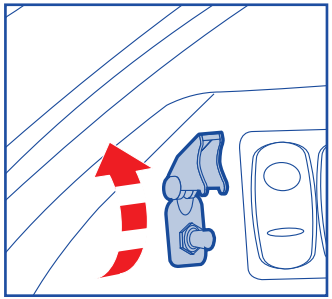


2.3.1 Left Control Panel



Emergency Stop Switch

Lift up the red protection cap and activate the switch.



WARNING

Never use “emergency stop switch” while driving. Use only when the vehicle is stationary and parking brake is activated.

INFORMATION

Closing the red cover cap pushes the switch forward and holds it in position.

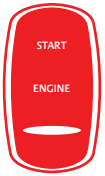
Switching off the Engine by Emergency Stop Switch

When the switch is activated, the engine stops, gear is engaged into neutral automatically, hazard warning flashers start flashing and aisle illumination lamps, step lamps light on. None of the brake units apart from the foot brake, can be used till the switch is released.

Reset the switch by switching it back to its original position.

INFORMATION

Except for “Emergency Stop Switch”, all switches except “Central Locking Switch” and “Dimmer Switch” stated in this section have LED’s on them which indicate that function is on or off.



Start Switch
Runs the engine.



ACC Switch
Activates and deactivates the battery main switch. Push the upper side to switch for give energy from battery to electrical system. Push the lower side to switch for deactivate the battery and stop the engine.



ASR Disable Switch
Deactivates ASR (Acceleration Slip Regulation) System.

2.3.1 Left Control Panel



Blind Left Switch

Press upper side of the switch to move the sun visor upwards. Press lower side of the switch to move it downwards.



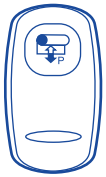
Central Locking Switch

Press lower side of the switch to lock all luggage hatches. To unlock, press upper side of the switch.

WARNING

Central locking system cannot open/close luggage hatches. It is used for only locking/unlocking.

Only luggage hatches are locked/unlocked by the central locking system. Other hatches cannot be locked/unlocked by central locking system.

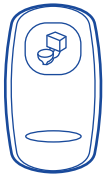


Blind Right Switch

Press upper side of the switch to move the sun visor upwards. Press lower side of the switch to move it downwards.

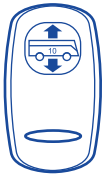
WARNING

Using passenger side sun visor limits the driver's view on the right rear view mirror. It may cause accidents.



WC Active Switch

Press upper side of the switch to activate toilet system. When it is activated, toilet lamps light up, toilet fan starts running and all switches inside the toilet are ready for use.

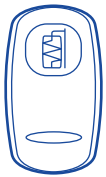


Kneeling Lifting Control Switch

Press lower side of the switch to perform kneeling function.

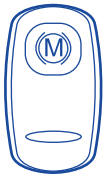
INFORMATION

- Front body height decreases as long as the lower side of the switch is pressed.
- Press upper side of the switch to increase front body height.



Mirror Heating Switch

Press upper side of the switch to activate rear view mirror heater. When it is activated, the heater inside the mirror operates for only 10 minutes. Pressing again this switch within 10 minutes, deactivates the mirror heating system.

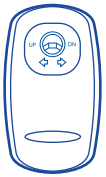


Engine Brake On/Off Switch

Press upper side of the switch to activate "Engine Brake Level" switch.

INFORMATION

To activate engine brake level switch, first press upper side of the engine brake switch.



Steering Control Switch

Press upper side of the switch to release steering wheel lock mechanism.

WARNING

- Steering wheel adjustment must only be performed when the vehicle is stationary and the parking brake is activated.
- Never drive before locking the mechanism again.

2.3.1 Left Control Panel

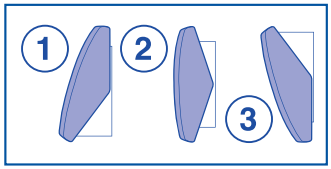


Engine Brake Level Switch

Switch has three levels. Press button to adjust engine brake level.

INFORMATION

1st Position: Provides maximum engine brake power.
2nd Position: Provides less than 1st position engine brake power.
3rd Position: Provides minimum engine brake power.





Cruise Control Switch

Activates cruise control function. So the " cruise control level" switch can be used.

Cruise Control

Enables constant speed (depending on the engine and braking power) without pressing accelerator pedal.

WARNING

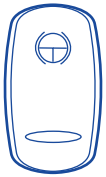
- When cruise control function is deactivated, vehicle slows down unless accelerator pedal is pressed.
- Never use cruise control on wintry road conditions, slippery roads or in heavy traffic.
- When the ignition is switched off cruise values are deleted.

Cruise Control Activating

Press upper or lower side of cruise control level switch to activate cruise control.

INFORMATION

- Press upper side of "cruise control switch" to activate "cruise control level switch".
- Cruise control can be activated within speed range of 20 mph (32 km/h) and 75 mph (120 km/h).
- Move your foot from the accelerator pedal before pressing cruise control switch.



Intarder Foot Control Disable Switch

Enables the control of auxiliary brake unit (retarder) via foot pedal.

Accelerating or Deceleration

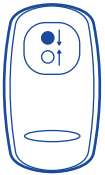
Press upper side of cruise control level switch to accelerate; press lower side of the switch to decelerate.

Deactivating

Press lower side of cruise control switch to deactivate.

INFORMATION

Cruise control is deactivated when service brake is applied or engine brake is activated.



Cruise Control Adjust Switch

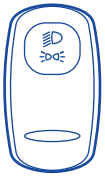
Increases or decreases stabilized speed value.



Lift Active Switch (Optional)

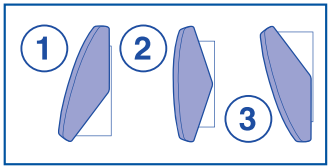
Press upper side of the switch to activate lift mechanism. See page 80 for more information about lift mechanism.

2.3.1 Left Control Panel



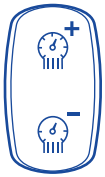
Low Beam Clearance Switch
Switch has three levels. Press button to turn on parking lamps and low beam headlamps.

INFORMATION
1st Position: Parking lamps and low beam headlamps are on.
2nd Position: Parking lamps are on.
3rd Position: Parking lamps and low beam headlamps are off.



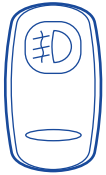


Air Horn (Optional)
Press button to activate air horn.



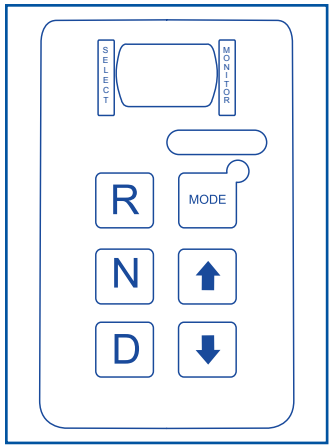
Dimmer Switch
Press upper side of the switch to increase illumination of instrument panel.

INFORMATION
To illuminate instrument panel, parking light switch must be activated.



Front Fog Lamp
Push button to turn front fog lamps on. Press once again to turn them off.

Automatic Transmission Control Panel



Your vehicle is equipped with transmission of six forward gears and a reverse gear. For more information, see also page 138.

OPTION
Automatic transmission model varies according to customer requirements.



Economic and powerful drive mode selection switch.



Upshift switch



Downshift switch



Forward gear switch

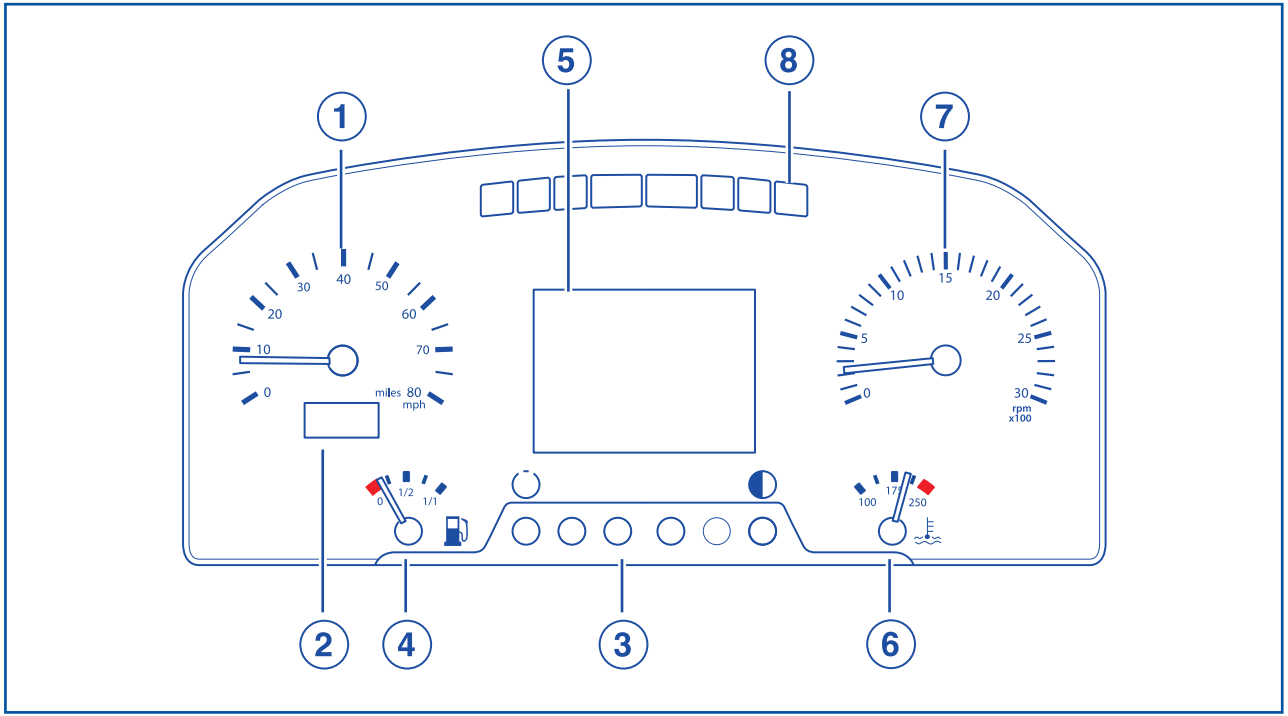


Neutral gear switch



Reverse gear switch

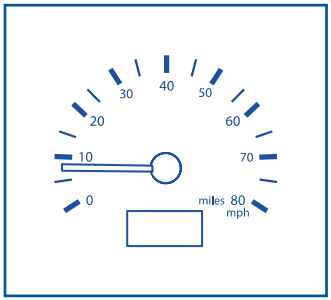
2.3.2 Instrument Panel



1 Speedometer
2 Odometer
3 Menu Selection Buttons
4 Fuel Indicator
5 Warning Panel
6 Temperature Indicator
7 Revolution Counter
8 Main Warning Panel

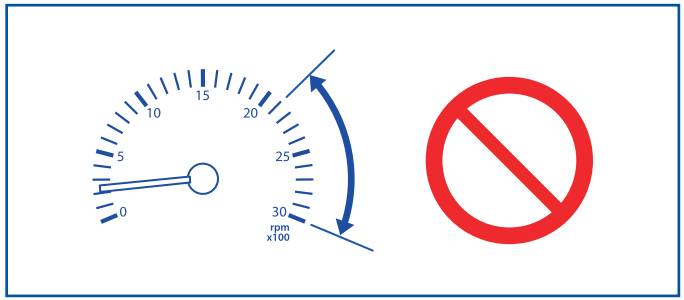
2.3.2 Instrument Panel

Speedometer



Displays current speed of the vehicle.

Revolution Counter



Indicates engine speed in thousands of revolutions per minute (rpm). Revolution counter guides you to drive optimally.

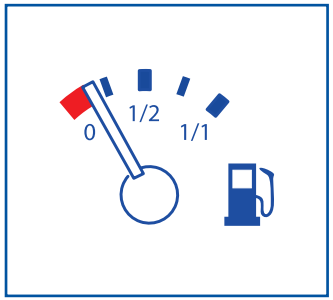
VISUAL INSPECTION

Check revolution counter regularly during driving. Avoid exceeding revolution value of 2300 rpm.

AURAL INSPECTION

Warning lamp on the tachometer lights up when 2300 rpm value is exceeded.

Fuel Indicator



Indicates current fuel level.

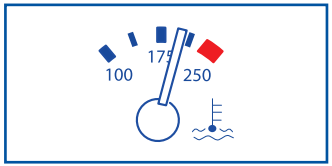
0 : Empty level
1/1: Full level

VISUAL INSPECTION

Check fuel level regularly during driving.

2.3.2 Instrument Panel

Temperature Indicator

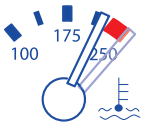


Indicates engine coolant temperature. Exceeding 100°C/212°F means engine overheating and warning lamp lights up. In such a case stop driving, park your vehicle **without** stopping the engine. On the contrary, stopping the engine when it overheats may cause a sudden rise in coolant temperature and the engine to locked up.

What to do?

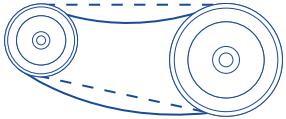


Shift into "NEUTRAL" without topping the engine, turn off the air conditioner, activate the parking brake and do not press the accelerator pedal until the engine coolant temperature drops.



Wait until the engine coolant temperature drops below 100°C/212°F.

HOT SURFACES
Wear protective gloves during inspection of engine compartment. Hot parts may cause severe injuries.



Check the condition of V-belt is not loose or damaged. Consult authorized TEMSA Service if any damage is observed.

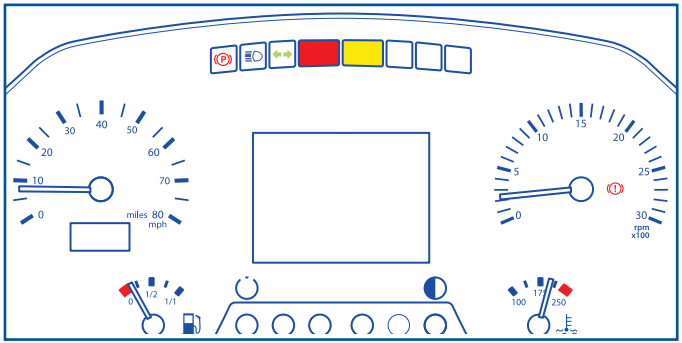


Check that radiator fan is operating. Consult authorized TEMSA Service, before continuing to drive, in case of malfunction.

WARNING
Never open the radiator filler cap when engine overheats.

2.3.2 Instrument Panel

Main Warning Panel



Flashes as long as left or right direction indicator is activated.

Indicates that parking brake is activated.

INFORMATION

Very fast flashing of left or right direction signal indicates a malfunction.

High beam headlamps are on.

Tachometer warning lamp.

Warning lamp I
Lights up in addition to any warning lamp. Stop the vehicle immediately and consult authorized TEMSA Service.

Warning lamp II
Lights up in addition to any warning lamp. When the lamp is on, it is advised not to continue to driving.Take the necessary actions immediately for the corresponding warning lamp.

2.3.2 Instrument Panel

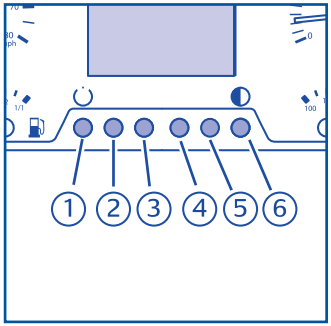
Warning Panel



Warning panel informs driver to vehicle's operating status, malfunctions and information about the software.
Turn ignition key on position "2" to operate warning panel.

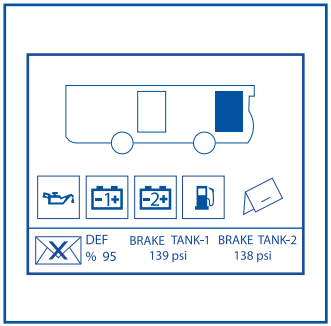
INFORMATION
Adjust warning panel brightness for a clear visibility by using Dimmer Switch located on left control panel. (See also page 35)

Display



Use menu selection buttons to shifting between pages.

Driving Menu



Vehicle's operating status, malfunction warnings, AdBlue level, Brake Tank-1 Pressure, Brake Tank-2 Pressure displayed in this menu.


Coolant temperature warning


Gearbox oil temperature warning


Oil pressure low

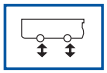

Low/High pressure in front axle tank


Low/High pressure in rear axle tank


Low cooling water level

2.3.2 Instrument Panel


Kneeling-lifting (Failure level control)


Kneeling-lifting active



Fire in engine room / front relay panel / luggage room / rear relay panel / fuel tank / exhaust muffler


Door Air Pressure Low



Retarder active (Optional)


Engine Heater Active


Front left / fr. Right / Rear left / Rr. Right brake lining insufficient / Door air pressure low



First alternator failure



Second alternator failure


Low fuel level



ASR deactive


Front fog lamps are on (Optional)


Preheater Active (Optional)


Handicap passenger icon (optional)


Engine failure


Gearbox failure



ABS active


Central lock open


Mirror heating

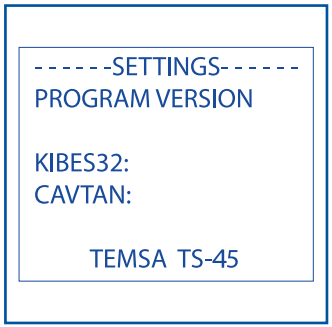

Diesel Particulate Filter Warning


High Exhaust System Temperature


DEF low

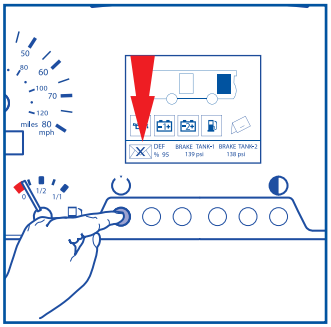
2.3.2 Instrument Panel

Information Menu



Hold button “5” to display information about the vehicle.

Fault Message Menu



In case of malfunction, envelope icon displayed with a number that signifies how many fault message exist. Hold button “1” a few seconds to display fault message menu.

If an envelope with “x” mark displayed, this means no malfunctions.

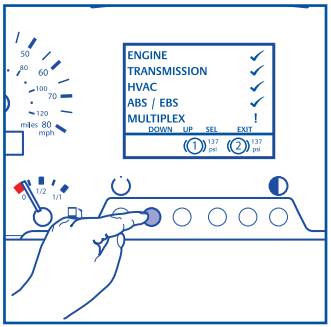
In accordance to malfunction Warning Lamp I or Warning Lamp II located on main warning panel also light up in case of a malfunction.

And an audible warning is given to driver with some malfunctions.

CONSULT AUTHORIZED SERVICE

If warning panel is non operational, do not drive and consult authorized TEMSA Service.

Diagnose Menu



Hold button “2” a few seconds to reach diagnose screen.

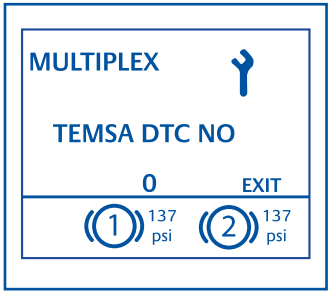
Use warning panel buttons to shift between the diagnose screen content. Button functions are stated below:

Button 2: Down
Button 3: Up
Button 4: Select
Button 5: Exit

2.3.2 Instrument Panel

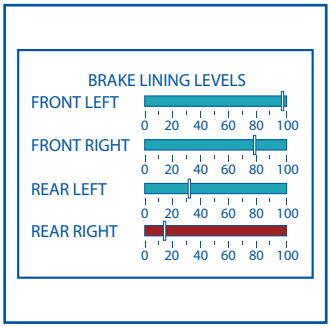
If there is a malfunction on a system an exclamation mark appears against the system name.

Use warning panel buttons and choose faulty system name to see diagnose malfunction code.



Press button 2 to shift next malfunction.

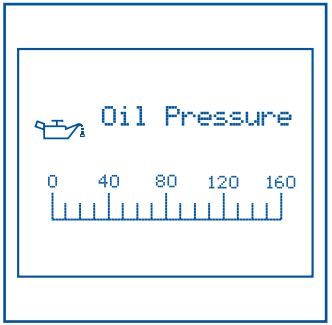
Brake Lining Screen



Hold button “4” a few seconds to reach diagnose screen.
Front left, front right, rear left and rear right brake lining levels displayed in this menu.

INFORMATION
Accuracy rating of brake lining sensor is %5.

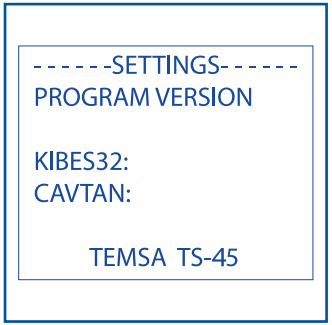
Oil Pressure Indicator



Hold button “5” a few seconds to reach oil pressure indicator.
Displays current engine oil pressure. The current engine oil pressure is displayed in the electronic menu of the warning panel.

VISUAL INSPECTION
Check oil pressure regularly during driving. Stop the vehicle if the warning lamp lights up.

Information Menu



Hold button “6” to display information about the vehicle.

2.3.2 Instrument Panel

Icon	Warning Text	Error Explanation	Main Warning Panel Lamp Status	Voice Status
	Cooling Water Hot	Engine temperature is high. Engine is overheating.	Warning Lamp I (Red)	Available
	Engine Compartment Lid Open	Engine lid is open.	Warning Lamp II (Yellow)	Unavailable
	Oil Pressure Low	Engine oil pressure is low or too low. Lubricating oil level is above or below specification.	Warning Lamp I (Red)	Available
	Transmission Temperature Warning	Transmission temperature is high. Transmission is overheating.	Warning Lamp II (Yellow)	Unavailable
	Fault Gearbox	General gearbox error	Warning Lamp II (Yellow)	Unavailable
	Engine	Serious failure on engine.	Warning Lamp I (Red) Warning Lamp II (Yellow)	Unavailable
	Engine Stopped	Engine stop warning. Engine needs to be serviced at the first available opportunity.	Warning Lamp I (Red)	Unavailable

2.3.2 Instrument Panel

Icon	Warning Text	Error Explanation	Main Warning Panel Lamp Status	Voice Status
	Electric Drive Fault 1 Alternator Down	Alternator 1 is not charging or insufficient charging	Warning Lamp II (Yellow)	Unavailable
	Electric Drive Fault All Alternators Down	Alternators are not charging or insufficient charging	Warning Lamp II (Yellow)	Unavailable
	Fire Warning	Fire breakout on vehicle.	Warning Lamp I (Red)	Available
	No Battery Charge Voltage Low	Battery voltage is under 23 V.	Warning Lamp I (Red)	Unavailable
	Cooling Water Low Check Level	Engine coolant level is low.	Warning Lamp II (Yellow)	Available
	Luggage Compartment	Luggage compartment lid is open.	Warning Lamp II (Yellow)	Unavailable
	Air Pressure Low Front Brake	Front axle pressure is low.	Warning Lamp I (Red)	Available

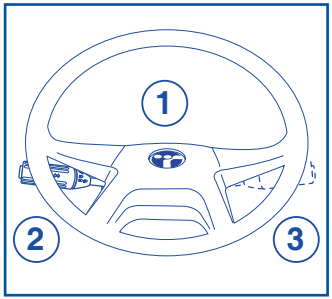
2.3.2 Instrument Panel

Icon	Warning Text	Error Explanation	Main Warning Panel Lamp Status	Voice Status
	Air Pressure Low Rear Brake	Rear axle pressure is low.	Warning Lamp I (Red)	Available
	Front Door Air Pressure Low	Front door air pressure is low.	Warning Lamp II (Yellow)	Unavailable
	Front Brake Air Pressure High	Front axle pressure is high.	Warning Lamp I (Red)	Available
	Rear Brake Air Pressure High	Rear axle pressure is high.	Warning Lamp I (Red)	Available
	Brake Lining Insufficient Check Diagnostic	Brake linings failure.	Warning Lamp I (Red)	Unavailable
	Service Air Filter	Air filter warning.	Warning Lamp II (Yellow)	Unavailable
	Check Diagnostics	Diagnostic failure.	Warning Lamp II (Yellow)	Unavailable

2.3.2 Instrument Panel

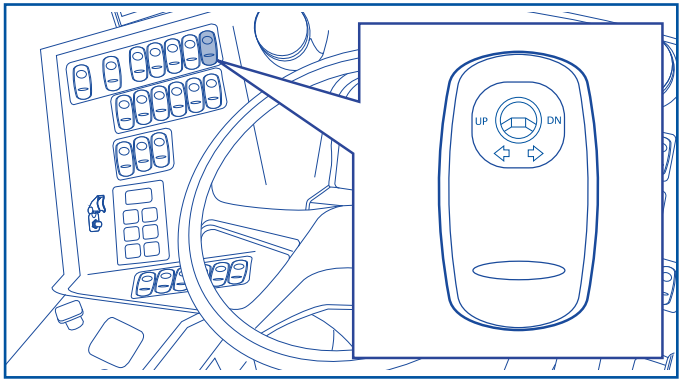
Icon	Warning Text	Error Explanation	Main Warning Panel Lamp Status	Voice Status
	WC Tanks Full/Empty	Toilet clean water tank empty or lavatory waste tank is full.	Warning Lamp II (Yellow)	Available
	WC Emergency Warning	Toilet emergency button pressed.	Warning Lamp I (Red)	Available

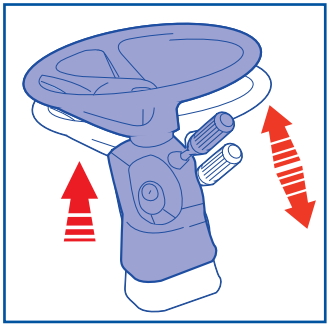
2.3.3 Steering Wheel Control Group

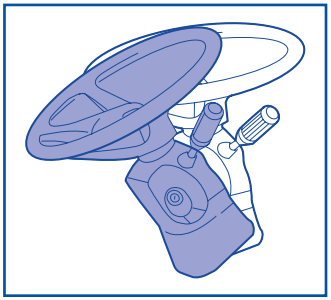


1 Steering Wheel Position Adjustment
2 Left Control Lever
3 Retarder Control Lever (Optional)

Steering Wheel Position Adjustment







To adjust steering wheel position, press “Steering Control Switch” located on left control panel. (See also page 33)

Adjust the position of steering wheel to the desired position. Press button again to lock the mechanism.

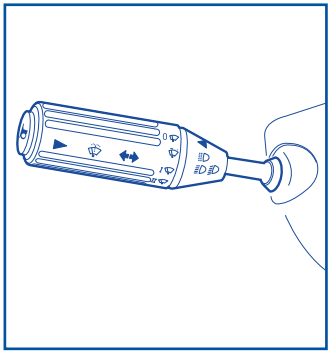
It is suggested to adjust the position of drivers seat, before adjusting the steering wheel position.

WARNING

- Never drive before relocking the mechanism.
- Steering wheel adjustment must be performed only when the vehicle is stationary and the parking brake is activated.

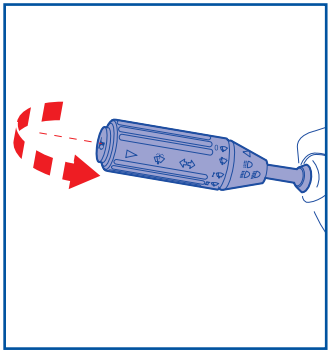
2.3.3 Steering Wheel Control Group

Left Control Lever



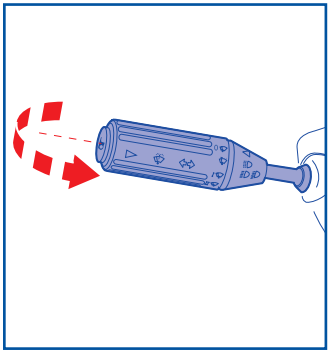
Enables the control of headlamps, high beam headlamps, turn signals, horn and windshield wipers.

High Beam Headlamps



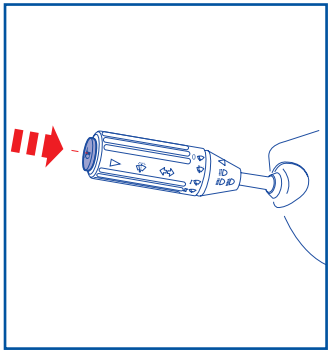
To turn on high beam headlamps continuously push the control lever to second level.

Headlamp Flasher



Push the control lever to the first level. The lever returns to “Off-Position” when it is released.

Horn



Press button to activate the horn briefly.

INFORMATION

None of the functions can be used when the ignition key is switched off.

VISUAL INSPECTION

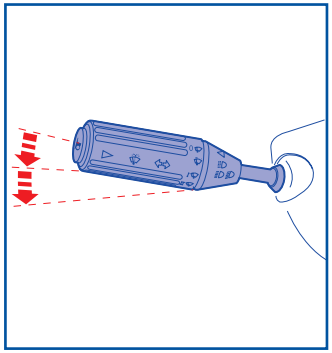
Warning lamp located on warning panel lights up as long as the high beam headlamps are on.

VISUAL INSPECTION

Warning lamp located on warning panel lights up unless the lever is released.

2.3.3 Steering Wheel Control Group

Right Turn Signal

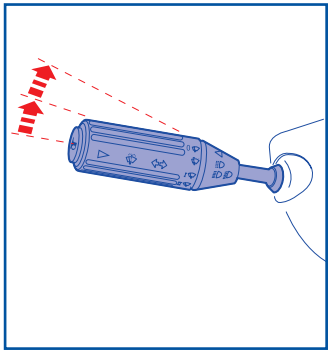


Move the control lever forward to utmost degree to activate right turn signal.

VISUAL INSPECTION

Corresponding warning lamp located on warning panel flashes as long as right or left turn signal lever is activated.

Left Turn Signal

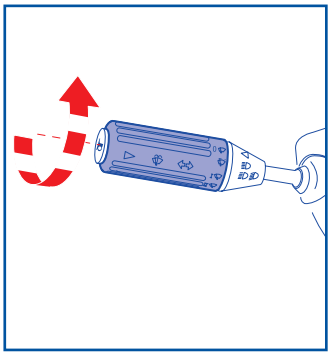


Move the control lever toward you to utmost degree to activate left turn signal.

INFORMATION

When the steering wheel is turned to its normal position, turn signal is switched off automatically.

Windshield Wiper



Adjust the speed of wipers by rotating the front part of control lever in the direction of the arrow.

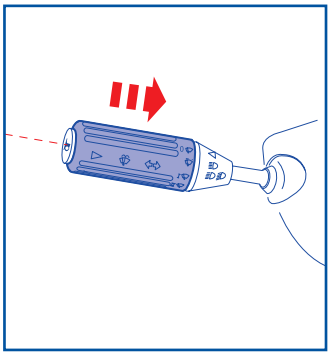
0: Windscreen wipers are off.

: Periodic wiping

I: Slow wiping

II: Fast wiping

Windshield Washer



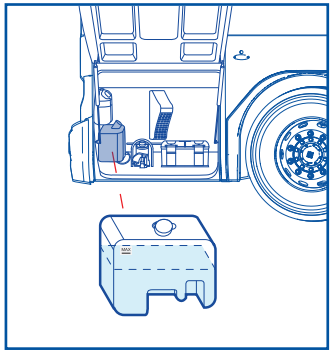
Push the lever in the direction of the arrow to spray washer fluid and activate the windshield wipers to wipe three times.

INFORMATION

To wash and wipe the windshield continuously, hold the front part of the lever toward steering column.

2.3.3 Steering Wheel Control Group

Windshield Washer Fluid



Open the access hatch. Pull the cap of the tank and pour the fluid into it.

WARNING

Always use clean and filtered washer fluid.

Retarder Control Lever (Optional)

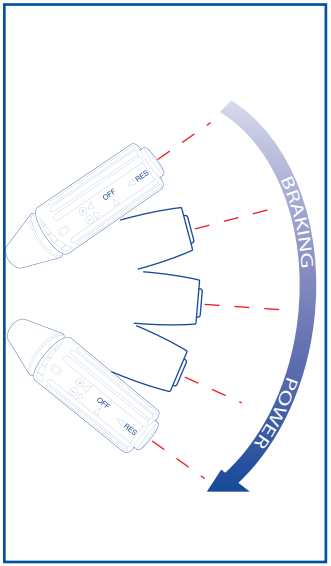
To apply retarder brake function, move the lever gradually to provide sufficient auxiliary braking (retarder) power.

INFORMATION

- Retarder system has five levels.
- First level of retarder system maintains a steady speed on gradients.
- Vehicle prolongs accelerating at first level of retarder system, as long as the accelerator pedal is pressed.
- Retarder cannot be applied under speed of 18.64 mph. (30 km/h).

OPTIONAL

This feature depends on customers request. It may not exist in all models of the vehicle.



CONSULT AUTHORIZED SERVICE

TEMSA

Consult with the nearest authorized TEMSA service if retarder fault warning appears on display.

WARNING

- Retarder may not be sufficient for full braking power while driving at low speeds. Therefore, service brake must be applied in addition to retarder in such a case.
- Never activate retarder brake on slippery road, tires might get blocked and vehicle might sway.

2.3.4 Lateral Control Panel

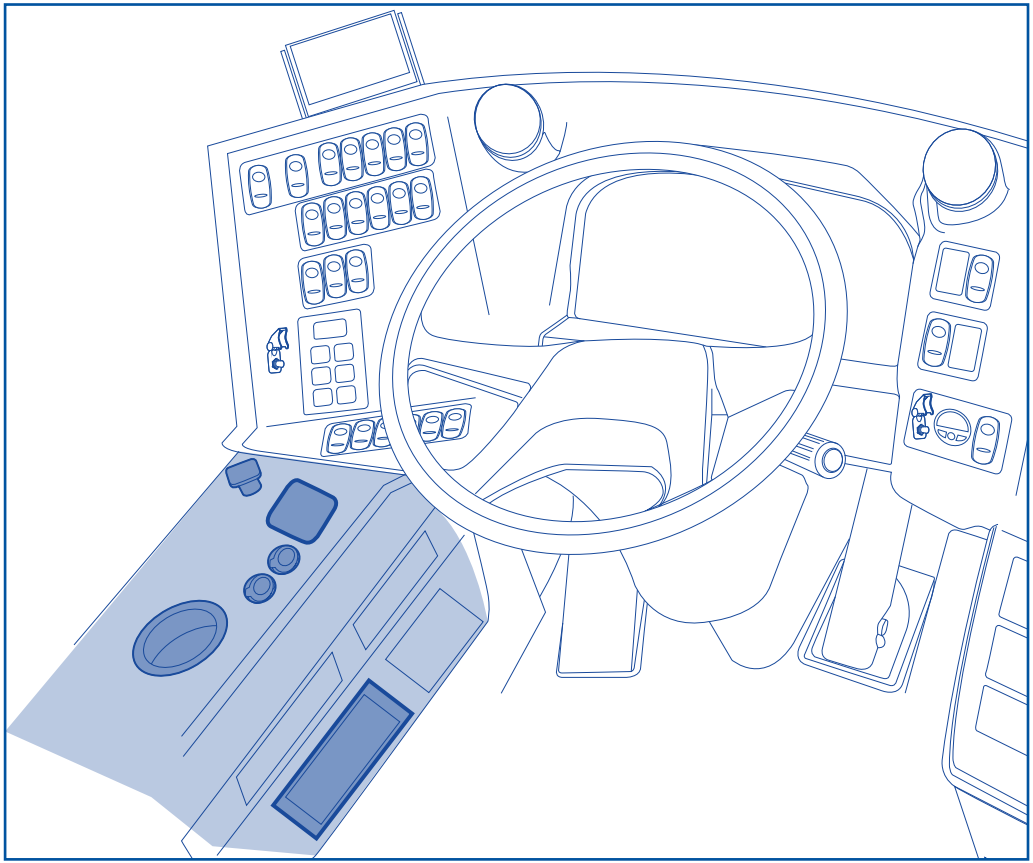
2.3.4.1 Parking Brake

2.3.4.2 Mirror Control Switch

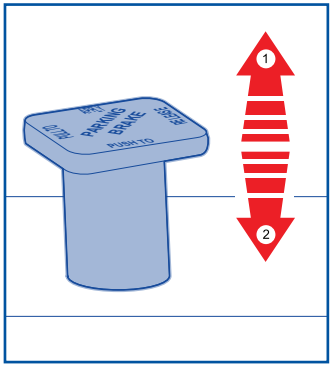
2.3.4.3 12V Electric Socket

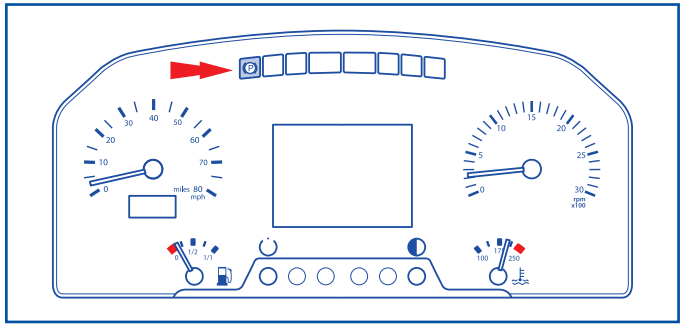
2.3.4.4 Driver's Document Box

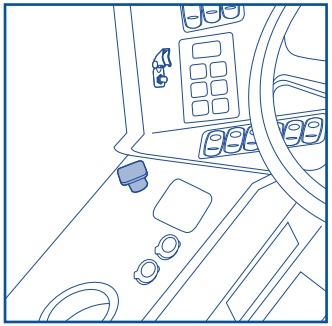
2.3.4.5 Cup Holder



2.3.4.1 Parking Brake







Prevents the vehicle from sliding after it is brought to a stop.

To activate the parking brake, pull the lever upwards (1).

To release the parking brake, push the lever downwards (2).

VISUAL INSPECTION

"PARKING BRAKE" lamp located on indicator panel lights up when the parking brake is activated. It turns off when the parking brake is released.

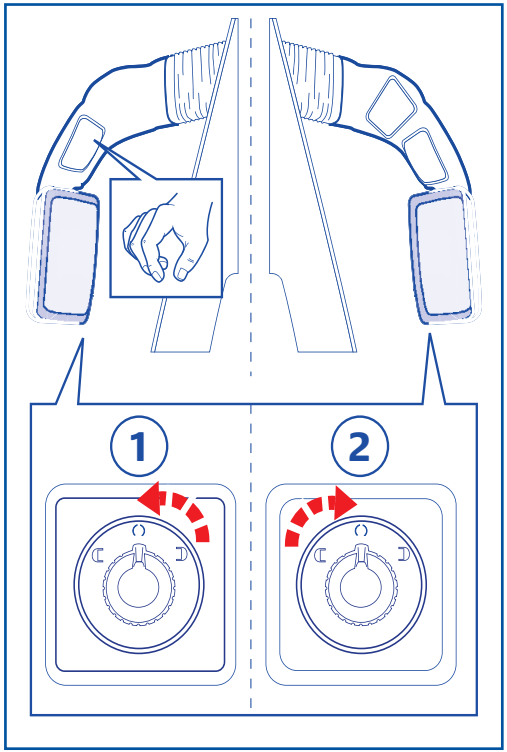
WARNING

Check the air pressure of the system if the warning lamp does not turn off although the parking brake is released. In such a case consult authorized TEMSA Service before continuing to drive.

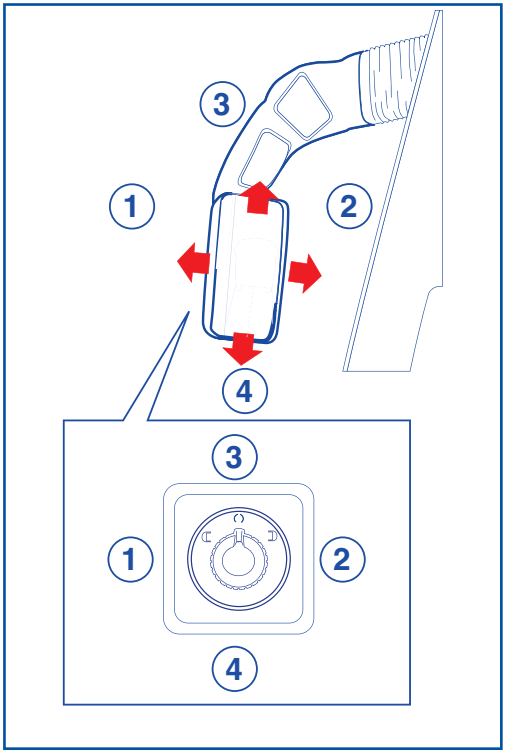
WARNING

Never activate the parking brake while driving except in emergency situations.

2.3.4.2 Mirror Control Switch



1 Left Rear View Mirror
2 Right Rear View Mirror

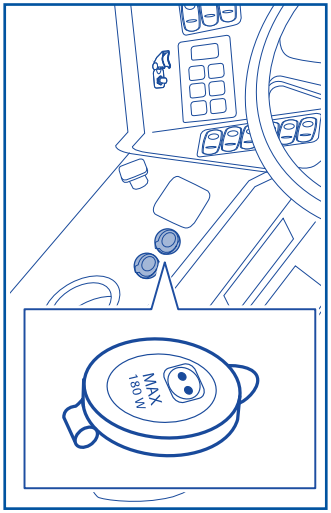


1 Left
2 Right
3 Up
4 Down

Adjust position of the bottom mirror by using the switch. Mirror moves in the same direction as the arrows on the switch.
Rotate the switch to select left or right mirror. The Upper mirror can be adjusted manually.

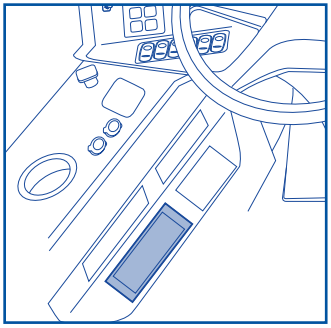
OPTION
Rear view mirrors may vary according to customers request.

2.3.4.3 12 V Plug



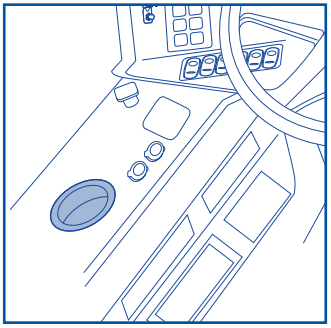
Supplies 12 V DC when the ignition key is switched to position “1” or “2”. Use only accessories such as phone charger, coolers, fans etc. Maximum available current is 10 A.

2.3.4.4 Driver’s Document Box



Documents and other non heavy personal belongings can be stored in this box.

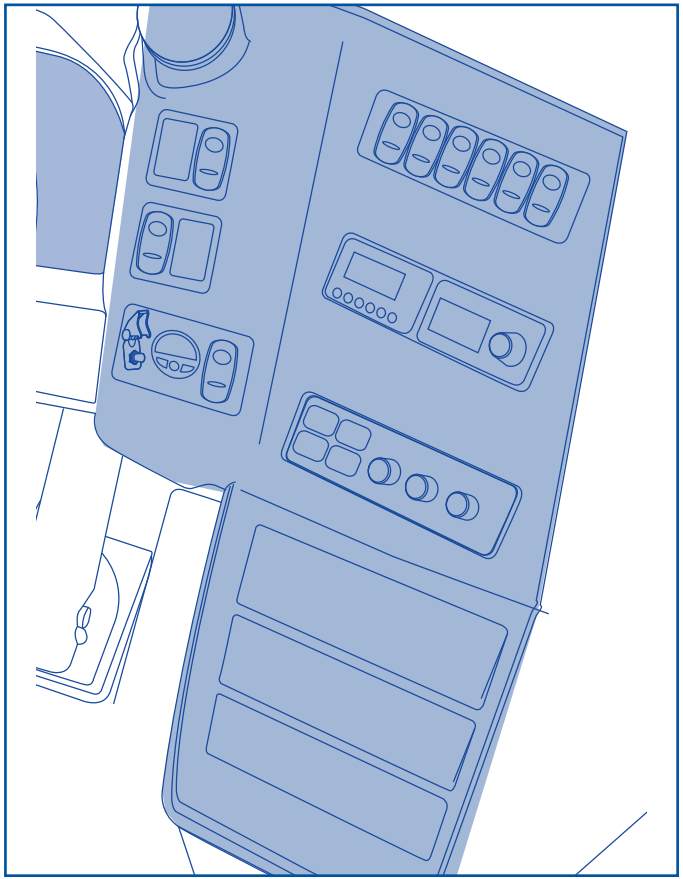
2.3.4.5 Cup Holder



WARNING

- Liquid inside the cup may spill in case of sudden acceleration or braking.
- Hot liquid could cause injury and accident.

2.3.5 Right Control Panel





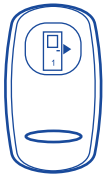
Battery Charge Warning Lamp
Lights up when battery charge level decreases.



Low Fuel Level Warning Lamp
Lights up when fuel level is low.



Transmission Power/Eco
Press button to activate/deactivate transmission power mode.



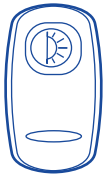
Front Door Control Switch
Opens the front door from driver's compartment.



Hazard Warning Flasher Switch
Press upper side of the switch to activate hazard warning flashers.
When the switch is pressed, indicator led on the switch, turn signal indicators on the indicator panel and all signal lamps start flashing.
Press lower side of the hazard warning flasher switch once again to deactive flashers.

INFORMATION
Hazard warning flashers can be activated even if igniton key is removed.

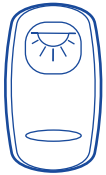
INFORMATION
Hazard warning flashers are also activated when the "Emergency Stop Switch" is pressed.



Aisle Lights Switch
Press upper side of the switch to turn aisle lights on.

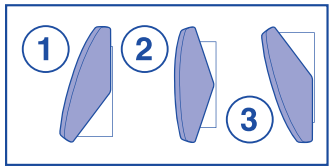


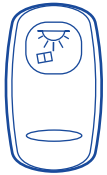
Drivers Reading Lamp Switch
Press upper side of the switch to turn drivers reading lamp on.



Interior Light Switch
Turns on corridor lamps.

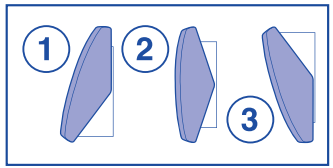
INFORMATION
1st Position: Three lamps at the right hand side and three lamps at the left hand side light on.
2nd Position: One lamp at the right hand side and two lamps at the left hand side light on.
3rd Position: Off Position

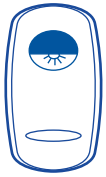




Reading Light Switch
Turns on night and passengers' reading ligts.

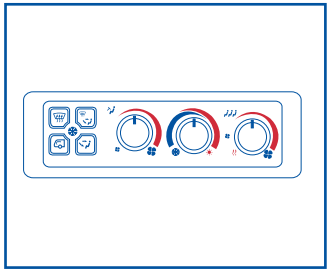
INFORMATION
1st Position: Night lamps and passengers' reading lights on.
2nd Position: Passengers' reading lights on.
3rd Position: Off Position





Night Light Switch
Turns on night ligts.

Defroster Control Panel





Press the button to direct the air towards the windshield for defrost



Press button to direct the air to the windows, upper side and lower side of the driver.

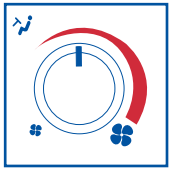


Press button to direct the air to the upper side and lower side of the driver.



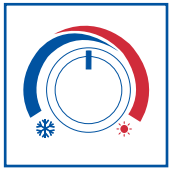
Recirculated Air Button

Press button to activate recirculated air mode.



Driver's Side Fan Speed Adjustment Button

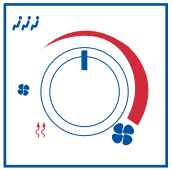
Rotate the knob to adjust fan speed on driver's side.



Temperature Adjustment Button

Rotate knob to adjust temperature.

Blue: Cold air
Red: Hot air



Coach air circulation fan speed adustment knob

Rotate the knob clockwise to increase the speed of the fan which is located in the luggage compartment. Fan speed may need to be increased when the side windows become foggy.

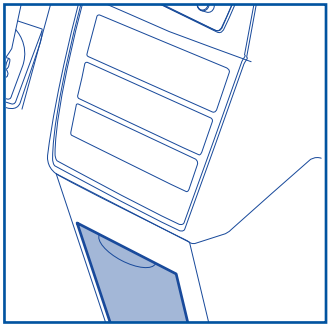
INFORMATION

Refer to user's manual of defroster control panel delivered with the vehicle for more information.

OPTION

Cooling function of defroster depends on customers request. It may not exist in all models of the vehicle.

Driver's Glove Box

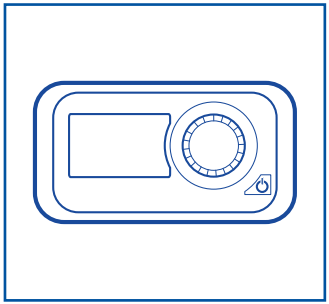


Pull it to open.

WARNING

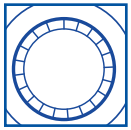
DO NOT store hot or liquid materials inside the glove box.

A/C Control Panel





Press button to activate and de activate air conditioner.



Turn switch to set temperature degree.

INFORMATION

Refer to user's manual of air conditioner control panel delivered with the vehicle for more information.

2.4 Keys

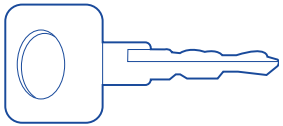
3 different keys are provided with the vehicle.

In case the keys get lost, consult authorized TEMSA Service to order.

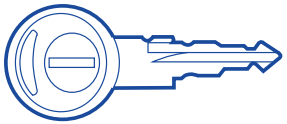
OPTION

Keys of new additional equipment may be different from those indicated in user's Manual.

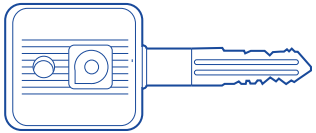
Ignition Key



Toilet Door Key



Fuel Tank Access, Front Door, Engine Compartment, Service Hatch Key and Glove Box Key

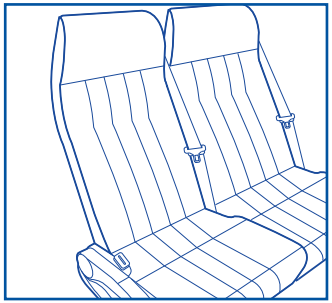




03 VEHICLE INTERIOR

3.1 Passenger Seats
3.2 Seat Belts
3.3 Passenger Control Group
3.4 Emergency Situation Equipment
3.5 Accessories

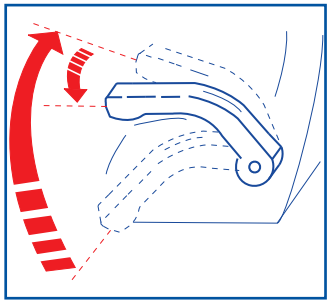
3.1 Passenger Seats



OPTION

Model, type and specifications of passenger seats may differ from those stated in this User's Manual.

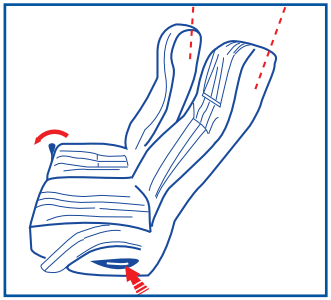
Armrest



Pull the armrest upwards to the utmost degree to open it. Release the armrest after it is locked. Armrest would stay stationary at that position.

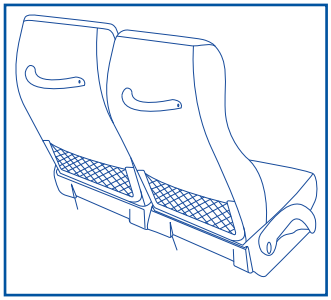
To close the armrest, pull the armrest to the utmost degree again and push to lowest level after it is released.

Upright Position Adjustment Lever



Pull the lever in the direction of the arrow to adjust upright position.

Seat Pocket



When using the seat pocket the item in the pocket should not extrude more than 10cm/4inch above the top of the pocket and weight no more than 1kg/2.2lbs.

OPTION

This feature is optional. It may not exist in all models of the vehicle.

3.2 Seat Belts

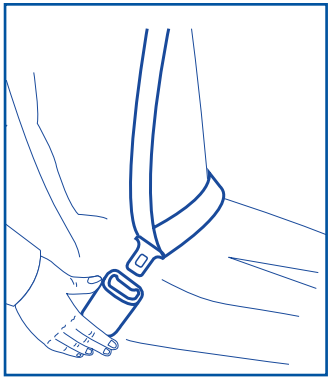


Passenger seats are equipped with three-point seat belts. It is of vital importance to use seat belts during travel. Inform the passengers about wearing seat belt before driving.

WARNING

- Seat belts have vital importance. Therefore, use only TEMSA genuine spare parts.
- Check all the belts function properly before starting to drive. Pull the belt sharply against retractor to confirm that automatic lock mechanism is working properly. Consult with authorized TEMSA service in case of any problem related to connection and lock elements.
- No objects other than the buckle latches should be inserted into the belt buckle.
- Pull the seat belts to check all buckle latches if they are inserted into their buckles or not.
- Seat belts worn during the travel keep tense position. It is recommended for the passengers not to carry stiff objects such as pen or cell phone in their pockets. Inform the passengers on this matter.

Use of Seat Belts For Adults



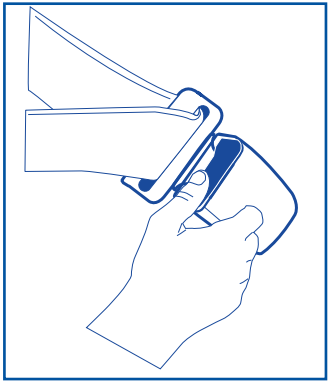
Insert the buckle latch into the belt buckle to fasten seat belt.

AURAL INSPECTION

Insert the buckle latch into the belt buckle until it engages audibly.

WARNING

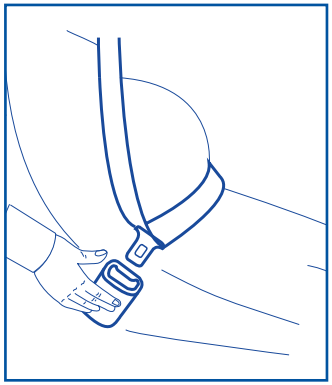
Seat belts provide maximum safety when passenger seats are at upright position. When the seats are reclined at an extreme degree, sliding may occur resulting with injuries.



Press the latch on the belt buckle to release the seat belt.

3.2 Seat Belts

Use of Seat Belts for Pregnant



Proper usage of seatbelts during pregnancy will not affect babies or mothers adversely.

Seat belts should be fastened from the lower side of abdomen by pregnant so as to prevent compression.

Passenger seat should be kept at the upright position as much as possible to provide safer use for pregnant.

Use of Seat Belts for Children

Passengers of ages 0-10 should be attended for the use of seat belts safely. Seat belt may not be tightened enough depending on the size of the passenger. In such a case, a cushion should be put on the seat surface so as to ensure that the seat belt is fastened at the proper tightness in order to prevent the passenger from sliding off the seat.

WARNING

- Passengers should not walk in the vehicle unless necessary.
- Each seat belt is allowed to be used individually. Only use one seat belt per person.
- Replace any seat belts which have been damaged, stained or teared.
- Children of ages 0-10 should by no means be permitted to wander in the vehicle if unattended by their parents.

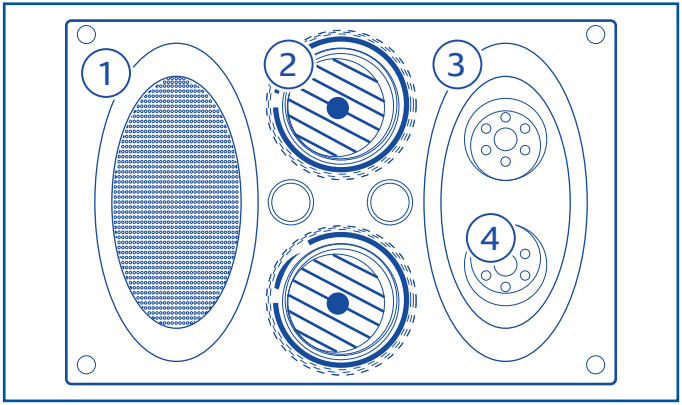
WARNING

Check that lap belts are run over passengers' hips and not over their abdomen/waist. Pressure is applied on hipbone instead of abdomen in the event of an accident and prevents from severe injuries.

INFORMATION

Check that seat belts are correctly seated and they function properly during travel and tighten if necessary.

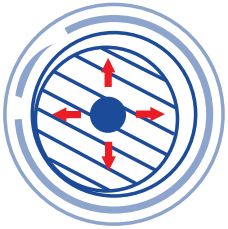
3.3 Passenger Control Group



1. Passenger Speaker
2. Passenger Air Vents
3. Passenger Reading Lights
4. Reading Lamp Button

Passenger Air Vents

Cool air transferred by the air conditioner is conducted to the passengers via air vents.

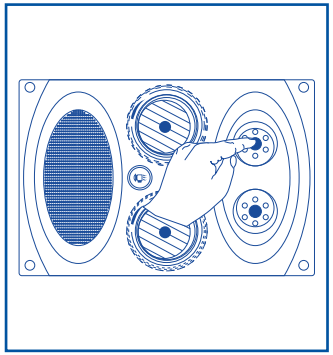


Air outlet can be controlled by moving the ring.



Rotate the vents counterclockwise to open the air vents; rotate the vents clockwise to close the air vents.

Reading Lamp Button



Press button to turn on reading lamps.

INFORMATION

Press “Reading Light Switch” located on right control panel to activate passenger reading lamp switchs. (See also page 58)

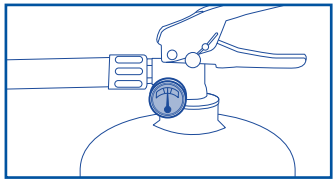
3.5 Emergency Situation Equipments

Fire Extinguisher

INFORMATION

The fire extinguisher is to be used in the event of a fire to prevent the fire from spreading.

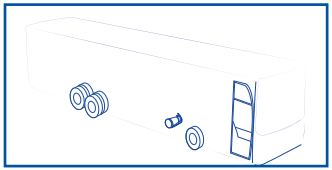
Check the pressure indicator of the fire extinguisher according to state fire laws. It is under driver's responsibility to ensure that charge level is within acceptable range.

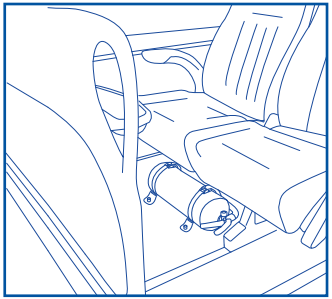


Access

Fire extinguisher is located under the first row passenger seats on the right hand side of the vehicle and its denoted by a label.

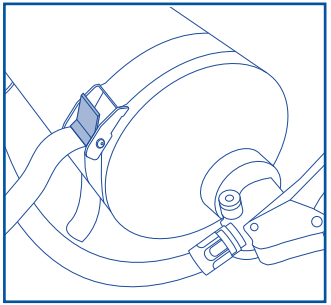






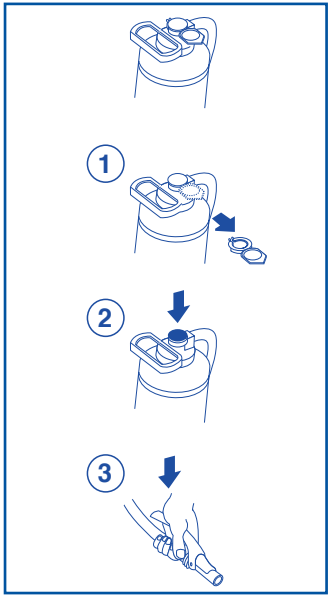
OPTION

Location of fire extinguishers and their volume may vary according to customers request. Location of the fire extinguisher may differ from the one indicated in this User's Manual.



Fire extinguisher is stabilized on the vehicle floor with two safety ribbons. Press both of the clips and unlock to release the extinguisher.

Usage



1. Pull extinguisher's safety pin.
2. Press the button on the top of the extinguisher.
3. Ensure that fire extinguisher is in a vertical position. Aim the nozzle at the base of the fire and squeeze the handle to discharge the agent.

3.5 Emergency Situation Equipments

Fire Instructions

Driver Duties

1. Before starting a journey, the driver must check:
- The tire pressure (visual check on a daily basis - test tires on a weekly basis).
- No liquids are leaking on pavement (visual check).

WARNING

Ensure that no oil exits from the muffler and that you see no excessive blue smoke (turbocharger oil consumption).

- The proper functioning of the preheating systems (engine and interior).
- The exhaust system components are free from debris.

2. When operating a vehicle, the driver needs to:
- Check the coolant temperature gauge.
- Avoid any overheating.

WARNING

Stop any overheating if the engine, brakes or retarder become overheated/or when sensing unusual odors or smoke, or if noticing smoke visually.

- Park in a safe and clean area.
- Avoid overloading because it increases all temperatures!
- Record in the daily operation report malfunction(s) with mileages and time.
- Check the ABS warning light.
- Check the proper functioning of the retarder (hydraulic or electric).

3. After completing a journey, the driver needs to:
- Inform the technician / next driver of a disfunction.
- Hand over to the technician or fleet manager the daily operation report (copy).
- Make a visual check of the engine compartment and surrounding equipments of the vehicle and inform the technician of any problem.

4. When returning a coach:
- Park the vehicle with the main battery switched off (if applicable). This will disconnect the batteries from the alternator, eliminating a risk of fire due to an internal electrical failure.

Actions to Be Taken In The Event Of a Fire

1. (Try to) park the vehicle in a safe area.
2. Apply the parking brake.
3. Inform passengers to move a safe distance away from the vehicle.
4. Open door in order to let passengers get out fast.
5. Stop engine / isolate the battery by deactivating the main battery cut-off switch (See also page 170). Switch off the air-conditioning / heating.
6. Identify the source of the fire.
7. Inform the appropriate emergency services, giving as much information about the incident or accident and passengers involved as possible.
8. Where appropriate and safe to do so, use the fire extinguishers to put out fires / do not open the engine compartments if fire occurs.
9. Put on warning vest and place the self-standing warning signs as appropriate / Secure the incident area.
10. Make sure that passengers are at a safe distance from vehicle.
11. Move away from the vicinity of the accident or emergency, advise other persons to move away and follow the advice of the emergency services.
12. Report to company management about the incident.

3.5 Emergency Situation Equipments

What to do

In the event of a possible fire, evacuate the passengers to a safe area. Always evacuate women and children first.

WARNING

- Never leave the fire area before fire is extinguished completely.
- The Fire Extinguisher should be regularly checked by professionals.

INFORMATION

- Take the direction of the wind into consideration, do not discharge agent against the wind.
- Aim the nozzle directly at ground level and core of the fire.
- Aim first for front parts and then lateral parts of fire.
- Treat first the areas of higher risk which may create danger from heating up.

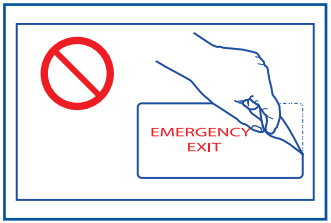
Emergency Exit Windows

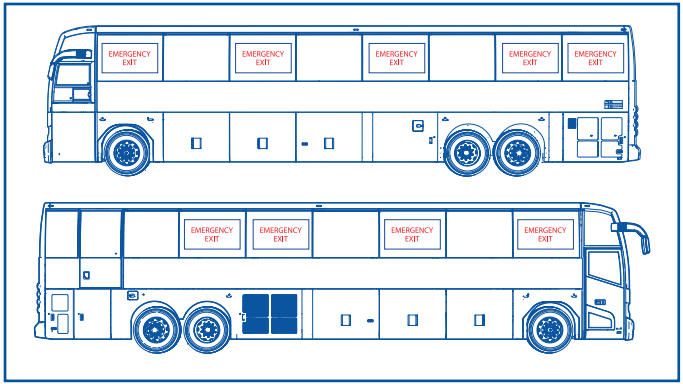
Your vehicle is equipped with emergency windows on both left and right side. Emergency windows are denoted with special labels. Check the windows are functioning properly and the labels are legible.



WARNING

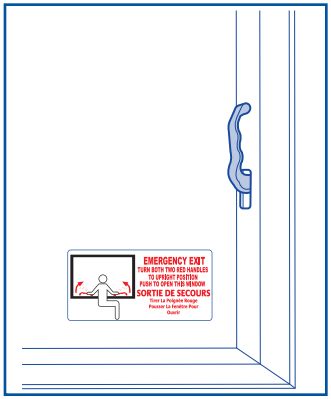
Never remove the labels stuck on the emergency exit windows.

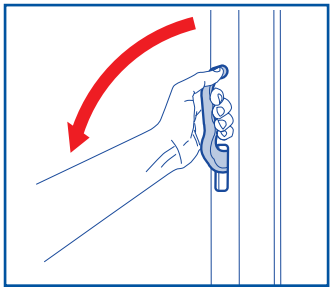




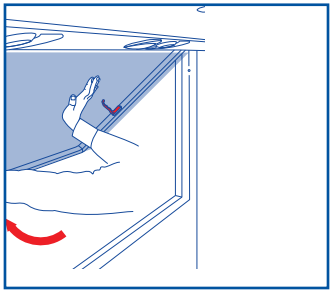
3.5 Emergency Situation Equipments

Emergency Exit Windows

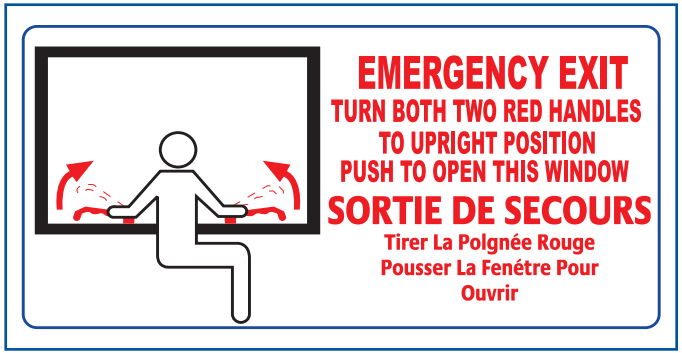




Pull both two handles to upright position to release the lock mechanism.



Push the emergency exit window after the lock mechanism is released.



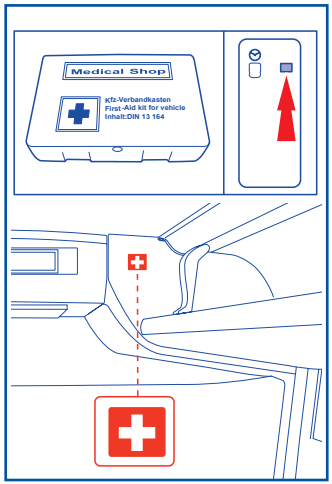
INFORMATION

Opening handles are only installed on emergency windows.

3.5 Emergency Situation Equipments

First Aid Kit

First aid kit is provided inside the vehicle. It is located in driver's overhead luggage rack and denoted with the label shown below.



OPTION

Location, amount and content of first aid kits may vary according to customer request. Therefore first aid kits may differ from that indicated in User's Manual.

INFORMATION

- First aid kit content is not meant for treatment purposes. They are provided for first aid.
- First aid content must only be used by trained people.

First aid kit content is listed below:

2	Elastic bandages (6x4)
3	Elastic bandages (8x4)
2	Triangular bandages
4	Disposable gloves
1	Scissors
1	Adhesive tape
8	Adhesive wound tapes
3	Sterile aid packages (8x10)
1	Sterile aid package (10x12)
2	Absorbent bandages (40x60)
1	Absorbent bandage (60x80)
6	Wound dressings (10x10)

INFORMATION

Check that first aid kit content is present and complete. Replace used items.

Wheel Chocks

Wheel chock is used as a safety device to keep the vehicle from accidental movement.

Set wheel chocks and secure the vehicle when parking uphill or downhill, changing wheels or in a malfunction on brake system or if other circumstances cause it to roll on an incline. Otherwise vehicle may skid.

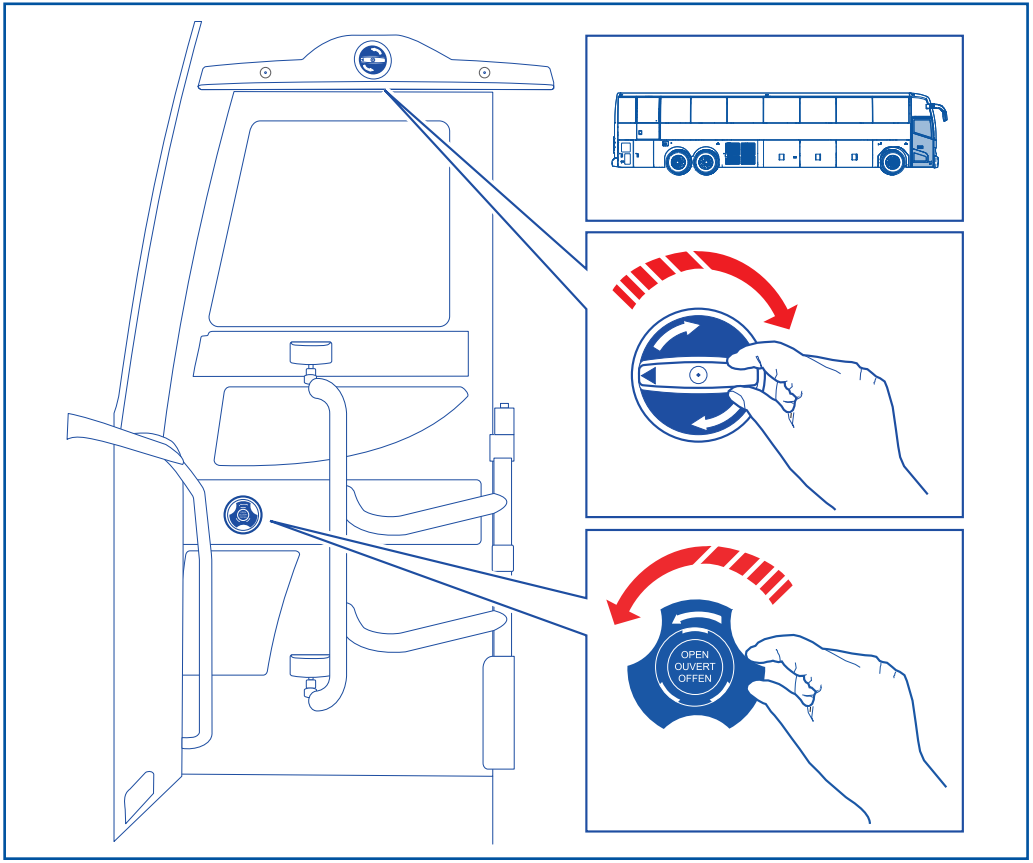
Set wheel chock under tires in the direction of the grade. If it's uncertain which direction is the grade, the wheels should be chocked on both sides. Ensure that wheel chocks in position and available before driving. Wheel chocks must be available in the vehicle.

Door Emergency Exits
Front Door

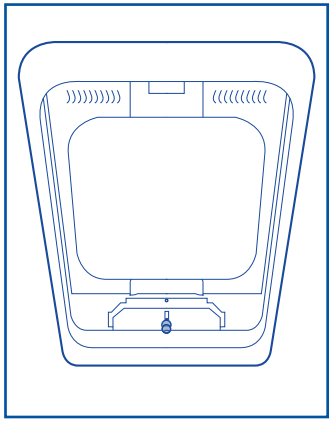
Front door can be opened independently from the driver's control panel in emergencies. Emergency exit valve is located at the top of the door.

In emergency, turn the emergency exit valve clockwise and push the door outwards to open.

If the door is locked from outside, turn the lever anti-clockwise to unlock the mechanism.

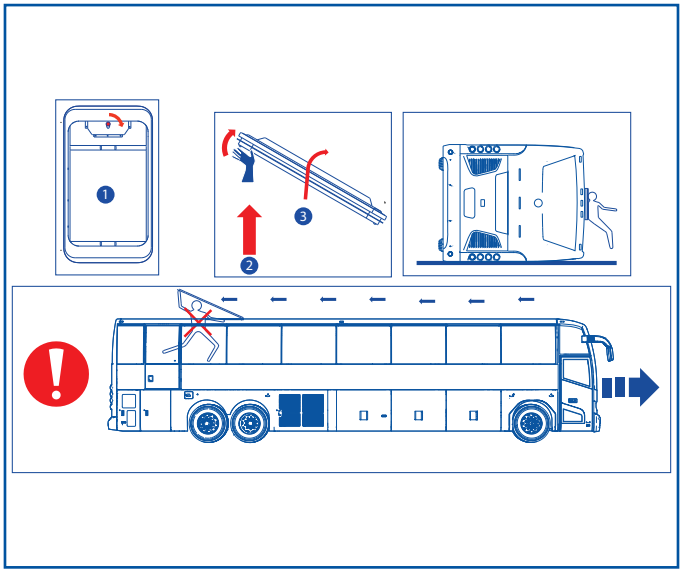


Roof Escape Hatch



In an emergency;

1. Push up
2. Pull the white knob
3. Open the lid

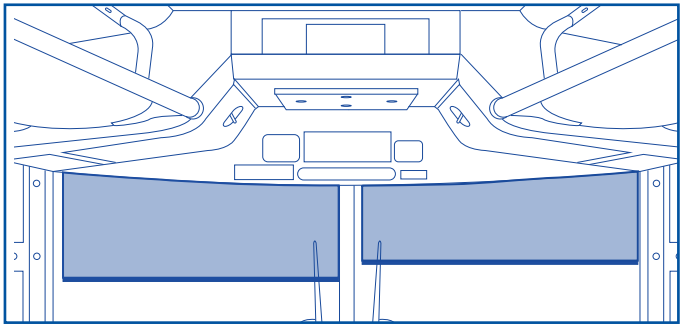


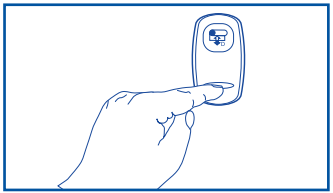
WARNING

- Never remove the labels stuck on the emergency exit windows.
- Never use escape hatches when the vehicle is not stationary.
- It is of vital risk to use escape hatches unnecessarily.

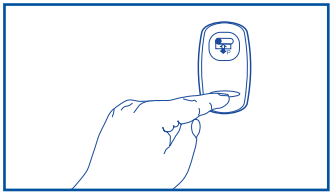
3.6 Accessories

Sun Visor





Keep lower side of the switch pressed to lower driver's sun visor.

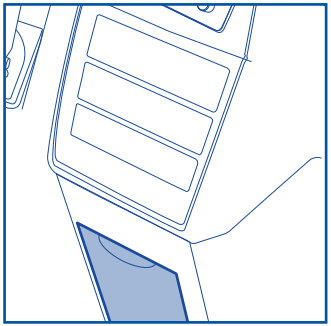


Keep lower side of the switch pressed to lower assistant's sun visor.

INFORMATION

Sun visor control buttons are located on left control panel.

Glove Box

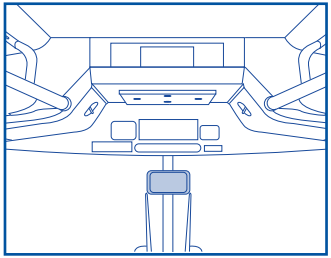


Personal belongings can be stored inside the glove box.

A lock is provided on the glove box hatch. Turn the key anti-clockwise to unlock the hatch and lift to open.

Push the hatch downwards to close and turn the key clockwise.

Rear View Mirror



Allows the driver to see inside of the vehicle.

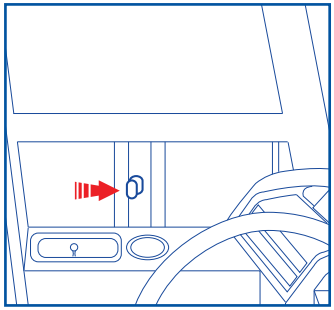
Adjust the rear view mirror to see inside of the vehicle and doors.

INFORMATION

Rear view mirror is adjusted manually.

3.6 Accessories

Driver's Side Window



Latches are provided with the lock mechanism of the windows.

Press the latch and slide the window to the right to open.

Hold the latch and slide to the left to close the window.

WARNING
Always hold latches from outer parts. Otherwise your hand may get caught.

Driver's Side Sun Visor

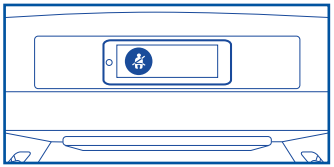


Pull the black knob to move the sun visor downwards.
Pull and release the white knob to move the sun visor upwards.

OPTIONAL
This feature is optional. It may not be included in all models.

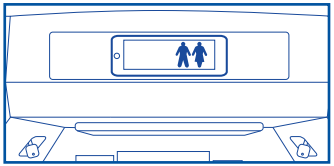
Digital Indicators

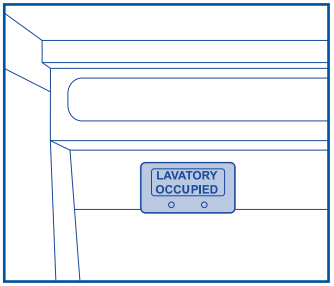
Seat Belt Indicator



Indicates that passengers must fasten their seat belts.

Toilet Indicator





Indicates that the toilet is in use.

INFORMATION
Toilet indicator lamp lights up when the toilet door is locked from inside.

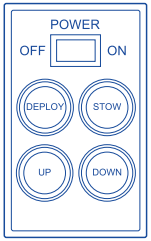
3.6 Accessories

Lift Mechanism (Optional)

Getting on/off the bus is made easier for the wheelchaired passengers or passengers with baby stroller.

Lift mechanism can be controlled from outside the vehicle. Press "Lift Active Switch" located on left control panel to activate lift mechanism control panel.

OPTIONAL
This feature is optional. It may not be included in all models.



Power Enable: Provide power to the pendant and thereby enable the lift.
Deploy Button: Extand platform from the lift storage compartment.
Stow Button: Retract the platform back into the storage compartment.
Down Button: Lower the platform towards the ground.
Up Button: Raise the platform towards the vehicle floor.

Button must be held depressed until the motion is completed. Movement of the platform can be halted at any time by releasing the button.

Operating Lift Mechanism

1. Switch ignition key on position "2" and run the engine.
2. Activate parking brake.
3. Ensure the vehicle is steady.
4. Switch gear into neutral position.
5. Press "Lift Active Switch" located on left control panel.
6. Ensure lift door is open.
7. Control lift mechanism by using lift mechanism control panel located outside of the vehicle.

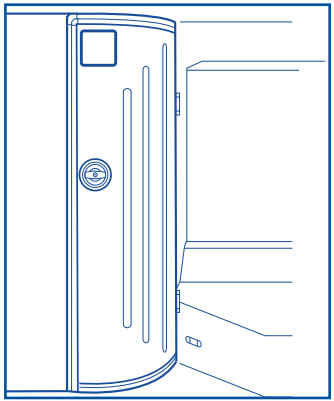
INFORMATION
While lift mechanism is operating;
- Kneeling-Lifting function is disabled.
- Temporary bus stop is activated. Even parking brake is released temporary bus stop prevents moving.
- Vehicle is prevented to move until lift is stowed again into its place.

WARNING
- Do not exceed rated load capacity of 660 pounds (300 kg).
- Inspect lid before use. Do not use lift an unsafe condition exits or if unusual noise or movement is noticed. Contact authorized Temsa Service.
- Lift mechanism is to be used by one wheelchair occupant only. Do not overload lift.
- Do not allow an untrained person to operate lift.
- Lock wheelchair brakes before raising or lowering platform.

WARNING
Never try to activate Kneeling-Lifting function when lifting mechanism is in use.

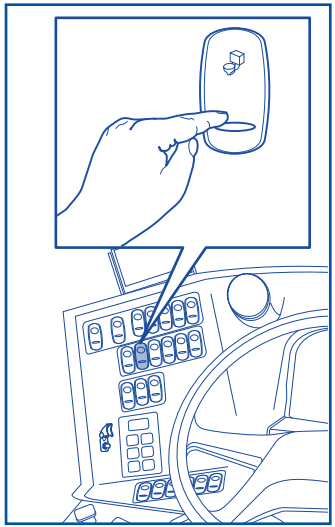
3.6 Accessories

Toilet (WC)

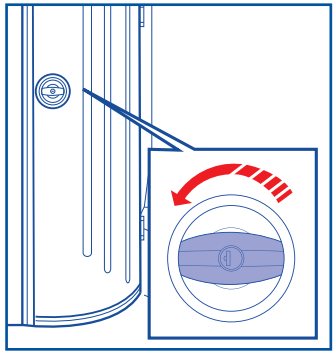


Your vehicle is equipped with toilet unit and denoted by label.





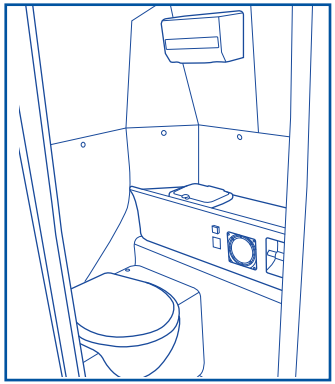
Push “WC Active” button located on the left control panel to activate toilet system.



Rotate the lever counterclockwise and pull it toward you to open the toilet door.

WARNING

Toilet door is equipped with spring mechanism. Take necessary precautions while opening and closing toilet door. Your hand may get caught.

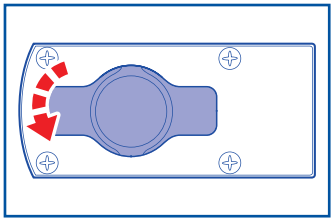


WARNING

Information about toilet usage is denoted by warning labels. Inform passengers before using toilet.

3.6 Accessories

Toilet (WC)

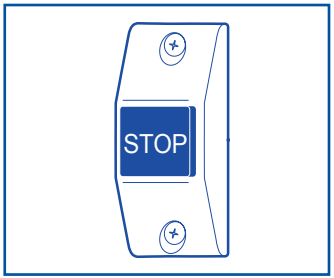


Rotate the lever counterclockwise to lock the toilet door from inside.

WARNING

When the engine is on and "WC Active" switch is pressed, the ventilation fan runs at a higher level and toilet lamps light up if the toilet door is locked from inside.

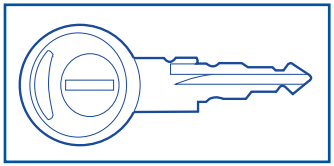
Rotate the lever clockwise to unlock the door and push to open.



Emergency situation switch can be found inside the toilet unit.

INFORMATION

Corresponding warning lamp on indicator panel lights up as long as the stop switch is kept pressed and discontinuous warning buzzer sounds.

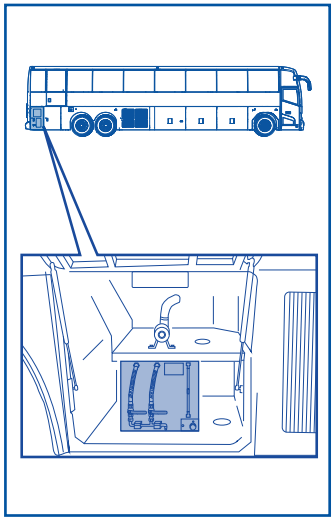


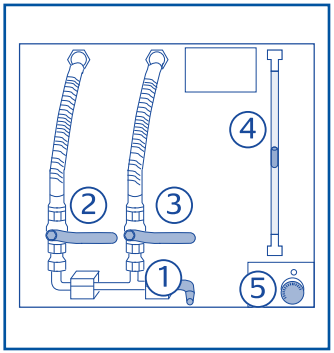
INFORMATION

Use "Toilet Door Key" to open toilet door from outside in case of emergency.

3.6 Accessories

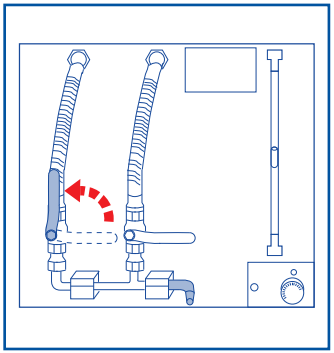
Lavatory Water Tank





1. Clean Water Inlet
2. Inlet Valve
3. By-Pass Valve
4. Level Indicator
5. Thermostat

Filling Up Clean Water Tank



Flush system uses water from this tank. Always fill up the tank with clean tap water.

1. Connect water supply to clean water inlet (1).
2. Pull inlet valve (2) upwards.
3. Check water level.
4. Restore inlet valve (2) to its original position.
5. Disconnect the water supply.

WARNING

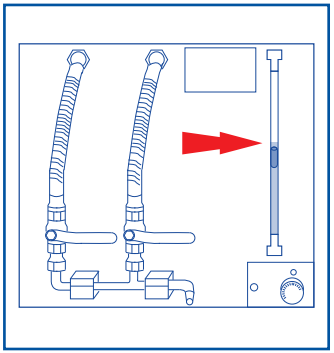
- DO NOT overfill the tank.
- DO NOT add anti-freeze agents in to the tank.

INFORMATION

If clean water tank is empty, a fault message displayed on warning panel.

3.6 Accessories

Checking Water Level

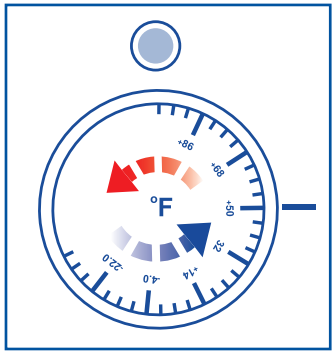


If the weather is cold, DO NOT fill the tank completely.

WARNING

Operating the flush when tank is empty may harm pump system. Always check the water level and add water if needed.

Setting the Thermostat



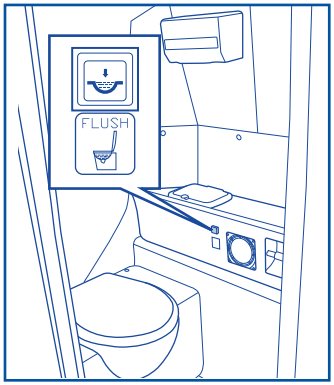
Set and leave the thermostat at 50° F to prevent freezing.

WARNING

If the weather is cold water tank and water pipes may be frozen. Thermostat system is running only while driving. Drain water tank and lavatory waste tank if the vehicle is to remain unused long period of time.

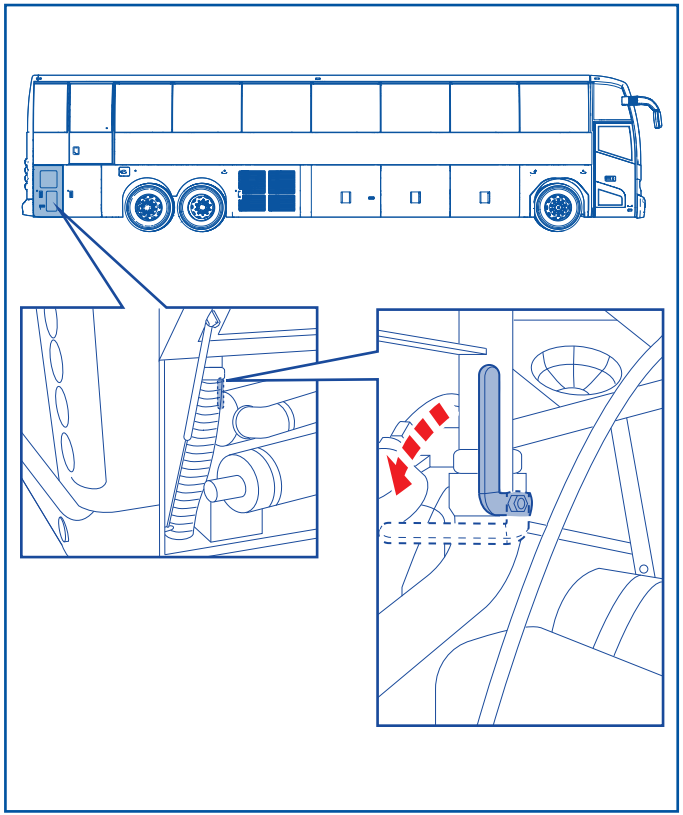
For drain clean water tank and lavatory waste tank;

1. Discharge lavatory waste tank.
2. Push flush button located in toilet unit as far as water flow is stopped.
3. Discharge lavatory waste tank again.



3.6 Accessories

Lavatory Waste Discharge



WARNING

Lavatory waste must be disposed of into appropriate and approved Disposal or Dump. Failure to do so may result in serious criminal and/or civil fines, penalties and/or incarceration.

1. Park the vehicle in a dump station and place your holding tank drain valve as close to the opening of the dump station as possible.
2. Pull the discharge valve lever down.
3. Restore the valve to its original position when discharging is finished.

INFORMATION

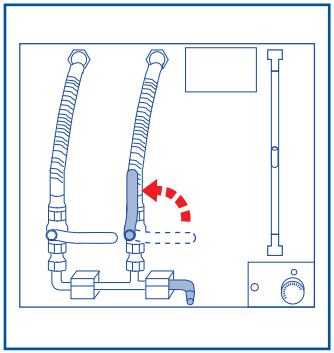
If lavatory waste tank is full, a fault message displayed on warning panel.

WARNING

Never use toilet unit if lavatory waste tank full.

3.6 Accessories

Rinsing Lavatory Waste Tank



WARNING

- Never fill up water over 5,28 gal.
- Only use clean water to rinse the tank.
- Discharge and rinse the lavatory waste tank regularly.

1. Ensure that discharge valve is closed.
2. Connect water supply to clean water inlet (1).
3. Pull by-pass valve (3) upwards.
4. Let the water pass from the valve for three-five minutes to help remove solids left behind.
5. Restore by-pass valve (3) to its original position.
6. Pull the discharge valve lever down to empty the tank.
7. Close the discharge valve and repeat the same procedure for three times.
8. Disconnect the water supply when rinsing is finished.



04 DRIVING

4.1 Pre-Driving
4.1.1 Driver's Seat Adjustment
4.1.2 Driver's Seat Belt
4.1.3 Rear View Mirror Sight Adjustment
4.1.4 Steering Wheel Adjustment
4.1.5 Checking Control Switches
4.1.6 Checking Indicator & Warning Lamps
4.1.7 Checking Air Pressure
4.2 Driving
4.3 Emergency Situations
4.3.1 Towing the Vehicle

4.1 Pre-Driving

Taking necessary actions before driving prevents possible problems while driving.

To have optimal conditions for your own and passenger's safety, always check all items that may affect driving performance.

Checking Headlights and Lamps

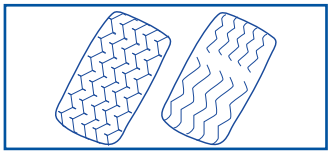
Check all headlights and external lamps before driving. Consult authorized TEMSA Service in case of any malfunctioning.

Checking Tire Pressures

Check the tires and rims before driving.

VISUAL INSPECTION

Check that tires (also spare tires) are not worn, torn, damaged etc.



Perform tire pressure adjustment according to the values given by the manufacturer for different weather conditions. (See page 150)
Check that all rims are installed and fixed properly.

WARNING

Tire pressure increases while driving. Check tire pressure when tires are cold.

Checking Systems for Leaks

Check fuel and lubrication systems of the vehicle for leaks before driving.

VISUAL INSPECTION

Consult authorized TEMSA Service in case of any leaks in the systems.

Checking Engine Oil

Check the level and colour of the engine oil (see page 178).

INFORMATION

Check the engine oil level when the engine is stopped and warm, wait till the oil flows back into the sump. Park the vehicle on level ground to get an accurate oil level reading.

Checking Coolant Level

Check the level of coolant before driving (see page 129).

VISUAL INSPECTION

Consult authorized TEMSA Service when coolant level is low.
Do not top up the tank before consulting the TEMSA Service.

4.1 Pre-Driving

Windshield Washer Fluid

Check the level of windshield washer fluid before driving. Top up the fluid if the level is low (see page 54).

WARNING
Hard water minerals may block the washer sprays.

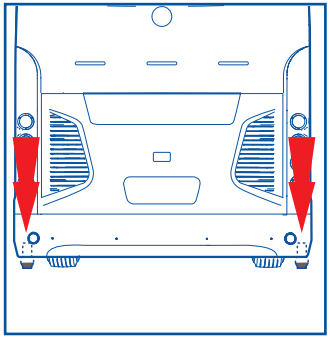
Checking Luggage

Check that luggage in the luggage compartment is correctly fixed.

According to traffic conditions sudden acceleration and deceleration may cause luggage sliding and hitting the luggage compartment walls. Arrange the luggage in order to prevent this.

Checking A/C Drain Off Nozzle

Check that air conditioner drain off nozzle is not blocked.



Knob at the end of the air conditioner nozzle may get blocked due to weather conditions.

The performance of the air conditioner would be inversely affected if condensate is not drained off.

Checking Emergency Situation Equipment

Check the emergency situation equipment before driving. Check the emergency equipment is fully functional.

Jack, spare tire, bulbs, spare fuse, first aid kit, fire extinguisher, wheel nut, lug wrench, chock, auxiliary rods and tool bag must be kept ready for use.

Warning and information labels are provided inside the vehicle. Inform the passengers about these labels and what to do.

INFORMATION
- Check that first aid kit contents are complete.
- Check the fire extinguisher has been serviced.

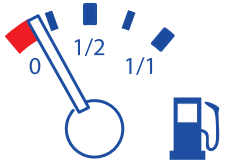
Checking Doors and Hatches

Check that all doors and lids are closed and locked before driving. Check that doors and lids are closed properly using rear view mirrors.

Checking Fuel Level

Check the fuel level by using the corresponding indicator located on instrument panel. Top up the tank with correct fuel if needed.

Do not wait until the fuel is completely consumed before refueling. Air remaining inside the tank may cause engine malfunction.



INFORMATION
Fuel level can be monitored in percentages through display.

4.1.1 Driver's Seat Adjustment

Driver's seat adjustment is customized to provide the optimum comfort for the driver during travel.

Driver's seat adjustment must allow easy access to service pedals, warning and operating lamps and the rear view mirrors must be fully visual.

INFORMATION

- Maximum weight capacity of driver's seat is 150 kg / 331 lbs and pressure of 7 bar / 102 psi.
- Driver's seat adjustment buttons are located at right side of the seat.

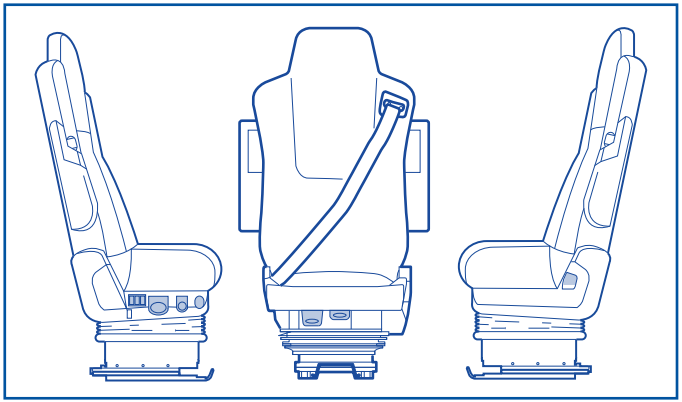
Driver's seat position can be adjusted with control buttons located on the seat.

- Height
- Suspension Hardness
- Fast Descend
- Cushion Depth
- Seat Upright Position
- Cushion Forward and Backward Slide
- Seat Forward and Backward Slide
- Lower Lumbar Support
- Upper Lumbar Support

Can be adjusted with these buttons.

WARNING

Adjustment must be performed when the vehicle is stationary. Adjustments performed during travel may cause accidents.



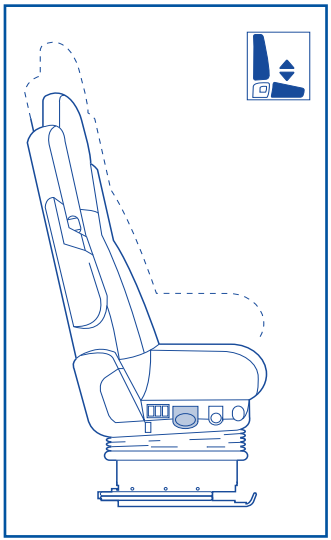
OPTIONAL

Some features may differ according to customer request.

4.1.1 Driver's Seat Adjustment

Height Adjustment

Adjust the height of the seat by pulling/pushing the button.

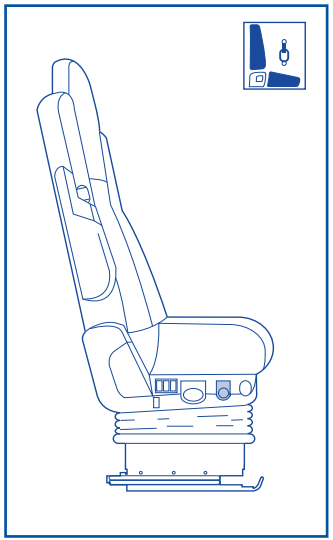


INFORMATION

Ensure that seat system contains air before performing height adjustment. See also "Fast Descend" to have information about how to fill air inside the seat system.

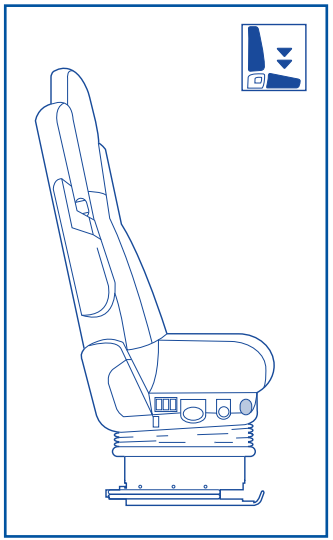
Suspension Hardness Adjustment

Pull the button to loosen seat springs. Push forward the button to harden seat springs.



Fast Descend

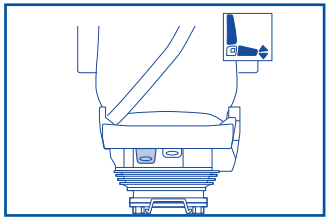
When the button is pressed, air in the system is released and height of the seat decreases.

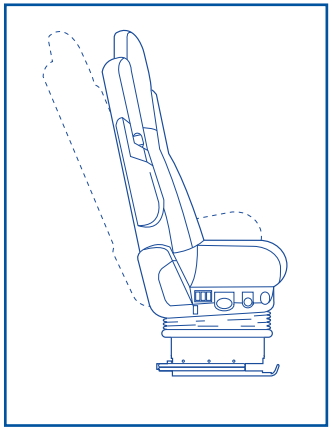


4.1.1 Driver's Seat Adjustment

Cushion Depth Adjustment

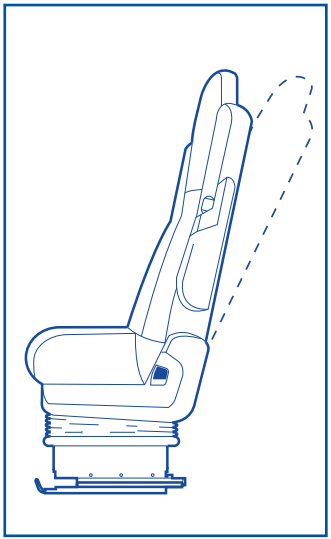
Keep the button pulled to adjust the cushion depth to desired position. Release the button to stabilize the cushion's position.





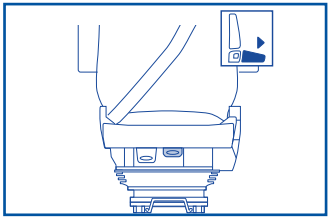
Seat Upright Position Adjustment

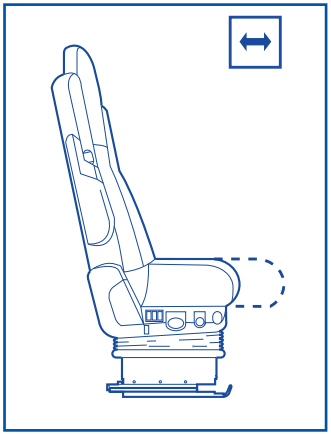
Adjustment lever is located at the left hand side of the driver. Pull the lever at utmost degree, adjust the seat to desired position and then release the lever.



Cushion Forward and Backward Slide Adjustment

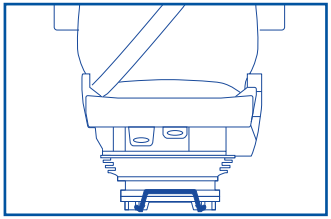
Keep the button pulled to perform cushion forward and backward slide adjustment. Release the button to stabilize the seat.

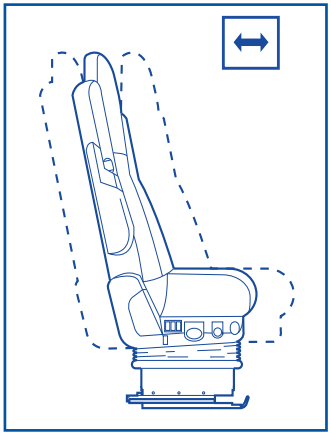




Seat Forward and Backward Slide Adjustment

Keep the lever pulled, adjust to the desired position and then release the lever to stabilize the seat.

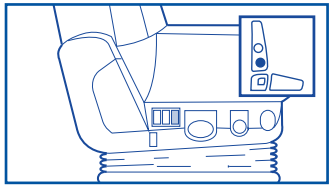




4.1.1 Driver's Seat Adjustment

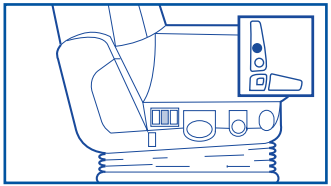
Lower Lumbar Support Adjustment

Upper lumbar support enables an optimal adaption on lower side of the backrest. Press upper side of the button to increase lower lumbar support. Press lower part of the button to decrease lower lumbar support.



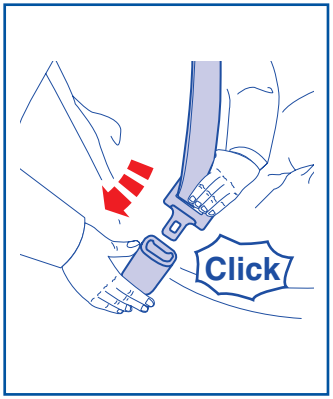
Upper Lumbar Support Adjustment

Upper lumbar support enables an optimal adaption on upper side of the backrest. Press upper side of the button to increase upper lumbar support. Press lower part of the button to decrease upper lumbar support.



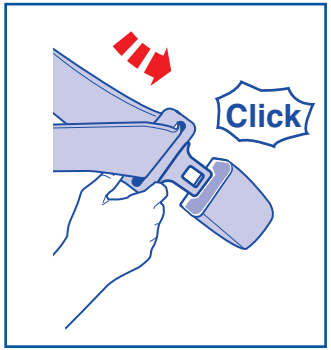
4.1.2 Driver's Seat Belt

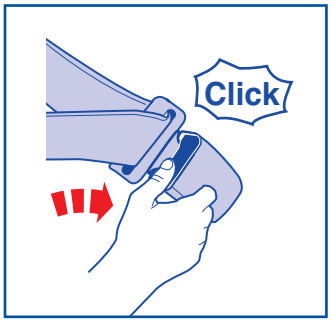
First adjust the seat, put on the seat belt and then perform other actions.



WARNING
Do a seat belt check once a week by pulling it while it is engaged, it should not release.

Insert the buckle latch into the belt buckle until it engages with a click. Press the red button on the belt buckle to release the belt. Belt should coil automatically.





4.1.3 Rear View Mirror Sight Adjustment

Adjust the positions of the rear view mirrors before driving (see page 36).

INFORMATION
Before driving, first adjust the seat position, put on seat belt and then adjust rear view mirrors positions. Adjust the mirrors to guarantee utmost visibility.

4.1.4 Steering Wheel Adjustment

Always check steering wheel position before driving (see page 51).

INFORMATION
Adjust the seat position first, put on seat belt and then adjust steering wheel position. Steering wheel position must not prevent full vision of indicator and fault lamps.

WARNING
Changing steering wheel position when driving will reduce control over the vehicle and could cause accidents.

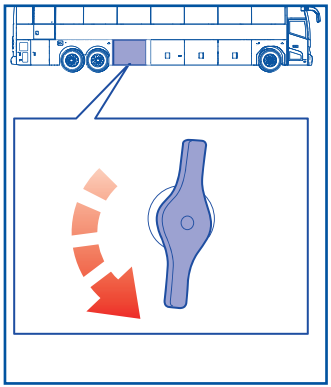
4.1.5 Checking Control Switches

Check that all control switches function properly before driving.

INFORMATION

TEMSA

All control switches function after main circuit breaker is switched on. Consult authorized TEMSA Service if any of the switches malfunction.



4.1.6 Checking Indicator and Warning Lamps

Indicator and warning lights provide all the information about the operations of the vehicle. It is of vital importance to check all of the indicator and warning lamps before driving.

WARNING

Warning lamps may indicate any malfunction during travel. Always find out the reasons for the malfunction. Park the vehicle in a convenient place and consult authorized TEMSA Service if you cannot detect or repair the malfunction.

4.1.7 Checking Air Pressure

Check that air pressure is enough to operate brake and other systems.

WARNING

DO NOT OPERATE THE BUS WITH AN AIR PRESSURE BELOW 100 PSI

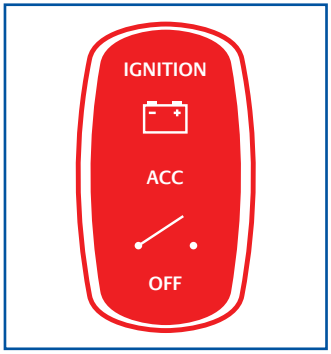


SAFETY IS IN YOUR HANDS

FASTEN YOUR SEATBELTS ON THE COACH

Value in motion

4.2 Driving



Push the upper side of ACC switch to activate electrical systems.

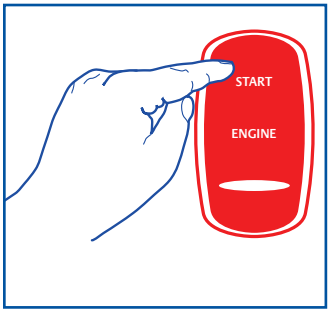
Starting the Engine

Check that parking brake is activated before starting the engine.

Push the ACC switch for activate electrical systems and check all the indicators and warning lamps on the instrument panel.

After performing all controls and adjustment, activate electrical systems and press of the start switch.

Only start the engine when “Neutral” gear is engaged.



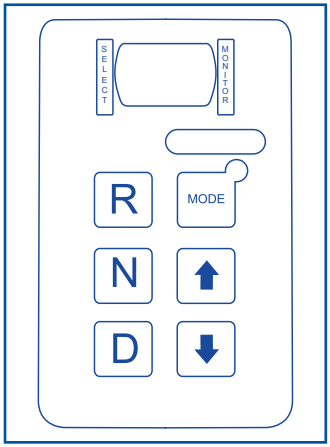
WARNING

Do not apply accelerator pedal while starting the engine. ECM system might be affected adversely.

INFORMATION

- Steering wheel will lock up if it is rotated when the ignition key is removed.
- When the electrical systems are activated, wait till the “ABS” warning lamp turns off before starting engine.

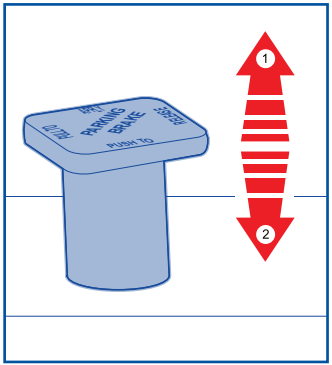
After starting the engine, apply the brake pedal and select gear according to the direction you choose to drive.



PRESS BRAKE PEDAL
BEFORE SELECTING GEAR

4.2 Driving

Push the brake lever downwards to release the parking brake.



Release the parking brake after starting the engine. Check that Ⓟ parking brake symbol located on instrument panel is off.

HAND BRAKE RELEASE
USE TEMPORARY ONLY
DURING BRAKE FAILURE

INFORMATION

Air is intended as an aid for brakes. Ⓟ The parking brake symbol does not extinguish until the required pressure of the tank is reached.

Vehicle is ready for driving. Release the service brake pedal gently. Check that brakes function properly before starting to drive.

INFORMATION

Your safety, engaging the gear is not allowed unless service brake pedal is applied.

Slowing Down and Stopping

Activate retarder brake instead of applying service brake on descends to slow down.

INFORMATION

These auxiliary brakes allow the vehicle to be slowed smoothly and almost free of wear.

Auxiliary brake systems cannot provide sufficient braking power to stop the vehicle. Stop the vehicle by applying service brake and then shift to “Neutral”.

INFORMATION

Switch off the ignition when the vehicle is not used for longer periods. This will reduce fuel consumption.

WARNING

- Do not stop the engine immediately after stopping the vehicle. Run the engine in idle position for 3 minutes to allow the proper cooling and then stop the engine.
- Never allow unauthorized people to drive the vehicle. Remove the ignition key before leaving the vehicle.

WARNING

Never switch off the ignition while driving. This may cause the steering wheel to lock up.

4.2 Driving

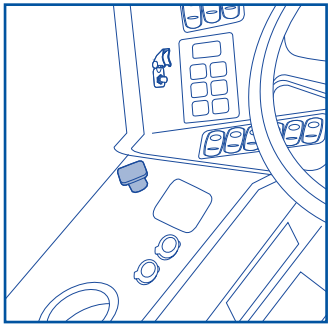
Parking

Activate the parking brake after stopping the vehicle.

Direct the tires towards the pavement when parking downhill.

Direct the tires away from the pavement when parking uphill.

Switch the ignition key to position “0” after stopping the engine and remove the key.



INFORMATION

ABS system will be deactivated when the parking brake is activated.

4.3 Emergency Situations

Additional emergency equipment is provided with the vehicle.

It is vital importance to use and maintain the equipment properly.

Check that first aid kit and fire extinguisher are located in correct positions.

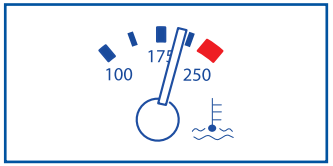
Warning and information labels are provided inside the vehicle. Inform the passengers about these labels and what to do.

Engine Overheat

INFORMATION

Check the engine temperature regularly while driving. Temperature indicator is located on the instrument panel.

When the engine coolant temperature rises, stop the vehicle in an appropriate place and activate the parking brake. Turn the air conditioning off. Run the engine at idle speed until the coolant temperature drops to normal level. Open the radiator lid gently without stopping the engine.



4.3 Emergency Situations

Engine Overheat

WARNING
Never open radiator cap when the engine is hot.

HOT SURFACES
Accessible parts would be hot when the engine maintenance lid is opened.

SAFETY GLOVES
Wear protective gloves before touching these parts.

ROTATING PARTS
Some parts still rotate although engine has stopped. Check that all parts are stationary before touching.

VISUAL INSPECTION
Sudden rise in coolant temperature may indicate damage to the belt.

CONSULT AUTHORIZED SERVICE
Consult authorized TEMSA Service in such a case before driving.

CONSULT AUTHORIZED SERVICE
Consult authorized TEMSA Service if the engine does not run despite checking all controls and applications.

Engine Failure

Simple problems may cause failure of the engine. There are some applications that can be done before consulting the authorized TEMSA Service.

Emergency Stop Switch could be pressed.	Release the Emergency Stop Switch.
Lack of fuel.	Refuel.
Empty Battery.	Check the battery charge. Replace battery.
DPF reaches sufficient level of soot loading.	Manual Regeneration must be perform (See page 134)
High Exhaust System Temperature	The HEST Lamp is a reminder to the driver that the DPF outlet temperature is more than approximately 840°F. No actions is required.

4.3.1 Towing the Vehicle

INFORMATION

- Laws regarding towing the vehicle vary according to state laws.
- All applications must be done by taking the present state's rules into consideration.

WARNING

Technical knowledge is needed for towing. Only road recovery service must perform this application.

INFORMATION

- Maximum speed limit is 9,3 mph / 15 km/h for vehicles with brake problems.
- Maximum speed limit is 12,5 mph / 20 km/h for vehicles with no brake problems.

WARNING

Materials used for towing vary according to malfunction type.

- For vehicles with brake problems: Tow bar
- For vehicles without brake problems: Tow rope, Tow chain can be used.

INFORMATION

- Tow rope length can be 5 meters / 16,4 ft and tow bar length can be maximum 1 meter / 3,28 ft.
- Red warning signs must be attached on tow ropes longer than 2.5 meters/8.2 ft.
- If the lighting system of the towed vehicle is malfunctioning, a 0,65x0,65ft /20x20cm red reflector must be placed behind the vehicle.

WARNING

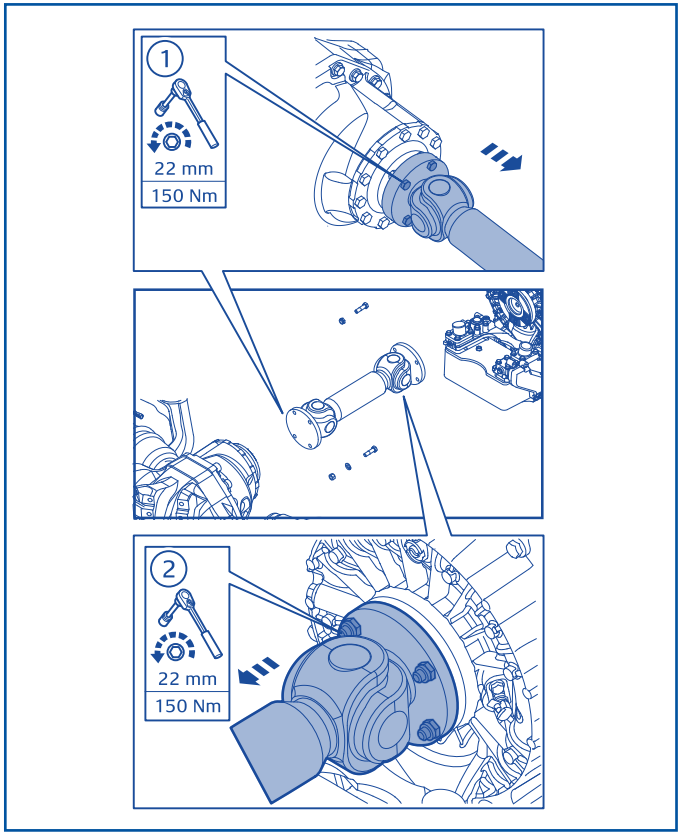
Drive axle shaft must be removed when coach is being towed to avoid possibility of damage to transmission.

In all towing applications:

- Insert the ignition key and switch to position "2".
- Run the engine to activate hydraulic steering wheel support and braking system.
- Do not activate retarder if engine is off.
- Remove the propeller shaft and shift to "Neutral" before towing process.
- Always tow the vehicle at low speeds.
- Resolve the problem mechanically in case of system air pressure malfunctioning (see also page 164).
- Check that tow rope, chain is parallel to the road during the towing process.

4.3.1 Towing the Vehicle

Removing the Propeller Shaft



1. Remove the propeller shaft, transmission connection nuts, then remove the propeller shaft from the transmission.
2. Remove the rear axle and shaft connection bolts and separate the shaft from the rear axle

WARNING

Parking brake can be locked when air pressure in the system is insufficient.
If parking brake is locked, please follow instructions on page 164.
Ensure the parking brake system function again before towing.

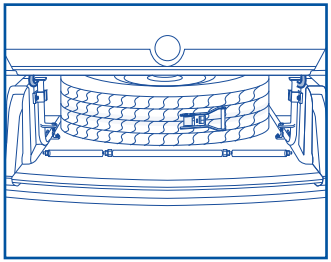
WARNING

After removal of the propeller shaft, place gearbox in a neutral position.

4.3.1 Towing the Vehicle

Access to Front Tow Hook

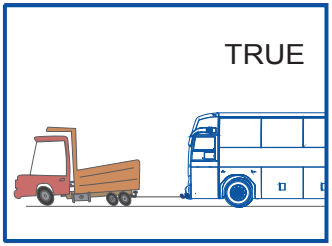
It is located inside the front bumper. See also page 158.

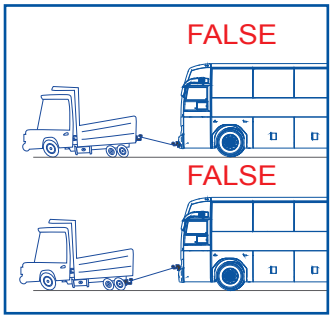




First deactivate the parking brake. Push the lower side of the ACC button and shift into “Neutral”. Electrical systems must be activated during towing process. Never deactivate the electrical systems, otherwise steering wheel will lock.

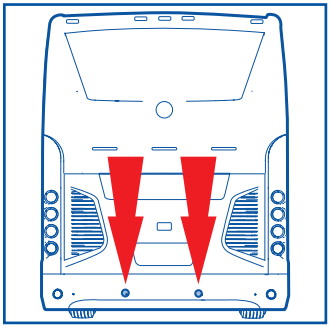
Make sure the tow rope is parallel to the road during the towing process. Otherwise it may cause serious damage to the vehicle.



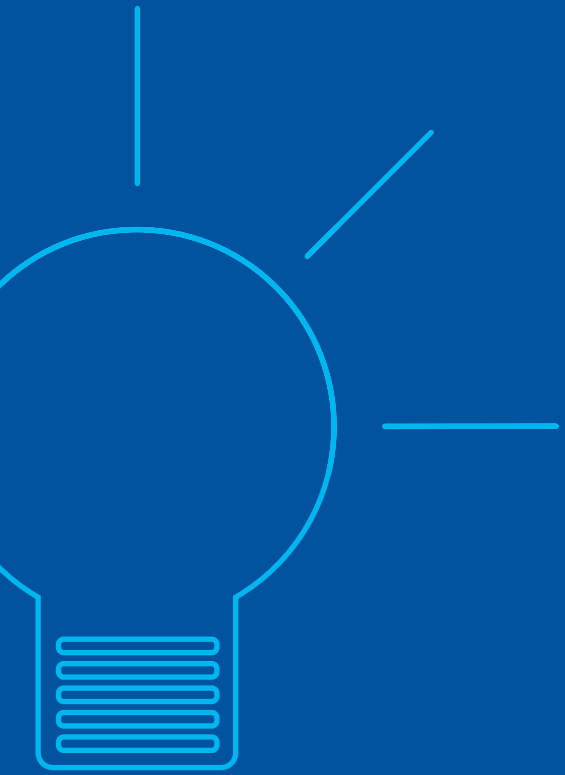


Access to Rear Tow Hook

It is located on rear bumper.



Use rear towing hook to tow any vehicle.

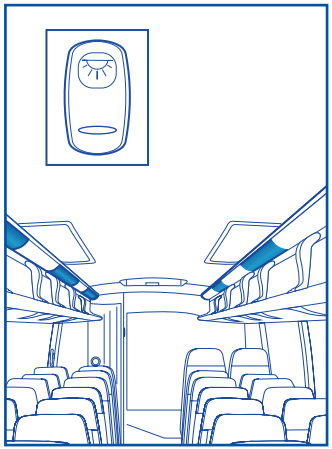


05 HEADLAMPS AND LAMPS

5.1 Internal Lamps
5.2 External Lamps
5.3 Illumination Lamps
5.4 Headlamps

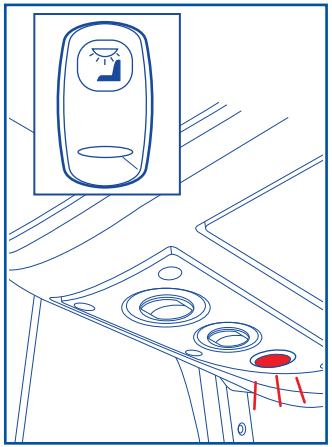
5.1 Internal Lamps

Corridor Lamps



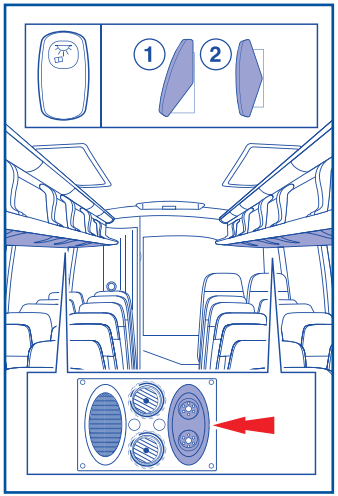
Corridor lamps are controlled by "INTERIOR LIGHT" switch located on the right control panel.

Driver's Reading Lamp



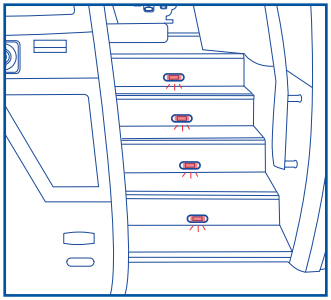
Driver's Reading lamps are controlled by "DRIVER'S READING LAMP" button located on the right control panel.

Passengers' Reading and Night Lamps



Passengers' Reading and Night Lamps are controlled by the "READING LIGHT" switch located on the right control panel.

Step Lamps



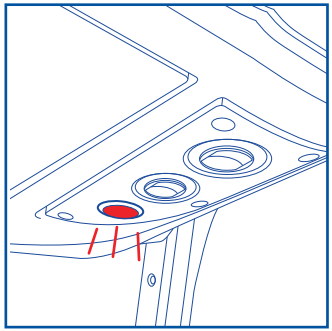
Step lamps are located on front steps. They light up automatically when the door is opened and light off when the door is closed.

INFORMATION

Step lamps provide visibility when getting on and off the vehicle.

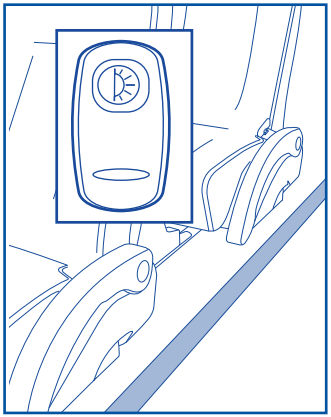
5.1 Internal Lamps

Entrance Illumination Lamp



Entrance Illumination Lamp is located above the door. It lights up when the door is opened and turns off when the door is closed.

Aisle Illumination Lamp

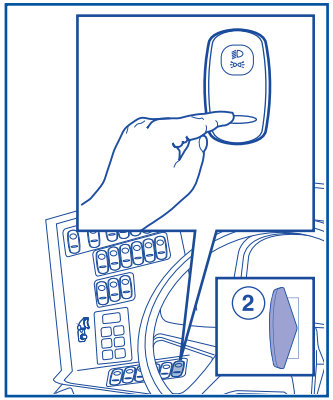


Aisle Illumination Lamps are controlled by “AISLE LIGHTS” button located on right control panel.

5.2 External Lamps

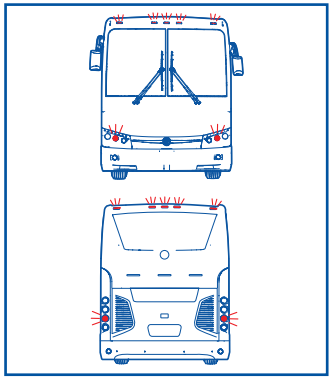
Parking Lamps

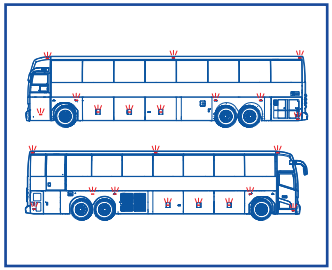
Parking lamps illuminate the exterior of the vehicle and make it visible to other drivers while parked.



Press “PARKING LAMPS” button located on left control panel turn on parking lamps.

INFORMATION
Consult authorized TEMSA Service in case of parking lamp malfunction.





WARNING
Never cover parking lamps with paint or label etc.

5.2 External Lamps

Brake Lamps

Brake lamps light up as long as the brake pedal is pressed.

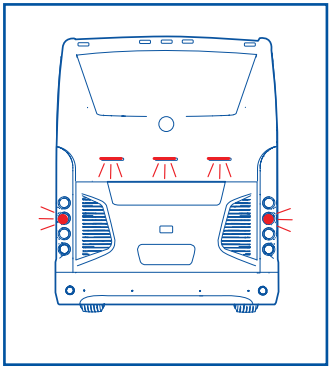
Your vehicle is equipped with seven brake lamps, four are located at rear lamp group and three are at the centre of the vehicle.

INFORMATION

Brake lamps also light up when the retarder brake system is activated and switched off when it is deactivated.

WARNING

Check that all brake lamps function properly before driving. Consult with authorized TEMSA service in case of malfunction.

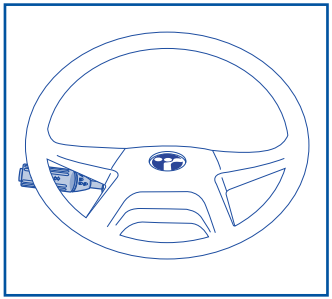


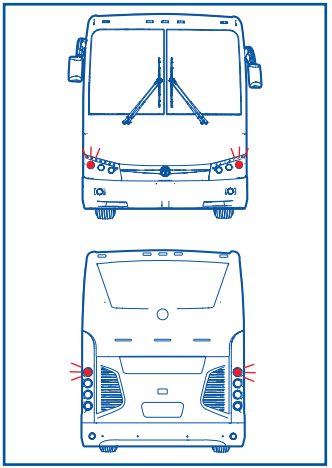
Turn Signals

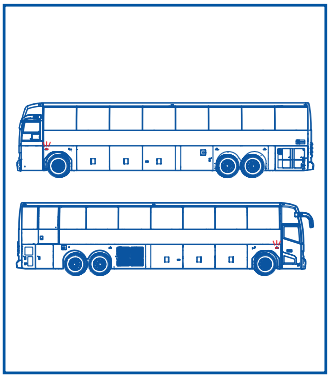
Indicates to other drivers that the driver intends a lateral change of position. They are located: 2 on front and 2 at rear, 2 on each side.

INFORMATION

- Indicators are controlled by left control lever located on the steering wheel control group.
- Consult authorized TEMSA Service in case of turn signal malfunction.







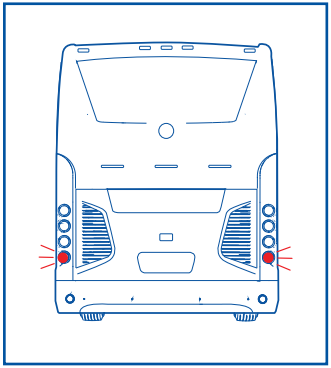
5.2 External Lamps

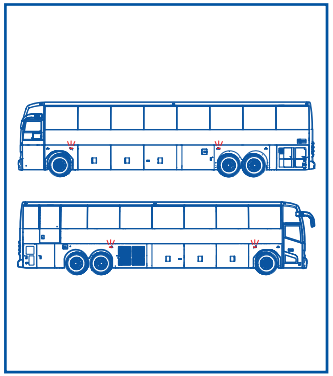
Rear Direction Indicator Lamp

Enables visibility of the vehicle for other drivers or pedestrians while driving in reversed direction.

INFORMATION

- Consult authorized TEMSA Service in case of rear direction indicator lamp malfunction.
- When the reverse gear is shifted, hazard warning flashers start flashing and buzzer sounds.





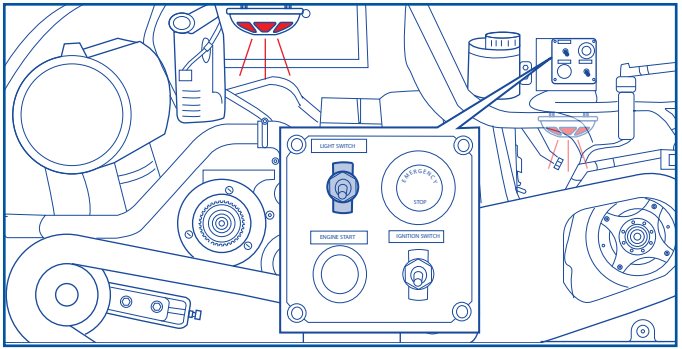
5.3 Illumination Lamps

Engine Inspection Lamps

Use light switch located on engine control panel to open engine inspection lamps.

WARNING

Turn off light switch after use.



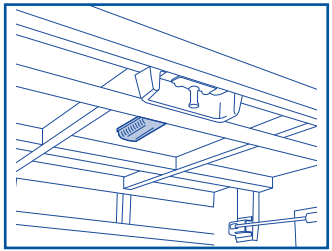
5.3 Illumination Lamps

Luggage Compartment Lamps

Luggage Compartment Lamps turn on when the luggage compartment lids are opened. They turn off when the lids are closed.

INFORMATION

Ignition key must be on position "2" to light up luggage compartment lamps.



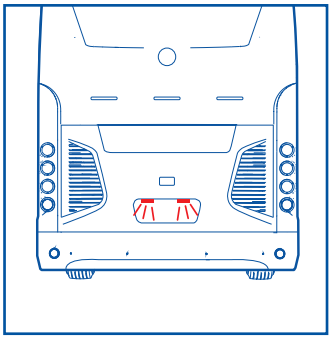
License Plate Lamps

License plate lamps, light up when parking lamps are activated. They turn off when parking lamps are deactivated.

License plate lamps enable visibility of rear plate when driving in darkness.

INFORMATION

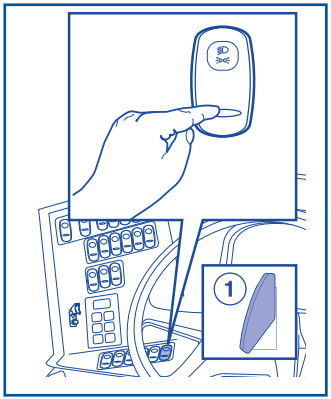
Consult authorized TEMSA Service in case of license plate lamp malfunction.

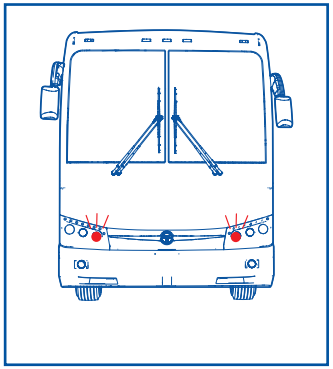


5.4 Headlamps

Low Beam Headlamps

Low Beam Headlamps provide medium visibility during driving.





INFORMATION

- Position the "PARKING LAMP AND LOW BEAM SWITCH" located on the left control panel to the second level to turn on the low beam headlights.
- Consult authorized TEMSA Service in case of low beam headlights malfunction.

5.4 Headlamps

High Beam Headlamps

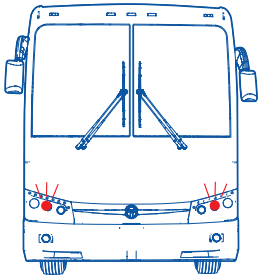
Provide long range visibility during travel. See also page 52 to activate high beam headlamps.

INFORMATION

High beams are used when the low beams are insufficient to provide high visibility.

WARNING

High beams will adversely affect the visibility of the driver on the opposite side. Never use the high beams if not necessary.



VISUAL INSPECTION

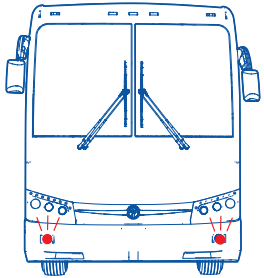
Warning lamp located on warning panel lights up as long as the high beam headlamps are on.

Front Fog Lamps

Enables higher visibility of the front part of the vehicle in wintry conditions. Press “FRONT FOG LAMP” button located on left control panel to turn the fog lamps on.

INFORMATION

- Turn the fog lamps on only when required by weather conditions. Unnecessary use of fog lamps may cause accidents.
- Abide to country laws.





06 DOORS AND LIDS

6.1 Front Door
6.2 Lids

6.1 Front Door

The locking mechanism is dedicated to open or close the doors from outside when engine is in ON or OFF position. Push the cap to the right to open. Insert the key to the socket, turn clockwise and then turn the locking lever clockwise.

WARNING

Never use door opening switches if the door is locked. This could result in damage to the locking mechanism.

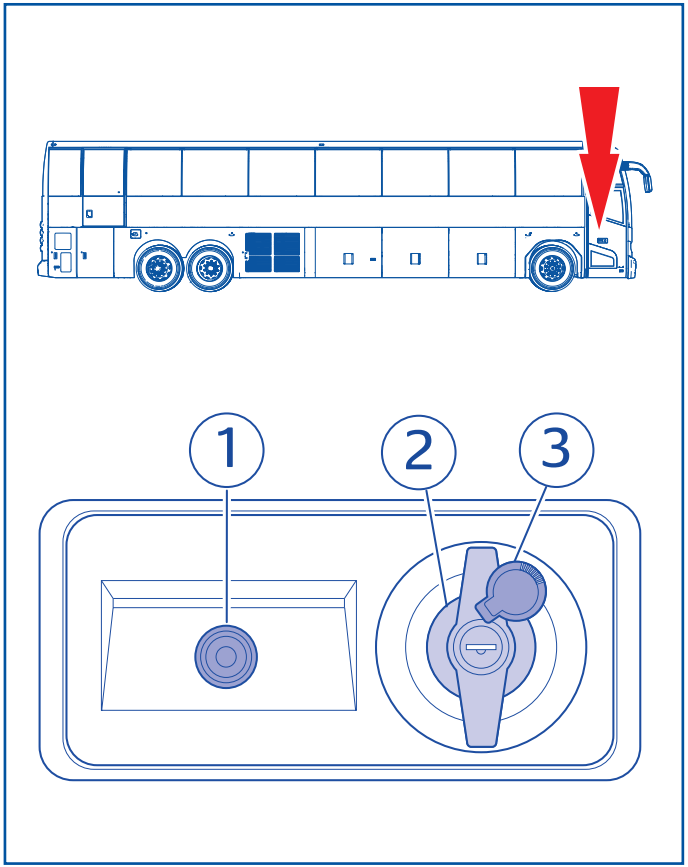
Press On/Off switch to open the door. Press switch to close the door from outside.

1. On/Off Switch
2. Locking Lever
3. Lock Protection Cap

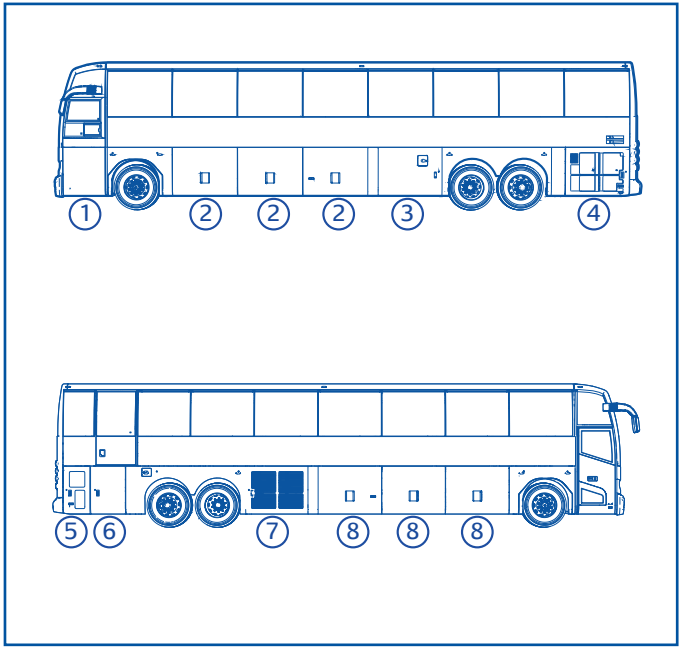
INFORMATION

Lock protection cap prevents dust, oil, etc. from contaminating the lock mechanism. Always keep the cap closed after use.

To lock the mechanism from outside, at first, rotate the lever anticlockwise and release. Then insert the key in its socket and turn anticlockwise.



6.2 Lids



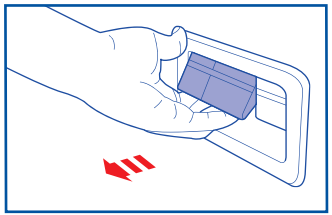
1. Emergency Situation Equipment Lid
2. Left Luggage Lids
3. AdBlue and DPF Maintenance Lid
4. Radiator Maintenance Lid
5. Lavatory Tank Maintenance Lid
6. Wheelchaired Passenger Lift Lid
7. Battery Maintenance Lid
8. Right Luggage Lids

6.2 Lids

Emergency Situation Equipment Lid

The locking mechanism is dedicated to locking or unlocking the lid.

Insert the key in its lock and turn anti-clockwise. Pull the handle as shown in the figure and lift the lid.



Push the lid downwards and turn the key clockwise to lock the mechanism.

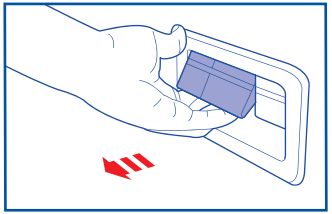
WARNING

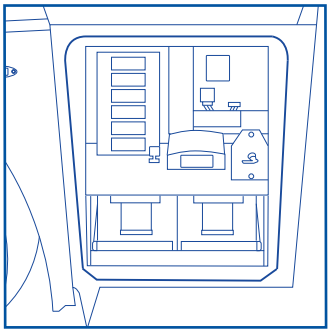
- Always hold the handle while opening and closing the lid. Never hold edges and inner parts of the lid. Your hand may get caught.
- Do not use this area for storage.

Battery Maintenance Lid

The locking mechanism is dedicated to locking or unlocking the lid.

Insert the key in its lock and turn anti-clockwise. Pull the handle as shown in the figure and lift the lid.





Push the lid downwards and turn the key clockwise to lock the mechanism.

WARNING

- Always hold the handle while opening and closing the lid. Never hold edges and inner parts of the lid. Your hand may get caught.
- Do not use this area for storage.

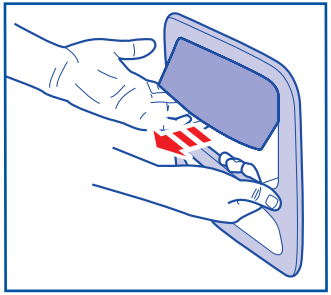
6.2 Lids

Left Luggage Lids

The locking mechanism is dedicated to locking or unlocking the lid.

Insert the key in its lock and turn anti-clockwise. Pull the handle as shown in the figure and lift the lid.

Push the lid downwards and turn the key clockwise to lock the mechanism.



WARNING

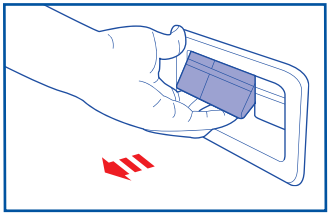
Always hold the handle while opening and closing the lid. Never hold edges and inner parts of the lid. Your hand may get caught.

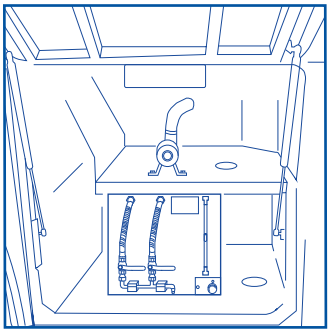
Lavatory Tank Maintenance Lid

The locking mechanism is dedicated to locking or unlocking the lid.

Insert the key in its lock and turn anti-clockwise. Pull the handle as shown in the figure and lift the lid.

Push the lid downwards and turn the key clockwise to lock the mechanism.





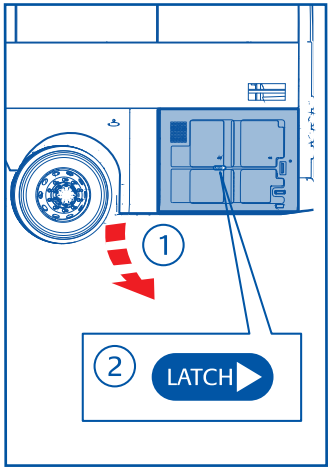
WARNING

- Always hold the handle while opening and closing the lid. Never hold edges and inner parts of the lid. Your hand may get caught.
- Do not use this area for storage.

6.2 Lids

Radiator Maintenance Lid

The locking mechanism is dedicated to locking or unlocking the lid. To open the lid pull it up until it stops, press the latch to release the locking mechanism and continue to pull upwards movement.

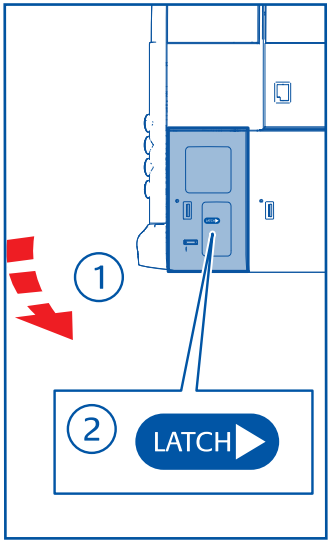


HOT SURFACES
When opening the engine maintenance lid beware of hot surfaces.

WARNING
Never hold edges or inner parts of the lid while closing. Your hands may get caught.

Engine Maintenance Right Lid

The locking mechanism is dedicated to locking or unlocking the lid. To open the lid pull it up until it stops, press the latch to release the locking mechanism and continue to pull upwards movement.



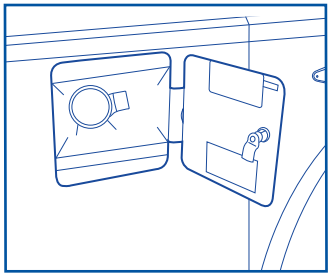
HOT SURFACES
When opening the engine maintenance lid beware of hot surfaces.

WARNING
Never hold edges or inner parts of the lid while closing. Your hands may get caught.

6.2 Lids

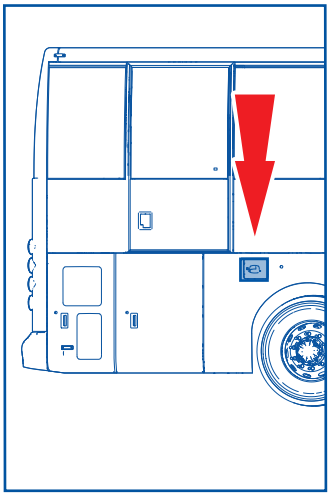
AdBlue Outer Lid

The locking mechanism is dedicated to locking or unlocking the lid. To open the lid turn the key anti-clockwise and pull upwards, to close push and turn the key clockwise.



WARNING

- Always hold the handle while opening and closing the lid. Never hold edges and inner parts of the lid. Your hand may get caught.
- Do not use this area for storage.



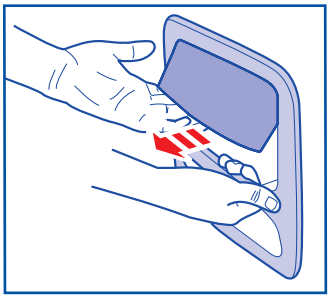
6.2 Lids

Right Luggage Lids

The locking mechanism is dedicated to locking or unlocking the lid.

Insert the key in its lock and turn anti-clockwise. Pull the handle as shown in the figure and lift the lid.

Push the lid downwards and turn the key clockwise to lock the mechanism.



WARNING

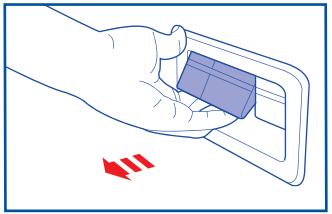
Always hold the handle while opening and closing the lid. Never hold edges and inner parts of the lid. Your hand may get caught.

Fuel Tank Maintenance Lid

The locking mechanism is dedicated to locking or unlocking the lid.

Insert the key in its lock and turn anti-clockwise. Pull the handle as shown in the figure and lift the lid.

Push the lid downwards and turn the key clockwise to lock the mechanism.

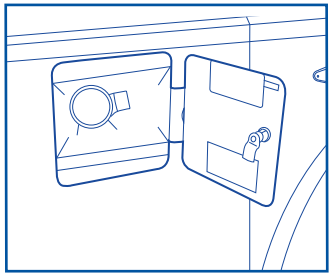


WARNING

- Always hold the handle while opening and closing the lid. Never hold edges and inner parts of the lid. Your hand may get caught.
- Do not use this area for storage.

Fuel Tank Outer Lid

The locking mechanism is dedicated to locking or unlocking the lid. To open the lid turn the key anti-clockwise and pull upwards, to close push and turn the key clockwise.

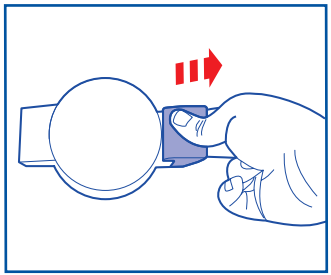


INFORMATION

Fuel tank outer lid is located at outer part of the fuel tank maintenance lid.

Fuel Tank Cap

Push the handle to the right to open fuel tank cap.



WARNING

Spring mechanism is provided on the cap. When the handle is pushed, cap is released automatically.

6.2 Lids

Engine Maintenance Lid

The locking mechanism is dedicated to locking or unlocking the lid.

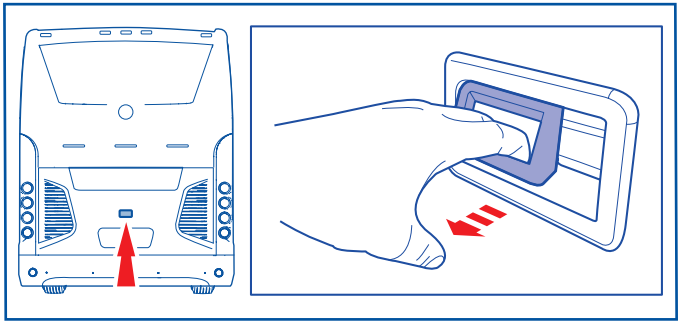
To open the lid turn the key clockwise and pull the handle to open, to close push and turn the key anti-clockwise.

HOT SURFACES

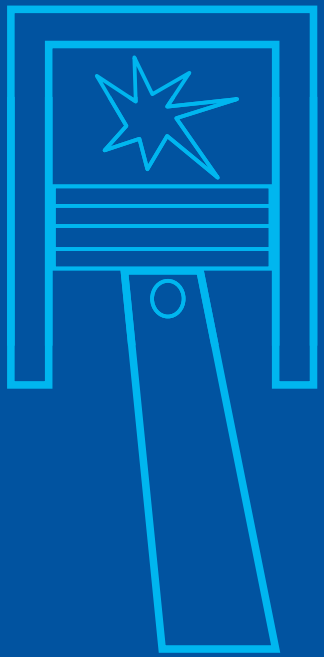
When opening the engine maintenance lid beware of hot surfaces.

WARNING

- Always hold the handle while opening and closing the lid. Never hold edges and inner parts of the lid. Your hand may get caught.
- Do not use this area for storage.



THIS PAGE INTENTIONALLY LEFT BLANK



07 ENGINE

7.1 General Information
7.2 Expansion Tank
7.3 Drive Belts
7.4 Engine Oil Dipstick
7.5 Air Filter
7.6 Steering Wheel Hydraulic Oil Tank
7.7 Engine Control Panel
7.8 DPF Regeneration
7.9 Engine Compartment Automatic Extinguisher System

7.1 General Information

Your vehicle is equipped with diesel technology which is designed to provide a safe, economical and efficient driving experience.

Safety Warnings

Check that general safety rules, all warning signs and information are taken into consideration before performing any work in the engine compartment.

WARNING

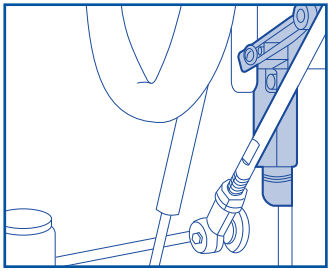
Occupational knowledge and experience is required for replacing drive belts and adjusting belt tension. Information given in this section is intended for people with technical knowledge and competence at required level. Please consult authorized TEMSA Service for all matters regarding drive belts and engine compartment.

WARNING

- Never allow unauthorized people to drive the vehicle. Remove the ignition key before operating on the engine compartment.
- Always stop the engine and wait until it's cold before performing any work in the engine compartment.
- Performing work when the engine is **hot** may cause burning or injury.

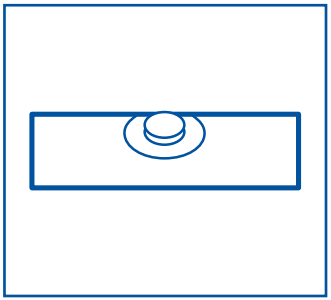
Safety Switch

Prevents the start up of the engine and avoids possible accidents when the maintenance lid is opened.



7.2 Expansion Tank

High temperature formed during the operation of the engine is decreased by engine coolant.



Open the engine maintenance lid to access the expansion tank.

High temperature formed in engine compartment decreases whereas the engine coolant temperature increases. Engine coolant expands due to temperature differences.

Expanding coolant will form steam inside the system. Over-pressurized steam is released automatically through expansion safety exits located on the top of the tank.

WARNING

- Check the engine coolant temperature from the instrument panel before performing any operations on the expansion tank. Never loosen or remove the expansion tank cap if the engine temperature is hot. Pressurized steam may escape from tank.
- Never remove the expansion tank cap completely at once. Turn the cap slowly to release the pressurized steam. Then remove the cap completely.



Engine coolant level is checked by sensor inside the expansion tank. "Cooling water low" warning lamp lights up in case of insufficient coolant level.

INFORMATION

Check the coolant level when the engine is cold. Coolant level must not be below "MINIMUM" sign on the tank.

WARNING

Coolant level increases as its temperature rises. Over-filled tank may overflow.

Includes distilled water, antifreeze and corrosion inhibitor. Distilled water and anti-freeze mixing ratio varies according to weather conditions. Less antifreeze is needed in warm conditions than for cold conditions, use table as reference. The water used as coolant must be soft and well filtered.

WARNING

Engine coolant must be replaced periodically only by authorized TEMSA Service.

Freeze Protection Temperatures for Anti-freeze Concentrations (1)

Protection to:	Concentration
-15˚C (5˚F)	30% glycol, 70% water
-24˚C (-12˚F)	40% glycol, 60% water
-37˚C (-34˚F)	50% glycol, 50% water
-52˚C (-62˚F)	60% glycol, 40% water

(1) Ethylene glycol-based antifreeze

INFORMATION

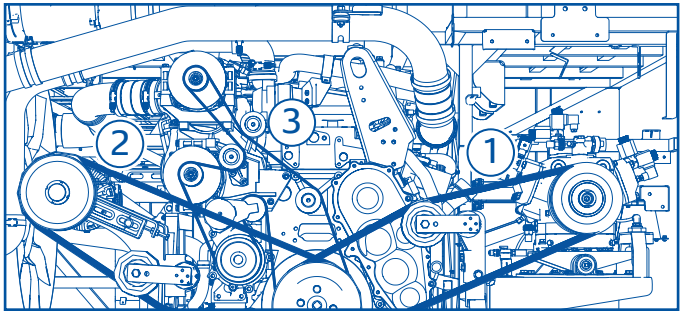
- Using antifreeze is crucial for the performance of the vehicle.
- Using antifreeze in summer would reduce corrosion and sedimentation inside the engine.
- Never fill up the tank only with antifreeze.
- In addition to this, antifreeze protects the engine against overheating as it increases the boiling point of water.

WARNING

- Addition or replacement processes of engine coolant must only be performed by authorized TEMSA Service.
- Contact with engine coolant may cause irritation on skin and eyes. If this occurs seek medical help.

7.3 Drive Belts

Drive belts must only be removed and replaced by authorized service personnel. All operations explained in this section must be carried out when the engine is stopped. Engine compartment temperature increases as long as the engine runs. Therefore wait till the engine temperature drops to room temperature before performing any operations in this compartment.



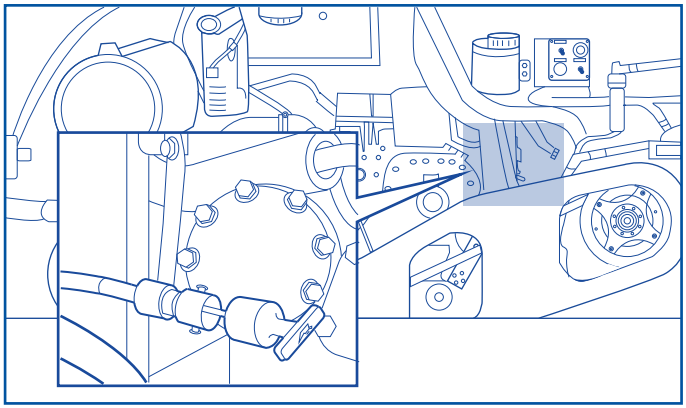
Two main drive belts are located on the engine:

1. Air Condition Compressor Drive Belt
2. Hydrofan Drive Belt
3. Alternator Drive Belt

Occupational knowledge and experience is required for replacing drive belts and adjusting belt tension. Information given in this section is intended for people with technical knowledge and competence at the required level. Please consult authorized TEMSA Service for all matters regarding drive belts and engine compartment.

7.4 Engine Oil Dipstick

Oil dipstick is located on the engine. Open the engine maintenance lid to access the stick.

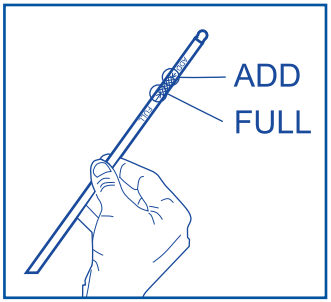


VISUAL INSPECTION

Torn or cracked cylinders may cause leaks resulting in water and oil mixing.

INFORMATION

Always wait for at least 15-30 minutes after stopping the engine.



Rotate the stick anticlockwise and pull out after it is released. Maximum and minimum markings are located at the end of the stick. Oil level is determined by the lines.

SAVE THE ENVIRONMENT

- Disposal of engine oil should be done according to the hazardous waste disposal regulations.
- Take necessary precaution to avoid oil overflow while adding engine oil to the system.

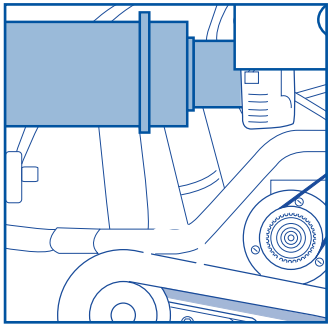
Park the vehicle on level ground to get an accurate oil level reading. Stop the engine. Wait until cool down so that the oil can flow back in to the oil sump. Pull out the dipstick and clean with a clean cloth. Insert the stick into its socket. Pull out the dipstick again. Check whether the oil level is between the ADD and FULL markings. Check the engine oil level regularly.

7.5 Air Filter

Air filter is located in the engine compartment.

INFORMATION

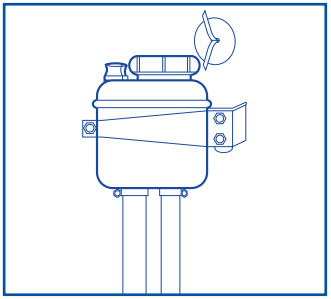
For more information about air filter maintenance and replacement (see page 180).



Air filter is formed of three sections:

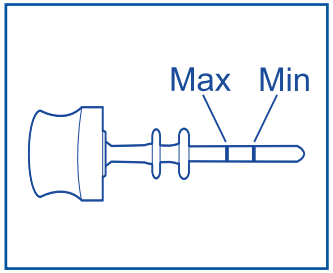
Body: Air filter is located inside this chamber.
Cap: Separates the filter from the surrounding.
Filter: Removes solid particles and foreign substances from the air.

7.6 Steering Wheel Hydraulic Oil Tank



The oil dipstick and oil filler cap are located on the steering wheel hydraulic oil tank.

Oil Dipstick



Oil level inside the steering hydraulic system must be between two indication markings. Lower marking indicates minimum level and upper one indicates maximum level.

MAX: Highest level allowed.
MIN: Lowest level allowed.

SAVE THE ENVIRONMENT

- Disposal of steering oil should be done according to the hazardous waste disposal regulations.
- Take necessary precaution to avoid oil overflow while adding steering oil to the system.

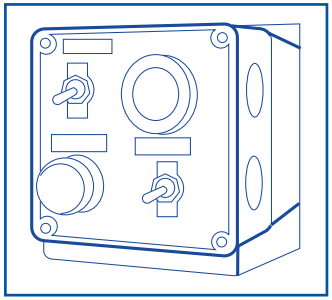
Oil Filler Cap

Turn the cap anti-clockwise to remove and fill oil.
Turn the cap anti-clockwise to remove and have access to replace steering hydraulic tank filter.

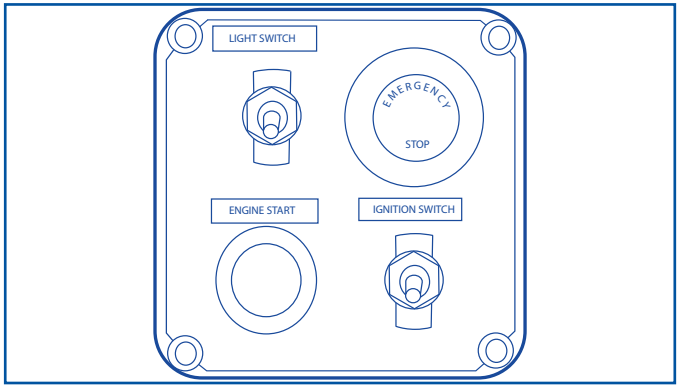
WARNING
To reinstall the cap, turn clockwise.

INFORMATION
Check the steering hydraulic oil level periodically.

7.7 Engine Control Panel



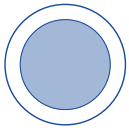
Your vehicle is equipped with a control panel to run the engine during maintenance work.



To start the engine from rear:



Turn "Ignition Switch" to "ON" position.



Start engine by pressing "Engine Start" button.

To stop the engine:



Press "Emergency Stop" button to stop the engine.

WARNING
Rotate "Emergency Stop" button clockwise to bring it into first position and turn "Ignition Switch" to "OFF" position after stopping the engine.

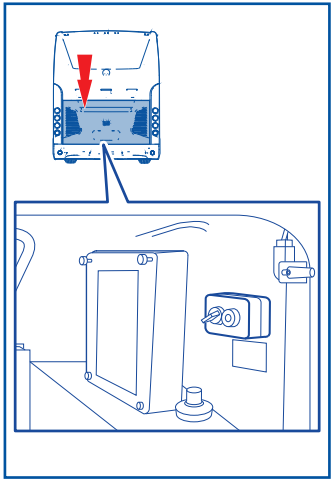
7.8 DPF Regeneration

The vehicles are equipped with Automatic DPF Regeneration. If for any reason an automatic regeneration has not happened and DPF soot loading reaches a specified limit, the DPF lamp start to flash and the “Check Engine Lamp” lights up. At this point, engine recommend a manual regeneration.

Manual Regeneration

- Select an appropriate location to park the vehicle (such as clean concrete or gravel, not grass or asphalt)
- Park the vehicle away from anything that can burn, melt or explode.
- Park the vehicle securely. Place the transmission in park, if provided, otherwise in neutral. Set wheel chocks at front and rear of at least one tire.
- Keep a fire extinguisher nearby.
- Check the exhaust system surfaces. Confirm that nothing is on or near the exhaust system surfaces (such as tools, rags, grease, or debris).
- Verify the following conditions are met in the vehicle:

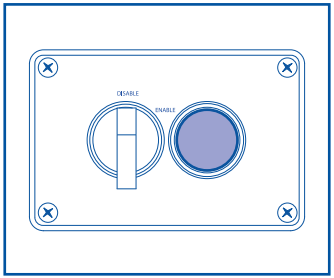
- The brake pedal is released.
- The transmission is in neutral or park.
- The vehicle speed is 0 mph (km/h).
- The throttle pedal is released.



DPF Regeneration switch is located on AdBlue tank maintenance lid. The Regeneration switch must be pressed for four seconds Black switch has to stay in OFF position at all position.
Monitor the vehicle and surrounding area during the manual regeneration. If any unsafe condition occurs, shut off the engine immediately.

WARNING

If the DPF Lamp and Check Engine Lamp do not turn off after a complete manual regeneration, contact your authorized TEMSA Service.



7.9 Engine Compartment Automatic Extinguisher System

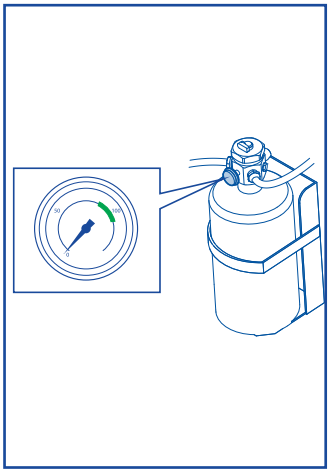
Your vehicle is equipped with an automatic extinguisher system which is activated automatically in case of a fire.
Extinguisher system contains detector tube and extinguisher cylinder. Prevent a possible fire, extinguisher system is activated automatically and extinguishant is sprayed in engine compartment room.

OPTION
This feature is optional. It may not be included in all models.

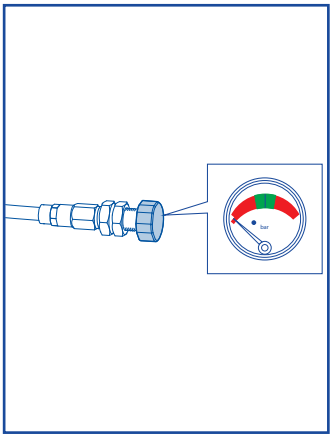
WARNING
A regular program of systematic maintenance must be established for continuous, proper operation of all extinguisher system units, and to avoid violating the warranty.

If a fire break out on engine compartment room, warning lamp lights up on instrument panel and fire alarm sounds.
See page 70 for more information about actions to be taken in the event of a fire.

WARNING
TEMSA
Detector tube and extinguisher cylinder have manometers. The pressure can be read off on manometer and shall be within the green sector. Manometers should be controlled regularly. Consult authorized TEMSA Service to control engine compartment extinguisher system.



WARNING
Please contact authorized service for all matters regarding Engine Compartment Automatic Extinguisher System. Fire extinguisher with high pressure will drain out. It may cause serious injury.



INFORMATION
Engine compartment automatic extinguisher system should be controlled monthly. See also Warranty and Maintenance manual for more information about Engine Compartment Automatic Extinguisher System maintenance.

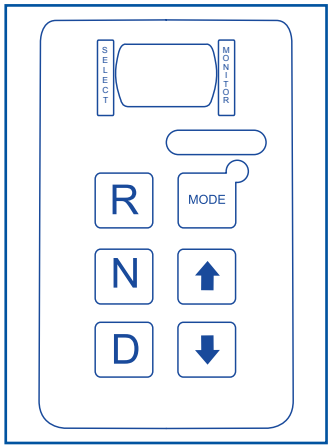


08 TRANSMISSION

8.1 Automatic Transmission

8.1 Automatic Transmission

When initially selecting positions Upshift, Downshift, D or R, press firmly on the brake pedal to ensure that the vehicle is stationary with the engine idling.
The gear selector should not be downshifted to 1 and 2 at speeds above 49,7 mph (80 km/h).



Reverse Gear Button
Press button to reverse the vehicle. Continue braking when the vehicle is stationary and neutral gear is engaged. Press reverse gear button. Move your foot gently off the brake pedal and move the vehicle backwards.

WARNING
Never select R while the vehicle is in forward motion.

Neutral Gear Button
Press button to disconnect the transmission from the wheels so the vehicle can move freely under its own weight. Parking brakes can be used when neutral gear is shifted.

INFORMATION
When ambient temperature is below -15 °C/5°F keep the engine running in idle speed until the engine temperature reaches 40 °C/104°F.

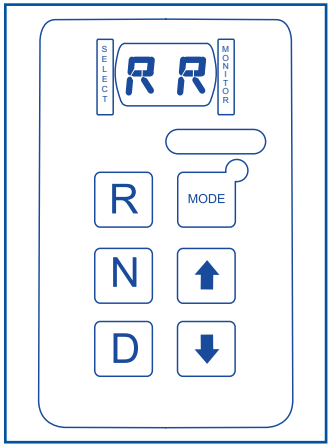
Forward Gear Button
Press button to allow the vehicle to move forward and accelerate through its range of gears. D is the normal driving position and should be used as often as possible to help improve fuel economy.

Gear Display
Actual gear is displayed on the right hand side and desired gear is displayed on the screen.

INFORMATION
Push D for forward or R for reverse to shift the transmission into a desired range or gear temperature reaches 40 °C/104°F.

INFORMATION
The transmission will not shift into a range from Neutral or between D and R if the engine's RPM is over 1000 rpm.

8.1 Automatic Transmission



When the transmission shifts into reverse gear, the display will have an R in both locations. There is only one reverse gear.

Upshift Button
To select the gear manually press Upshift Button.

Downshift Button
To select the gear manually press Downshift Button.

Economic Drive Mode
This mode is used for normal driving. The gearbox changes gears automatically at a lower engine speed to achieve the lowest possible fuel consumption.

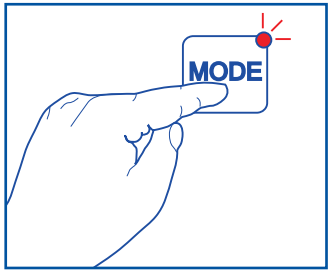
INFORMATION
Driving mode can be selected at any time.

Powerful Drive Mode
The mode is used when powerful driving is required.
The vehicle performs at maximum power when it is activated.

INFORMATION
Fuel consumption increases when powerful drive mode is activated.

Drive Mode Selection
When ignition key is switched on, economic drive mode is activated automatically.

By pressing the Mode Button the Power mode is selected and the red LED on the right top corner will light up to show the mode is selected.



8.1 Automatic Transmission

Stop and Change Direction

The vehicle must be stopped before reversing. Keep the brake pedal pressed before shifting between Forward and Reverse gear modes.

- Move your foot off the accelerator pedal.
- Apply service brake till the vehicle stops.

INFORMATION

For short term stopping use the service brake, for longer stops shift into neutral gear and use service brake.

Sudden Acceleration (Kick down)

Automatic shift to a lower gear (kick-down) is achieved by depressing the accelerator pedal fully. An downshift will be achieved when approaching the top speed for a particular gear or by releasing the accelerator pedal slightly. Kick-down can be used for maximum acceleration.

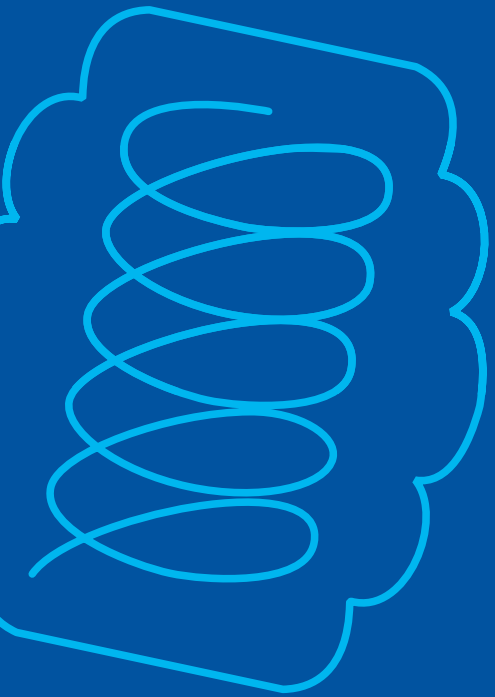
INFORMATION

Sudden acceleration highly increases fuel consumption.

WARNING

If the driver should leave the driver compartment with the engine running, Neutral (N) gear must be engaged and parking brake must be activated.

THIS PAGE INTENTIONALLY LEFT BLANK



09 SUSPENSION

9.1 Kneeling-Lifting
9.1.1 Front Kneeling
9.1.2 Lifting

9. Suspension

The suspension system of your vehicle is composed of:

At the front:
2 Air Bellows,
2 Suspensions,
1 Stabilizer.

At the Back:
4 Air bellows,
4 Suspensions.

Air bellows and suspensions provide comfortable driving and additional safety when cornering.

Stabilizer

INFORMATION

- Stabilizers preserve vehicle stability on sharp curves and during sudden maneuvers.
- Stabilizers minimize vehicle swaying and lurching on sharp curves.
- Stabilizers restrict the vehicle from swerving during sudden breaking.
- Stabilizers disable the wheels to sway in different directions when the axles of the vehicle are damaged during driving.

Air Bellows

INFORMATION

Air bellows provide stability for the vehicle.

Air compression value on the air bellows other than recommended by authorized TEMSA Service may damage the air bellows.

WARNING

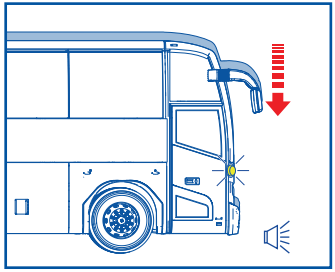
Prevent any contact with substances which may damage the air bellows, such as oil, diesel, dirt etc.

CONSULT AUTHORIZED SERVICE

Stop the engine and consult authorized TEMSA Service in case of air bellow malfunction.

9.1 Kneeling-Lifting

Air bellow compression can be changed in order to adjust the vehicle body height from the ground.



INFORMATION

The bus is equipped with kneeling system that consist of an outside warning lamp at the frame of front door and a buzzer. Kneeling lamp flashes and beeps during the kneeling system is active.

WARNING

- Do not continue driving if you encounter a problem with the KNEELING-LIFTING system.
- Before jacking up the vehicle, deactivate the KNEELING - LIFTING system.

CONSULT AUTHORIZED SERVICE

Consult authorized TEMSA Service in case of kneeling-lifting malfunction.

9.1.1 Front Kneeling

Your vehicle is equipped with a Front Kneeling System to ease the entering and exiting of passengers.



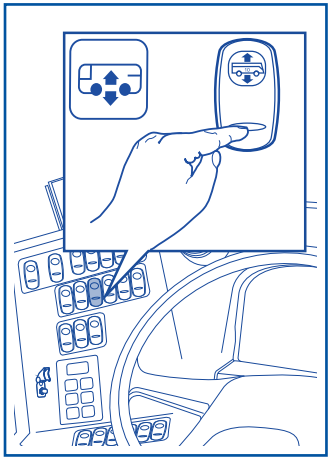
INFORMATION

Body height can be decreased by maximum 80 mm/3,14 inch.

INFORMATION

If Kneeling system was activated, transmission won't engage.

Enables adjustment of body leveling. The warning lamp on the button lights up as long as the kneeling-lifting operation is being performed. Press lower side of KNEELING-LIFTING button located on the left control panel to decrease the body height.



9.1.2 Lifting

Your vehicle is equipped with a Lifting System.

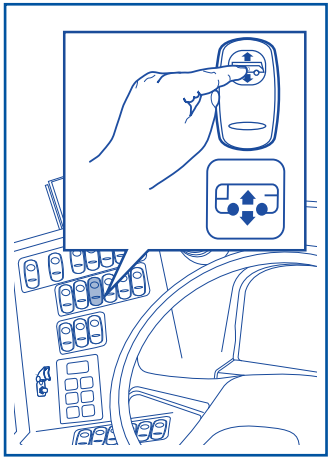
Enables adjustment of body leveling. The warning lamp on the button lights up as long as the kneeling-lifting operation is being performed. Press upper side of KNEELING-LIFTING button located on the left control panel to increase the body height.

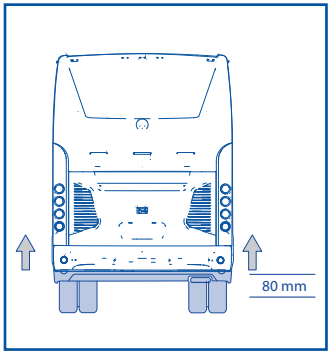
Lifting function is restricted to 12.5 mph (20 km/h).

The vehicle will automatically return to normal driving conditions when the vehicle speed exceeds this speed ratings.

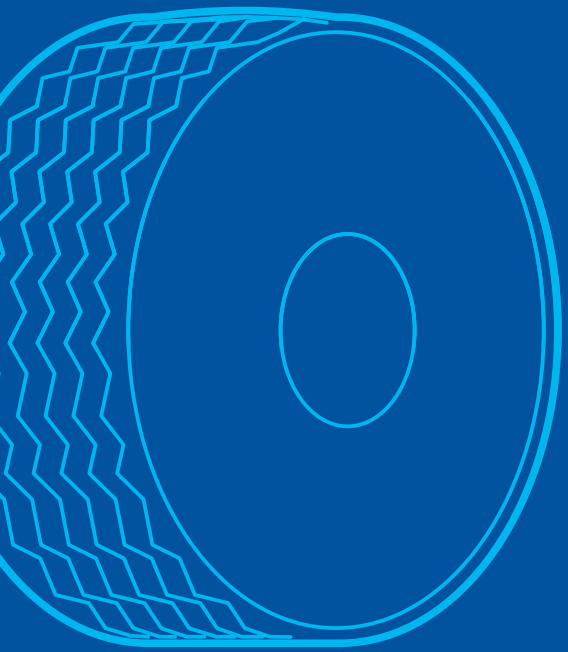
INFORMATION

Body height can be increased by maximum 80 mm/3,14 inch.





THIS PAGE INTENTIONALLY LEFT BLANK



10 TIRES

10.1 Tires
10.2 Tire Pressure
10.3 Checking Tire Pressure
10.4 Snow Tires
10.5 Snow Chains
10.6 Changing Tires
10.7 Shifting Tires

10.1 Tires

Tire specifications are coded with a letter system AAA/BB/C/D.

AAA: Tire width in millimeters.
BB: Tire aspect ratio in percent.
C: Tire type.
D: Rim dimension in inches.

Tire code of the vehicle is:
295/80-R 22.5'

Thus, 295 millimeter width, 80% aspect ratio, radial type and rims of 22.5 inches tires are used.

WARNING

- Exceeding tire load capacity or the maximum speed specified for the vehicle may cause tire damage.
- In such a case control of the vehicle would be reduced or completely lost.
- Check dimensions, type, capacity and speed values of tires specified for the vehicle.

Tire Specifications

TPC Spec (Tire Performance Criteria Specification) for your vehicle is E13 0010833.

DOT (Department of Transportation) ensures that tire complies with U.S. department of Transportation motor vehicle safety standards. DOT code for your vehicle is PA87 AA2W.

TIN (Tire Identification Number) indicates plant code, tire size and manufacture date of the tire. Tire Identification Number for your vehicle is 562742.

Tire Ply Material: Indicates type cord and number of plies in the sidewall and under the tread. Tire ply material code for your vehicle is LR H.

Maximum Cold Inflation Cold Limit: 125 psi

WARNING

Never use tires which do not have TPC spec number.

Front

Single Tire Maximum Load indicates maximum pressure for maximum load capacity of a single tire. Single Tire Maximum Load for your vehicle is 3550 kg (7830 lbs) at 850 kPa (125 psi) cold.

Rear

Dual Tire Maximum Load indicates maximum pressure for maximum load capacity of a tire in a dual configuration. Dual Tire Maximum Load for your vehicle is 3150 kg (6940 lbs) at 850 kPa (125 psi) cold.

INFORMATION

According to FMCSA 393.75 standard;
Any tire on the front wheels of a bus shall have a tread groove pattern depth of at least 4/32 of an inch when measured at any point on a major tread groove. The measurements shall not be made where tie bars, humps, or fillets located.

10.2 Tire Pressure

Tire pressure directly affects the road handling, so it is of vital importance to apply correct tire pressure.

Specified (cold) tire pressure is 125 psi (850 kPa).

WARNING

Tire pressure increases while driving. Check tire pressure when tires are cold.

SAVE THE ENVIRONMENT

Proper tire pressure reduces the fuel consumption and exhaust emissions.

10.3 Checking Tire Pressure

Check the tire pressures before prolonged driving.

Check the tire pressures once a week when they are cold.

Always check the tire pressures with a pressure gauge. Appearance of the tire can be misleading.

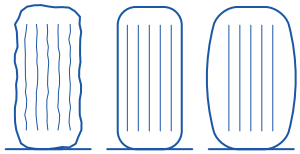
The wrong tire pressure will have an effect on safety.

WARNING

Pressures of tires on the same axle must be equal to maintain the brake stability. Having different pressure values may cause inaccurate and instable braking power.

VISUAL INSPECTION

Check the tires visually and ensure that they are in good conditions.



WARNING

- Extremely high tire pressure increases wear of tires, braking distance and reduces road handling.
- Tire pressure rises after prolonged driving especially in hot conditions. Do not deflate the tires when they are hot. Pressure adjusted in hot conditions might be insufficient in cold conditions.
- Objects such as nails, gravel etc. inside the tire treads may cause continuous deflation of tire pressure. Check the tires regularly.

WARNING

- Extremely Low Tire Pressure causes tire overheating, increases fuel consumption and reduces road handling.
- Overloaded tires with extremely low pressure have a high risk of inflation.
- Extremely low tire pressure can deteriorate the tire condition and could cause the tire to release from the rim fixation.

10.4 Snow Tires

It is suggested to use snow tires to provide better traction on snow and ice.

10.5 Snow Chains

When the road conditions demand it, this increase safety and handling of the vehicle.
Fit snow chains to tires as tight as possible. When using snow chains, avoid driving in hilly terrains.

WARNING
Snow chains may adversely affect control of the vehicle. Avoid sudden acceleration and deceleration when snow chains are used.

Check snow chain tensions regularly after driving. Readjust tightness if necessary.

WARNING
Use of snow chains must comply with prevailing national regulations.

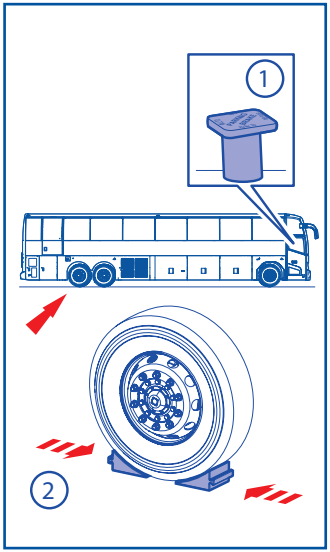
WARNING
- Read the mounting instructions of the chain manufacturer. Ensure that snow chains are fitted correctly. Do not use the vehicle with snow chains at high speeds.
- Fit snow chains to snow tires if necessary.
- Remove rim covers before fitting snow chains. Chains may cause rim cover damage.

10.6 Changing Tires

Park the vehicle appropriately and take all necessary actions before changing a wheel.

Vehicle jack, wheel chock and auxiliary equipments required for tire replacement are provided inside the emergency equipment compartment.

WARNING
- Check that vehicle is immobilized before replacing tires.
- Use gloves during removal or installation of wheels to prevent injury to your hands.

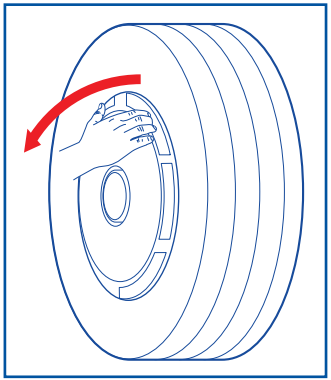


Apply parking brake and secure the vehicle with wheel chocks by positioning them under the wheels that are not to be changed.

10.6 Changing Tires

Remove the rim covers

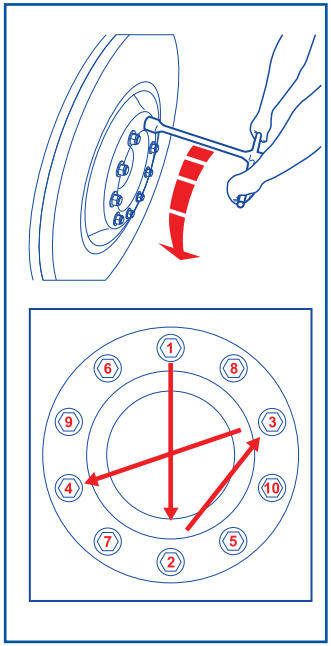
First ensure the vehicle is secure and then remove the rim cover of the wheel to be changed.



Hold the safety spring behind the hub cap and pull it outwards. Remove the hub cap.

Loosen the wheel nuts

Loosen all the wheel nuts with a lug wrench in a crosswise pattern.

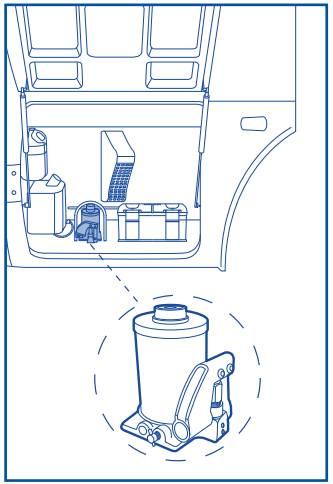


INFORMATION

Lug wrench is located inside the tool box in the emergency equipment compartment.

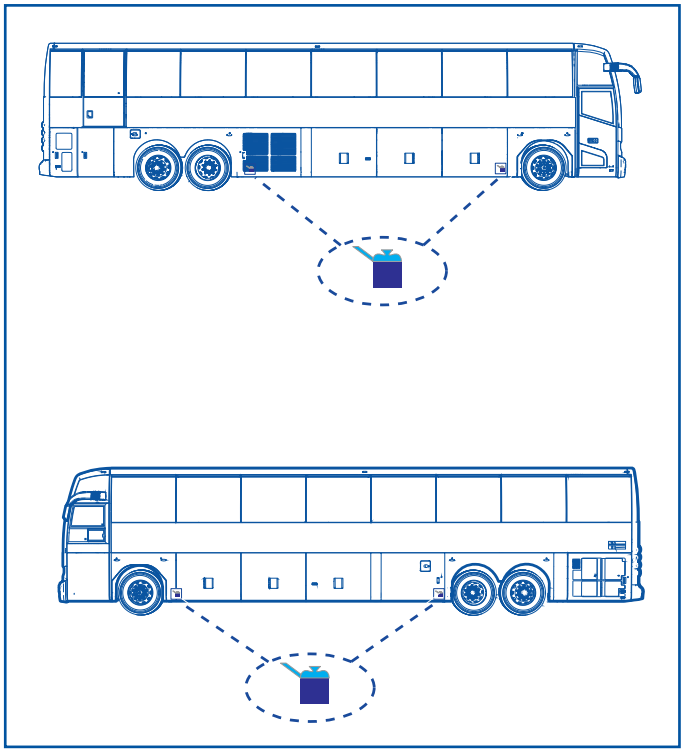
Use of jack

Rotate the screw anti-clockwise and push the jack piston downwards to release the jack.



10.6 Changing Tires

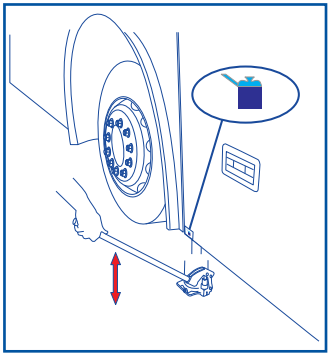
Jacking up the vehicle



WARNING

- Never jack up the vehicle before checking that the jack screw is tightened well. Otherwise, this may cause severe injuries.
- After removing the jack, rotate the screw clockwise to tighten by using jack lever.

Always jack up the vehicle at jack up points indicated with markings.



Jack up the vehicle until the wheel to be changed rises to an unconstrained position.

WARNING

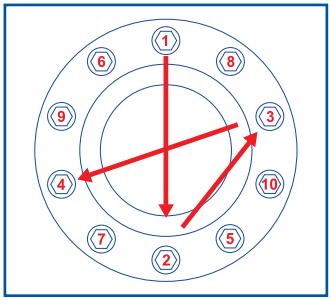
- Applying the jack on points other than specified as jack up points may damage the vehicle body.
- Ensure that maintenance of the jack is carried out annually and always comply with its user's manual.
- Check that all the passengers are evacuated before the vehicle is jacked up.

WARNING

Never remove the wheel nuts before the vehicle is jacked up.

10.6 Changing Tires

Remove the wheel nuts.



Remove the wheel nuts in a crosswise pattern using a socket wrench and take off the wheel. Take care not to damage the wheel stud threads.

Fit the new tire and tighten all the wheel nuts gently in crosswise sequence. Then retighten the wheel nuts in order shown in the illustration according to appropriate torque value.

WARNING

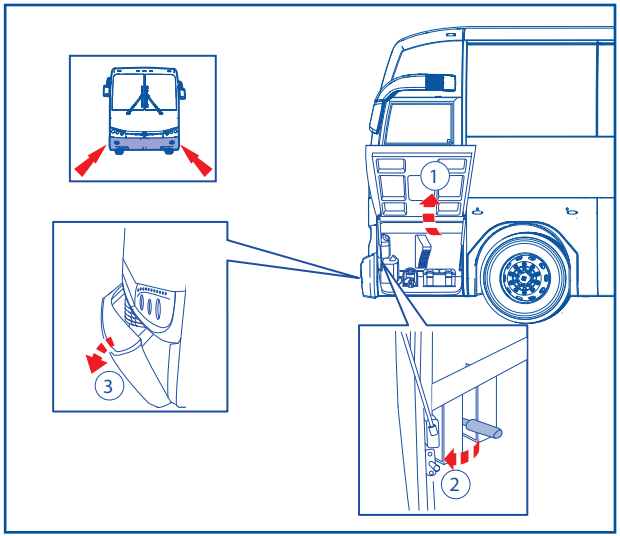
Check the wheel nuts regularly to ensure that they are correctly seated. Retighten the nuts if necessary. It is essential to retighten the wheel nuts of a changed wheel after 50 km / 31 miles.

INFORMATION

Tightening torque for the wheel nuts : 600 ± 50 Nm.

Access to spare tire

1. Open the front bumper to access the spare tire.
2. Front bumper opening lever is located in emergency equipment compartment. Pull the lever toward you to unlock the bumper.
3. Pull the bumper in the direction of the arrow to open.



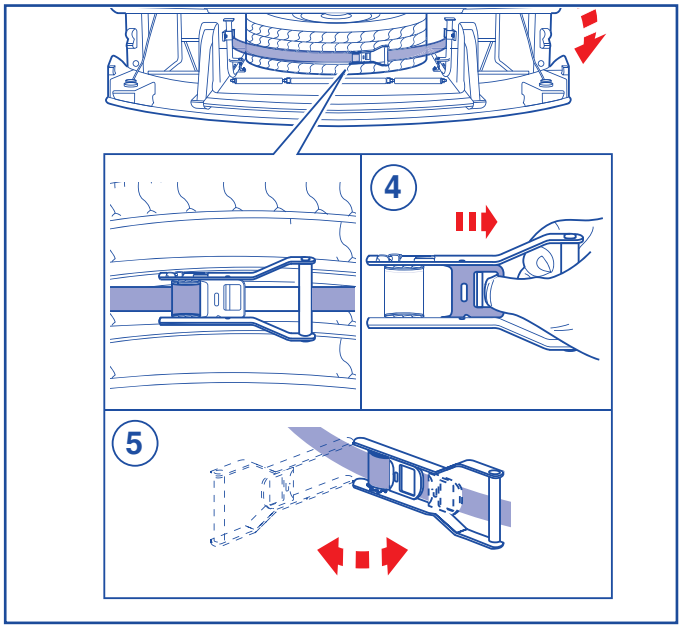
10.6 Changing Tires

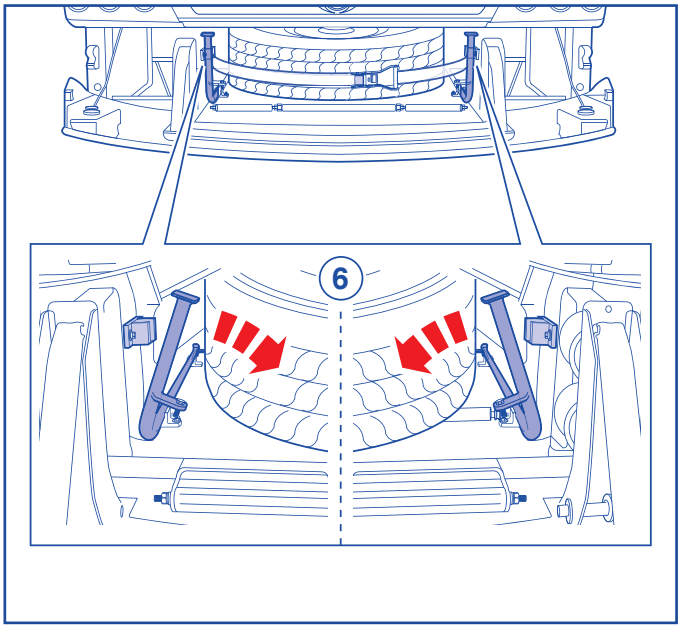
Removing spare tire

4. Spare tire belt has a locking mechanism. Hold the latch and pull in the direction of the arrow, as shown in the figure, to release the locking mechanism.

5. Moving the handle to the left and right several times loosens the belt.

6. Auxiliary parts (two pipes, a rod, two screws) are located behind front bumper to land spare tire easily. The two pipes of the landing mechanism are located one to the left and one to the right of the spare tire. To release, hold the pipe and pull in the direction of the arrow.

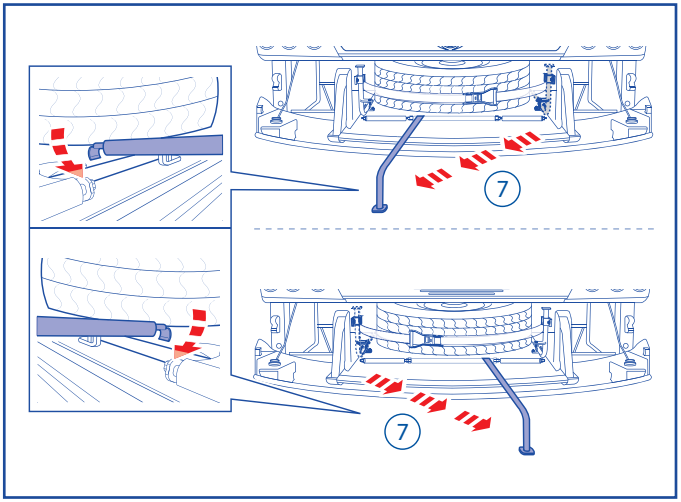




10.6 Changing Tires

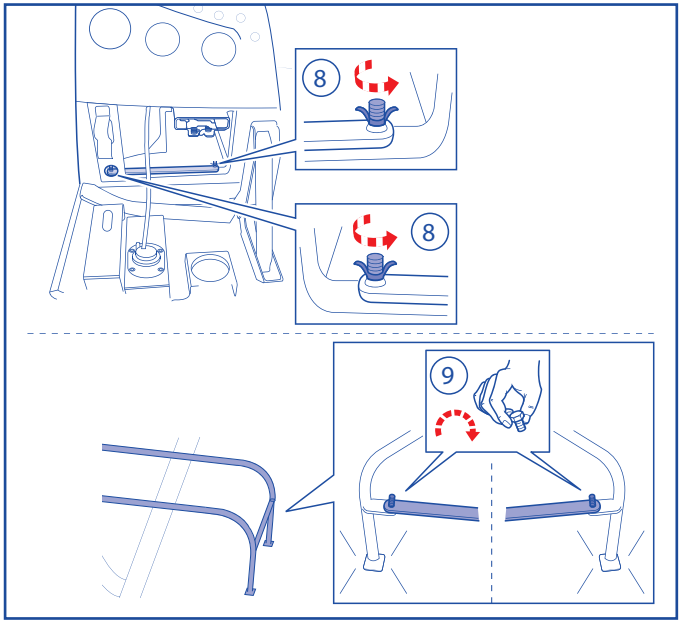
Removing spare tire

7. The pipe at the right side of the spare tire must be hooked at the left side of the tire. Pipe at the left side of the spare tire must be hooked at the right side of the tire.



8. Connection rod is located at the left side of the front bumper and mounted to the floor with two screws which need to be removed.

9. First, connect one of the pipes to the auxiliary rod with a screw and then connect the other pipe to the rod with another screw.

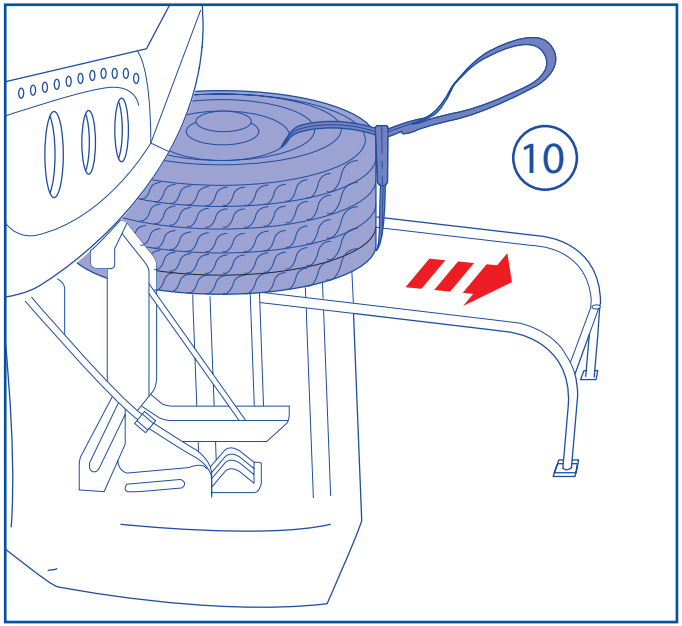


10.6 Changing Tires

Removing spare tire

10. Landing mechanism is ready to use. Hold the belt and pull in the direction of the arrow.

WARNING
Always fit new tires on the front of the vehicle.



10.7 Shifting Tires

Tires may wear down after a certain driving period depending on the location and the load strain of the tire.

WARNING
Never use snow tires and normal tires together on your vehicle. Tires with different specifications and properties reduce road handling.

THIS PAGE INTENTIONALLY LEFT BLANK



11 BRAKES

11.1 ABS
11.2 Parking Brake
11.3 Retarder
11.4 ASR
11.5 Engine Brake

11. Brakes

Your vehicle is equipped with the following systems for safer driving:

- ABS
- ASR
- Retarder (Optional)
- Engine Brake

Auxiliary brake systems are intended to increase the braking power.

Instant maneuvers at high speeds may cause loss of control of the vehicle. In such a case auxiliary brake systems cannot prevent loss of control of the vehicle even if they are functioning properly.

For better braking power avoid instant maneuvers on wet and slippery roads. Braking distance is longer than regular road conditions.

INFORMATION

When auxiliary brake systems malfunctions the service brake functioning prolongs.

WARNING

- Never shift into neutral while driving. The auxiliary brake system does not function when gear is in "NEUTRAL" position.
- Fitting tires of different sizes and features prevents auxiliary brake systems from functioning properly.
- Sizes and features of all tires must be the same.

WARNING

- Clean and observe disk brake pads properly.
- Do not use any type of surfactant.
- Treatment on the brake system can be done by only authorized services.

11.1 ABS

ABS (Anti-locking Braking System) prevents the wheels from locking while braking.

When the engine is started, ABS warning lamp switches on. It switches off after five seconds.

WARNING

When the ABS is activated the brake pedal starts vibrating. In such a case never move your foot off the brake pedal and never pump the brake pedal.

DOCUMENT REFERENCE

See also service manual delivered with the vehicle for road assistance phone numbers.

ABS warning lamp does not switch off in case of ABS malfunction during travel. In such a case consult authorized TEMSA Service.

WARNING

- Braking function is adversely affected in case of any problem with ABS system. Park the vehicle in an appropriate place if ABS warning lamp lights up.
- Service brake and other auxiliary brakes continue functioning even if ABS does not function the result is the wheels may get locked and braking distance may increase.

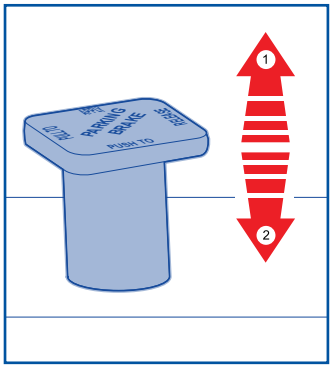
CONSULT AUTHORIZED SERVICE

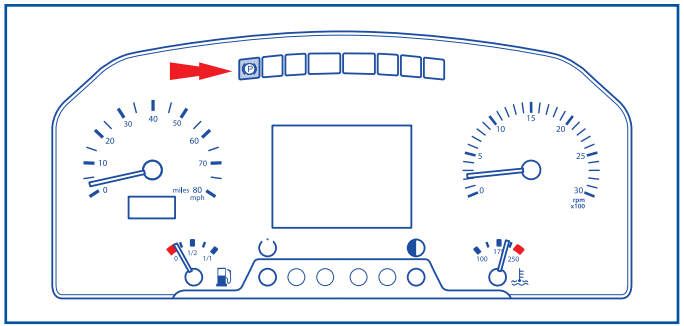
Consult authorized TEMSA Service before continuing to drive.

11.2 Parking Brake

Parking brake prevents the vehicle from moving after it has stopped.

1 Pull the lever upwards to activate the parking brake.
2 Push the lever downwards to deactivate the parking brake.





"PARKING BRAKE" warning lamp located on warning panel lights up when the parking brake is activated. It switches off when the parking brake is released.

Release the parking brake before driving and check that the "PARKING BRAKE" warning lamp is off.

WARNING
Never use the parking brake during travel except for emergencies.

WARNING
Consult authorized TEMSA Service if the "PARKING BRAKE" warning lamp does not switch off although air pressure in the system is sufficient.

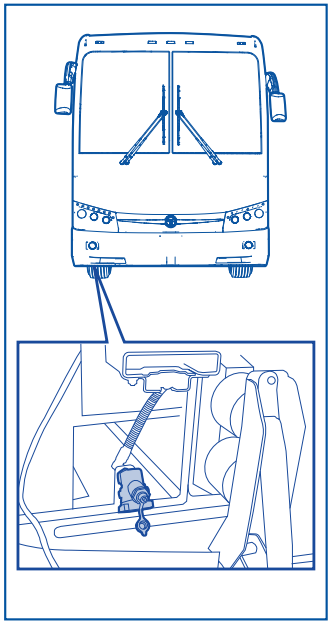
11.2 Parking Brake

Unlocking Parking Brake

Parking brake can be locked when air pressure in the system is insufficient. In such a case the "PARKING BRAKE" lamp (Ⓟ) located on the warning panel lights up.

MECHANICAL MAINTENANCE

- Supply filtered and pressurized air for the air tanks to ensure the parking brake system function again.
- Stop the vehicle in an appropriate place and evacuate the passengers before performing this operation.
- Connect the pressurized air pipe to the air tank. Continue filling pressurized air until the warning lamp switches off.



WARNING

Check the "PARKING BRAKE" warning lamp after releasing the parking brake.

CONSULT AUTHORIZED SERVICE

Consult authorized TEMSA Service if the parking brake lamp is still on.

WARNING

Vehicle may roll away if the parking brake is not locked. In such a case secure the vehicle with wheel chocks.

INFORMATION

Supplied air pressure must be 8-9 bar.

11.3 Retarder (Optional)

OPTIONAL

This feature is provided optionally. It may not be included in all models.

Using the service brake for a long duration causes overheating and wear of brake pads and tires.

Using the retarder brake system while driving increases the life span of the brake pads.

Retarder brake has five levels, the appropriate level can be applied according to the speed of the vehicle and road conditions. First level provides lowest braking power while the third level provides the highest braking power.

WARNING

Warning lamp flashes when using retarder if the coolant temperature is high. Also retarder braking power decreases in order to prevent overheating. Warning lamp stops flashing and lights continuously when coolant temperature decreases. If warning lamp keeps flashing there may be a failure in the system. Consult authorized TEMSA Service before driving.

WARNING

Except for emergencies never activate the retarder lever to the highest or lowest level abruptly.

INFORMATION

When the retarder system is activated, the retarder warning lamp located on the warning panel lights up.

11.4 ASR (Acceleration Slip Regulation)

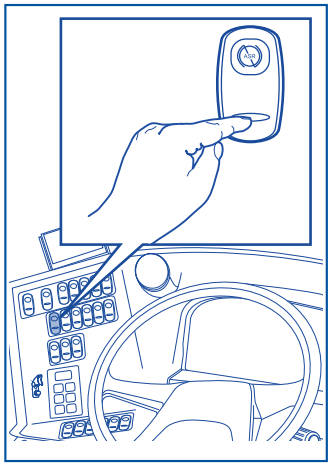
ASR system regulates the drive torque of the driven wheels depending on the current driving situation. If one of the wheels rotates faster than the others, it would be recognized by the ASR system. Rotation speed is controlled to prevent wheel slip of the wheel which rotates faster.

ASR system regulates the drive torque and the wheels are spinning independently from each other.

ASR system prevents wheel slip and provides safer driving in difficult driving conditions.

WARNING

- Deactivate ASR system while using snow chains.
- Wheels may spin and the vehicle may sway when the ASR system is deactivated.
- The ASR warning lamp may switch on during driving on slippery roads, if so, reduce speed.



Press “ASR” switch located on left control panel to deactivate ASR system.

11.5 Engine Brake

Enables auxiliary brake power by throttling the exhaust discharge.

Engine brake can be used instead of the service brake when the coach is not overloaded and when driving on mild slopes.

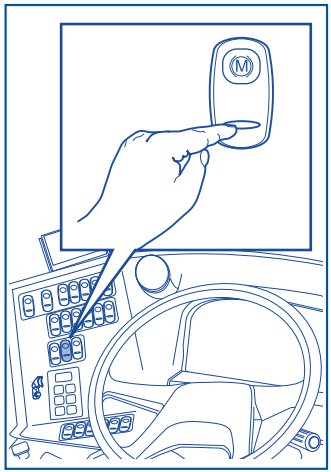
Engine brake power is insufficient to bring the vehicle to a full stop.

Press “ENGINE BRAKE” switch on the left control panel to activate the engine brake.

Engine brake is active as long as the “ENGINE BRAKE” switch is kept pressed.

INFORMATION

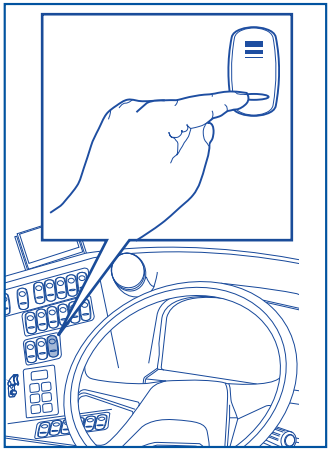
Engine brake is activated when you move your foot off the accelerator pedal.

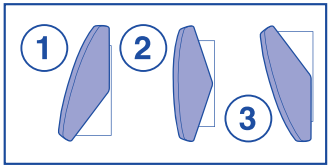


WARNING

- Do not use the engine brake to adjust the follow up distance, use service brake.
- Engine brake may be insufficient to adjust the follow up distance in time.

11.5 Engine Brake





Use the engine brake level adjustment switch to adjust the braking power. Switch has 3 levels:
1st level: High braking power.
2nd level: Medium braking power.
3rd level: Low braking power.

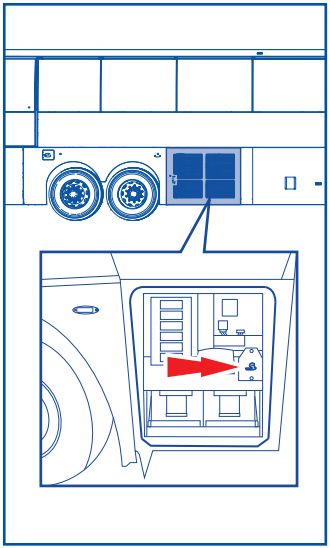


12 ELECTRICAL SYSTEMS

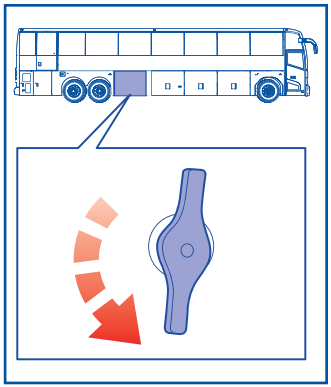
12.1 Main Battery Cut-off Switch
12.2 Battery
12.3 Jump Start
12.4 Relay Panel
12.5 Fuse Box

12.1 Main Battery Cut-off Switch

Activate the main battery cut-off switch to disconnect the electrical system from the battery if the vehicle is to remain unused for a long period of time or before repair work.



Turn the switch in the direction of the arrow to disconnect the system from the battery.

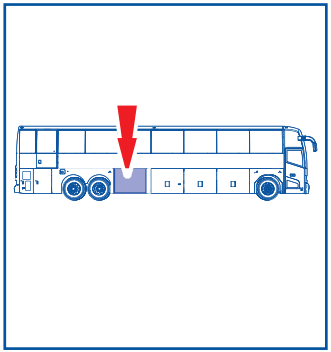


WARNING

Never activate the main battery cut-off switch while the engine, preheater, air conditioner or any electric system is running. In such a case electric or control systems and alternator may be damaged.

12.2 Battery

The Batteries are located on the right-hand side of the vehicle.



SAVE THE ENVIRONMENT

Battery disposal should be done according to the hazardous waste disposal regulations.

The following instructions will increase the service life of your battery.

- Battery main switch should be turned off if the vehicle is going to be parked for a long term.
- After turning off the contact, wait for at least 2 minutes before switching off the main switch.
- While starting the engine, do not apply contact key more that 10 (ten) seconds. Wait for at least 12 seconds before the next start (between two starts).
- All electrical accessories should be off while starting the engine.

12.3 Jump Start

If batteries are discharged or the engine cannot be started, they can be recharged by using the battery of another vehicle.

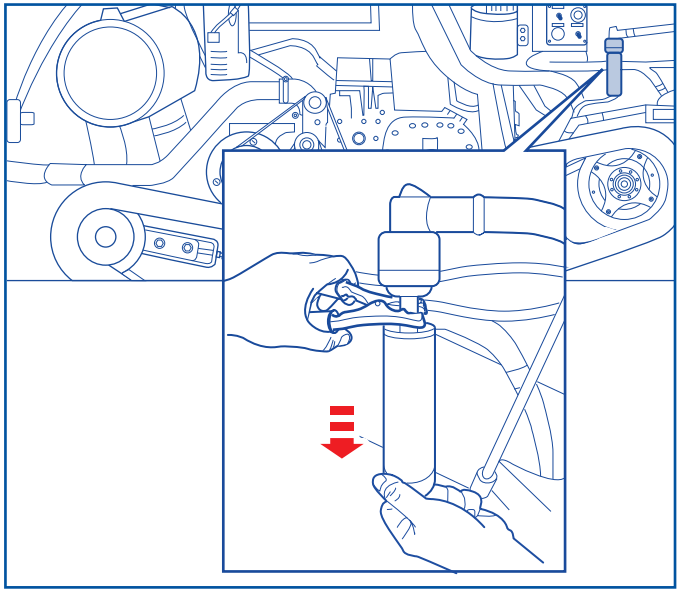
Park the vehicles close to each other without contact between them and activate the parking brakes. Check that both vehicles operate at the same operating voltage and the poles of the batteries are not corroded.

WARNING

- Stop the engine and shift into "Neutral" before performing jump start.
- Deactivate the main battery cut-off switch before connecting the jumper cables to prevent the electric or control systems being damaged.
- If vehicles operating different voltage, both vehicles can be damaged.

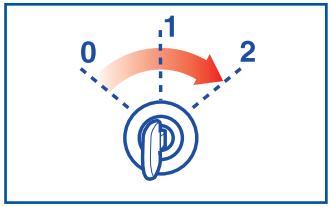
First connect the terminal clamp of the **red cable** to the jump start as shown in the illustration and connect the other clamp of the **red cable** to the positive (+) terminal of the donor battery.

Secondly connect the terminal clamp of the **black cable** to the jump start negative (-) terminal of the donor battery and connect the other clamp of the **black cable** to the chassis of your vehicle.



WARNING

Avoid short circuits caused by polarity reversal and by contact of worn jumper cables.



Push the upper side of ACC button to activate the electrical system. Start the engine of the donor vehicle. Push the start button.

Stop the donor vehicle when the receiver vehicle starts operating properly.

Remove the terminal clamps in reverse order.

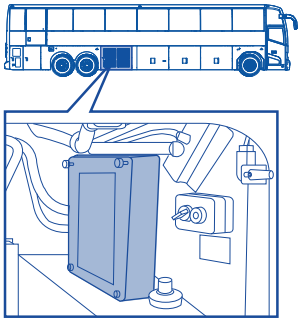
12.3 Jump Start

WARNING

- Highly explosive hydrogen gas is produced while charging batteries. Check that batteries are charged in a well ventilated area.
- Keep fire, sparks, naked flames and cigarette away from the battery.
- Connect the jumper cables to the battery terminals only. Never connect them to the starter or frame.
- It may not be a simple battery fault if the engine does not run. Stop the engine of the donor vehicle. Otherwise donor battery may discharge.

12.4 Relay Panel

Relay panel is located in AdBlue Tank maintenance Compartment. Replace the damaged fuse with a spare one if a malfunction occurs.



CONSULT AUTHORIZED SERVICE

Consult authorized TEMSA Service for relay malfunctions.

WARNING

Always check the ampere value on the spare fuse and use a fuse that complies with the amperes written on the fuse label.

INFORMATION

An illumination lamp is located at switch panel compartment. When the compartment hatch is opened, illumination lamp lights up automatically and lights off when the hatch is closed. When the ignition is off, illumination lamp lights up for an hour if the hatch is kept open. Close the hatch and then open or switch the ignition to “ON” to illuminate the switch panel again.

12.5 Fuse Box

Fuse box is located at battery maintenance compartment.

After recognizing any malfunction related to the fuses, determine the location of the corresponding fuse by checking the fuse charts provided in the wiring diagram documentation.

Before replacing fuses make sure the corresponding electric systems are switched off.

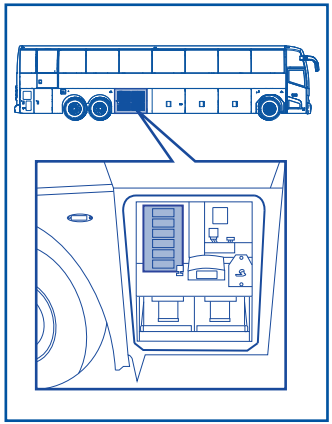
INFORMATION

Remove the screws on cover to access to the fuse box.

WARNING

- Take the ampere values into consideration before replacing fuses.
- Both faulty and replaced spare fuses must have the same ampere values.

12.6 ECM



WARNING

The systems may not function if faulty fuses are replaced with those of different ampere values.

CONSULT AUTHORIZED SERVICE

Consult authorized TEMSA Service for spare fuse ordering.

INFORMATION

Fuse panels vary depending on the customer requirements. Therefore, fuse panels supplied on the vehicle may differ from those indicated in User's Manual.

ECM is a processor which checks and controls different information and related systems such as fuel injection timing, determining the amount of fuel required and the idle speed.

The ECM system is located on the engine.

The ECM system helps to provide an optimum regulation of momentary fuel injection. It controls amount and timing according to the engine operating conditions and provides optimum level of fuel injection, sound and exhaust emissions.

The ECM system controls data and determines the related system malfunctions.

WARNING

The "ECM" warning lamp switches on together with "STOP" warning lamp. The warning lamp indicates a malfunction recognized by the ECM system. In such a case stop the vehicle immediately and consult authorized TEMSA Service.

12.6 ECM

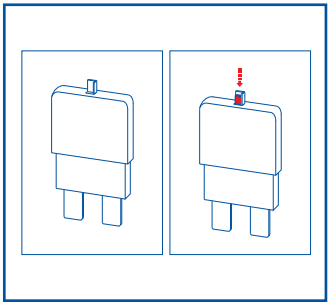
WARNING

- Never make a reverse connection of the terminals when replacing batteries or during jump starting otherwise the ECM system will be damaged. First connect the positive (+) and then the negative (-) battery terminals. Reverse connection of the terminals may damage the electronic system completely.
- Consult authorized TEMSA Service for requirements of supply. The ECM system may be entirely damaged when necessary actions are not taken.

12.7 Circuit Braker Reset

Every electrical accessory in your vehicle has a fuse to protect it. When a fuse blows, it breaks the connection, and you have to reset it.

To do this, you need to find the tripped breaker.It will have a small button in the center, and the button will be popped out. The button on a breaker that is not tripped will be almost flush with the surface. A tripped button will stick out about a quarter of an inch.



Push the button in until it clicks into place.

THIS PAGE INTENTIONALLY LEFT BLANK



13 MAINTENANCE

13.1 Checking Engine Oil Level
13.2 Checking Condition of Engine Oil
13.3 Checking Condition of Transmission Oil
13.4 Air Filter Maintenance
13.5 Replacing Air Filter
13.6 Fuel Filter Maintenance
13.7 Expansion Tank Maintenance
13.8 Addition of Distilled Water
13.9 Usage of Antifreeze
13.10 Radiator Maintenance
13.11 Air Conditioner Maintenance
13.12 Cleaning the Filters
13.13 Checking Drive Belt Tension
13.14 Cleaning Vehicle Exterior
13.15 Cleaning Vehicle Interior
13.16 Lavatory Waste Tank Maintenance
13.17 Corrosion Protection

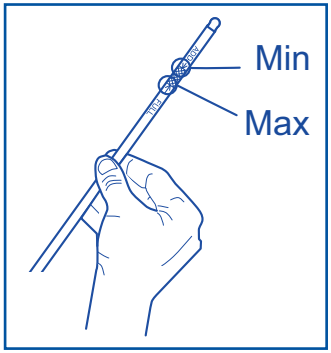
13.1 Checking Engine Oil Level

DO IT YOURSELF
Check the engine oil level each time when refueling.

Check the engine oil level when the engine is stopped and warm, wait till the oil flows back into the sump. Park the vehicle on level ground to get an accurate oil level reading.

Pull out the dipstick and wipe it with a clean piece of cloth. Insert the dipstick to its socket and pull it out again. Check the oil level with the markings.

SAVE THE ENVIRONMENT
- Disposal of engine oil should be done according to the hazardous waste disposal regulations.
- Take necessary precaution to avoid oil overflow while adding engine oil to the system.



INFORMATION
Oil level must be between two markings on the dipstick:
ADD : Minimum oil level allowed
FULL: Maximum oil level allowed

DOCUMENT REFERENCE
See also service manual delivered with the vehicle for oil change intervals.

WARNING
If the engine oil level is not between the indicator markings “ADD” and “FULL”, the amount of engine oil is insufficient or excessive.

HOT SURFACES
Engine oil dipstick is located in the same compartment as heating parts. Take care not to touch hot parts while checking oil level.

CONSULT AUTHORIZED SERVICE
In this case, do not continue to drive and consult authorized TEMSA service.

13.2 Checking Condition of Engine Oil

Viscosity of Engine Oil

Check the viscosity of the oil on the oil dipstick. The oil on the dipstick must not be dry like tar or fluid like water.

WARNING
If the condition of the oil is too dry or too fluid it should be replaced.

CONSULT AUTHORIZED SERVICE
In this case, do not continue to drive and consult authorized TEMSA service.

Dark Engine Oil

One task of the engine oil is to clean. Oil contains additive products like solvents and detergents. Engine oil prevents fragments making contact with metal surfaces and protects the engine. Engine oil gets dirty as long as the engine runs.

WARNING
If oil colour is dark or black, consult authorized TEMSA service immediately.

WARNING
If any drop of oil or blue fume is observed from the outlet of exhaust system call TEMSA Service immediately.

Deterioration of Engine Oil

Manual or visual inspection of the engine oil might be misleading to decide whether it is deteriorated or not. Particles bigger than 2 mm in the oil indicate that the oil has deteriorated. For exact results, the oil must be subject to physical and chemical analysis at the laboratory.

WARNING
TEMSA
Oil replacement must always be performed by authorized TEMSA Service, if the engine oil loses its properties or it is depleted.

13.3 Checking Condition of Transmission Oil

DO IT YOURSELF
Regularly check the automatic transmission oil.

Check the automatic transmission oil by using transmission control panel.

Electric Oil Level Sensor (OLS)

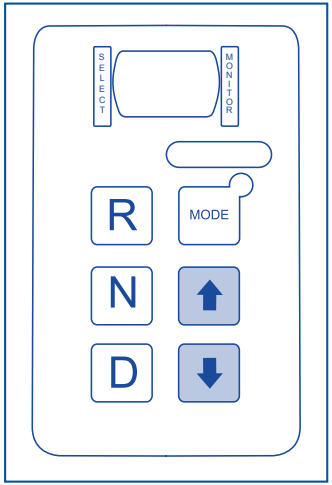
Oil level can be measured only if;

- Vehicle is on a surface level,
- Engine at idle,
- Neutral gear selected
- Zero output speed
- Transmission sump oil must be within an operating temperature band: 62ºC - 104ºC (140ºF - 220ºF)

once the first four conditions are met, and a 2 minute “waiting” period has passed (to facilitate consistent oil drain back), oil level measurement will be displayed.

13.3 Checking Condition of Transmission Oil

Press the UPSHIFT and DOWNSHIFT buttons to enter OLS readout mode (after meeting the conditions noted above).



If the five conditions noted above are present, the display will immediately enter the reading mode.

If the “waiting” period has not elapsed, a flashing numeral counting down from 8 to 1 is displayed until the waiting period is complete.

If any condition preventing the fluid level to be checked is observed,a fault message is displayed.

CONSULT AUTHORIZED SERVICE

TEMSA

In such a case, do not continue to drive and consult authorized TEMSA service.

Display Messages;

Message	Meaning
oL - oK	Oil Level is OK
oL-Lo-1	Oil Level is LOW 1 quart (approx. 0,5 lt)
oL-HI-2	Oil Level is HIGH 2 quart (approx. 1 Lt.)

Fault Messages;

Message	Meaning
oL - OX	Setting time too short
oL - EL	Engine rpm too low
oL - EH	Engine rpm too high
oL - SN	N (Neutral) must be selected
oL - TL	Sump fluid temperature too low
oL - TH	Sump fluid temperature too high
oL - SH	Output shaft rotation
oL - FL	Sensor failure

13.4 Air Filter Maintenance

DO IT YOURSELF

Regularly check the air filter.

WARNING

Ensure that engine is stopped before checking the air filter.

DOCUMENT REFERENCE

See also service manual for air filter maintenance.

13.4 Air Filter Maintenance

If the air filter is clogged, it is recommended to change the filter before its periodic maintenance interval.

WARNING

- Ensure that the engine is stopped and the ignition key is removed or in "OFF" position before removal of the air filter for maintenance and cleaning.
- Never start the engine until the air filter is reinstalled.

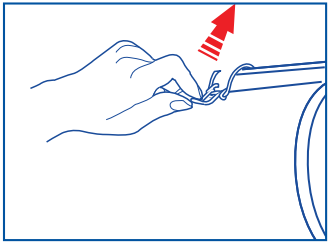
Reset the dust indicator after air filter maintenance work. Check the indicator by running the engine.

WARNING

Check that filter and its elements are installed correctly after maintenance work.

Push the clips forward to release each of them and remove the air filter.

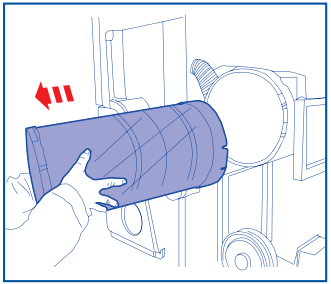
Pull out the external filter cap.



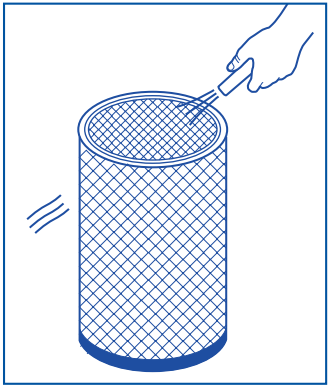
VISUAL INSPECTION

Replace the air filter if too much soot or oil has accumulated on it.

13.5 Replacing Air Filter



Pull the filter gently towards you and remove.



Apply pressurized air to the inner parts of the filter.

CONSULT AUTHORIZED SERVICE

Consult authorized TEMSA service to replace air filter.

WARNING

Always use genuine TEMSA spare parts and accessories. Use of none genuine spare parts will adversely effect the performance and jeopardize the warranty of your vehicle.

13.6 Fuel Filter Maintenance

Performance of the vehicle and fuel consumption depend on the cleanliness of the fuel filter. Clogged fuel filter reduces the performance of the vehicle and increases fuel consumption.

DO IT YOURSELF

Check the fuel consumption regularly. The reason of sudden increase in the fuel consumption may be a clogged fuel filter.

CONSULT AUTHORIZED SERVICE

TEMSA

In such a case consult authorized TEMSA service before periodical replacement interval.

WARNING

- No maintenance work is applied for the fuel filter. Fuel filters must be replaced by authorized TEMSA Service at required intervals or if damaged. This information can be obtained from TEMSA Service.
- Always use the type of fuel recommended by authorized TEMSA Service.

DOCUMENT REFERENCE

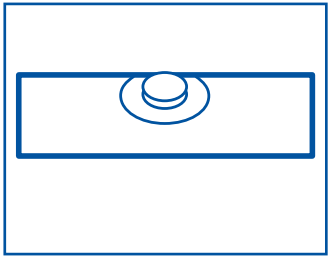
See also service manual for fuel filter replacement.

13.7 Expansion Tank Maintenance

Ensure that engine is stopped before checking coolant level. Park the vehicle on level ground before checking coolant level.

DO IT YOURSELF

Regularly check the coolant level.



13.8 Addition of Distilled Water

Add distilled water to the tank if coolant level indicates “MINIMUM” on the expansion tank (see page 129).

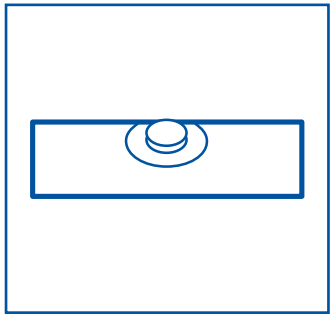


WARNING

- Never completely fill the expansion tank. Add fluid until low cooling water level warning lamp switches off.
- Antifreeze ratio changes when distilled water is added to the tank. Antifreeze addition or replacement of antifreeze must only be performed by authorized TEMSA service. Consult authorized TEMSA service before continuing to drive in order to avoid cooling system damage.

Radiator filling instructions:

Step	Definition
1	All manual valves are opened.
2	Reserve tank is filled up to full level.
3	Engine is started and works at idle speed.
4	Coolant is added slowly by observing reduction.
5	Engine works app. 10 mins.
6	Electrical valves and water pump is opened.
7	Coolant is added as it reduces within the level observed.
8	Engine works for 10 to 15 mins.
9	Then, engine works at full throttle.
10	Add necessary coolant.
11	Wait until thermostat opens.
12	Add coolant if needed.
13	Finally, vehicle is sent to test shop and rework dept.
14	In this period if coolant is observed to be reduced, then added.



13.9 Usage of Antifreeze

WARNING

- Coolant includes ethylene glycol. Avoid contact with ethylene glycol and never mix it with other substances.
- Never add antifreeze to the system before periodical maintenance interval.

INFORMATION

Consult authorized TEMSA Service for replacement of the coolant.

DOCUMENT REFERENCE

See also service manual for replacement of the coolant.

SAVE THE ENVIRONMENT

- Disposal of antifreeze should be done according to the hazardous waste disposal regulations.
- Take necessary precaution to avoid antifreeze overflow while adding antifreeze to the system.

13.10 Radiator Maintenance

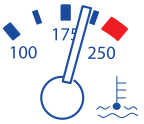
Contaminants on the radiator fins obstruct the function of the cooling cycle process.

DOCUMENT REFERENCE

See also service manual for radiator maintenance.

VISUAL INSPECTION

Check temperature indicator regularly during driving.



WARNING

All running parts located in the same compartment as the radiator, heat up.

HOT SURFACES

Contact with hot parts may cause severe injuries.

SAFETY GLOVES

Always wear protective gloves during maintenance of hot parts.

WARNING

Vapor inside the radiator may cause severe burns. Never open or loosen radiator cap when the fluid is hot.

13.11 Air Conditioner Maintenance

Always use a soft brush to clean the radiator. Never apply pressurized air or water directly on the radiator.

ROTATING PARTS

Always perform radiator maintenance when the engine is stopped. Check that all parts are stationary before starting to clean the radiator.

Run the air conditioner regularly for at least half an hour to increase the service life of the gasket.

INFORMATION

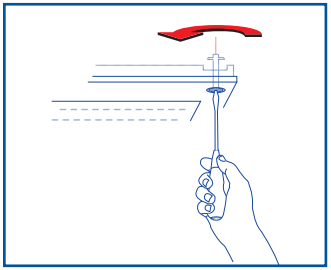
Do not deactivate air conditioner immediately after long use. Run the air conditioner in the fan position to allow the humidity to escape from the system.

13.12 Cleaning the Filters

Check that all filters are cleaned regularly to improve performance of heating and cooling elements. Clogged filters will reduce the performance of the air conditioning system.

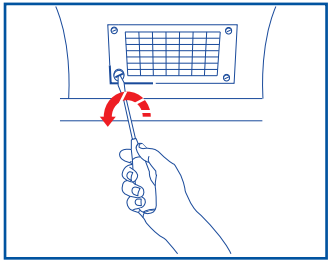
WARNING

Do not run the air conditioner during filter cleaning.



Remove the screws located on the vent to clean the air conditioner filters. Use water to clean the pores that are clogged.

Remove the vents to clean them. Use warm water and soap to clean air conditioner vents. Dry in well ventilated area. Clean vents regularly.



SAVE THE ENVIRONMENT

Vehicles in good conditions releases less amount of particles to the environment. The periodic maintenance achieves an improvement of the vehicle conditions and protects the environment.

13.13 Checking the Drive Belt Tension

Check drive belts regularly before driving.

DOCUMENT REFERENCE

See also service manual for drive belt replacement.

WARNING

Belts and hoops rotate as long as the engine runs. Check the belts when the engine is stopped.

VISUAL INSPECTION

- Open the engine maintenance lid and check the physical condition of drive belts.
- Drive belts that are damaged must be replaced immediately.

CONSULT AUTHORIZED SERVICE

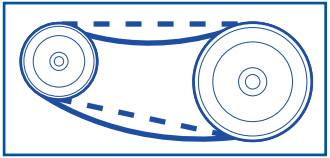
In this case do not drive and consult authorized TEMSA Service.

WARNING

Damaged belts may cause accidents and severe injuries.

INFORMATION

- Insufficient tension may cause engine overheating or charging problems of the battery.
- Excessive tension may damage the belt itself.



13.14 Cleaning Vehicle Exterior

Wash the vehicle frequently to protect painted and protective surfaces.

WARNING

It is recommended to clean vehicle manually and not use automatic cleaning machines.

INFORMATION

Wash exterior of the vehicle as well as interior of the fenders with plenty of water and cleaning agents recommended by authorized TEMSA service.

WARNING

- Never use hard brushes or spatula to clean resin, bird droppings and other acidic substances on the vehicle.
- Check that the engine is stopped and allow the transmission system to cool down before cleaning the vehicle. Never wash the vehicle with the engine running.
- Cleaning of engine compartment and isolation materials of engine compartment must only be performed by authorized TEMSA service.
- Never use solvents that react with plastic substances for cleaning plastic surfaces.
- Cleaning of headlamps must only be performed by authorized TEMSA service.

13.15 Cleaning Vehicle Interior

INFORMATION

Clean vehicle interior with cleaning agents recommended by authorized TEMSA service.

INFORMATION

Use a cleaning agent recommended by authorized TEMSA Service for soiling that is hard to remove.

WARNING

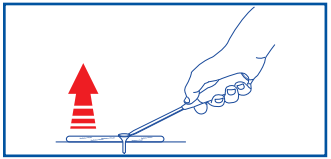
- Never use corrosive substances or solvents such as paint thinner for cleaning non-metal surfaces.
- Cleaning of electronic parts must only be performed by authorized TEMSA Service.
- Never use corrosive substances or solvents such as paint thinner or detergent for cleaning electronic instruments panel and control switches.
- Upholstery, cloth and floor mats can be cleaned by brushing and using vacuum cleaner or with soapy warm water depending on the level of contamination.

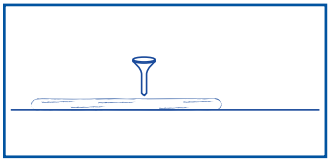
WARNING

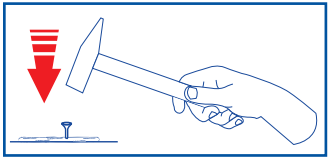
- Use only water and soap to clean seat belts. Never use chemicals to clean seat belts.
- Never stick any materials on seat belts. Avoid cutting, painting or bending the seat belt buckles.

Mats

Spiked mats are provided with the vehicle. Mats can easily be removed and cleaned. Removal and mounting of the mats is shown in the figure.







WARNING

Always keep the spikes of the mat. Consult with TEMSA Service to order.

13.16 Lavatory Waste Tank Maintenance

Discharge and rinse lavatory waste tank regularly.
Late discharging or rinsing may cause overflow. (See also page 85)

WARNING
Do not use toilet unit if lavatory waste tank full.

CONSULT AUTHORIZED SERVICE
In such a case do not drive and consult authorized TEMSA Service.

13.17 Corrosion Protection

Corrosion can form on the exterior surface of the vehicle, on connection elements and mechanical parts.

INFORMATION
Corrosion check must be conducted every 15.000 km / 9321 miles.

How to detect corrosion?

Wear and change of colour on the external surface of the metal indicate corrosion. On metal parts the colour of corrosion is brown and it is white on aluminum and zinc parts.

INFORMATION
Regular maintenance and repairs carried out by authorized TEMSA Service reduces the corrosion risk on all surfaces of the vehicle.

Factors that cause corrosion are: Weather Conditions

Different weather conditions such as humidity, snow and mud accumulated on the surface of the vehicle must be cleaned regularly to prevent painted and preservative surfaces corroding.

External Factors

Air pollution, dust carried by the wind, gravel and dirt may damage the preservative surface of the vehicle.

Dirt, snow and other external substances remaining on the surface for a long time may damage the body surface.

Usage Conditions

Body surface may crack if the vehicle is washed in extremely hot or cold weather. Cracks may lead to corrosion.

Maintenance Preventive Corrosion Procedure:

We would like to remind you of some maintenance precautions to help protect your vehicle from aging and corrosion.

Cleaning of the Vehicle

Cleaning and maintenance of the vehicle in regular intervals as recommended by authorized TEMSA Service reduces corrosion risk and increases service life.

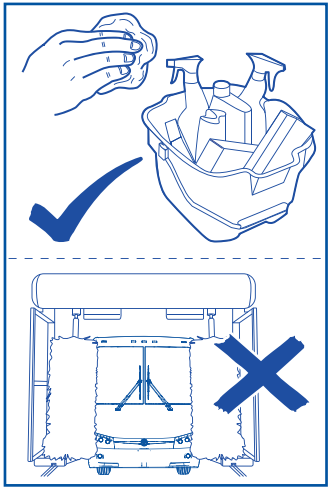
Use suitable washing agent and warm water for hand washing, max. 50 °C.

WARNING
Do not use household detergents, soaps or strong chemicals which remove wax and other protective finishes from the surface of the paint to wash your vehicle. After all sections have been washed, rinse the entire vehicle once again before drying. Do not let residues stay on the surface of the vehicle. Use only gentle washing agents approved by TEMSA.

Washing New Vehicles

WARNING

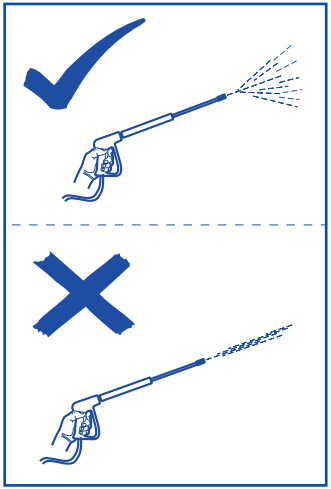
- New paintwork is not fully hardened during the first months. Therefore, instead of washing the vehicle in an automatic wash system prefer hand wash during the first 2 months.
- Always wash the vehicle starting from top to bottom.



Pressurized Washing

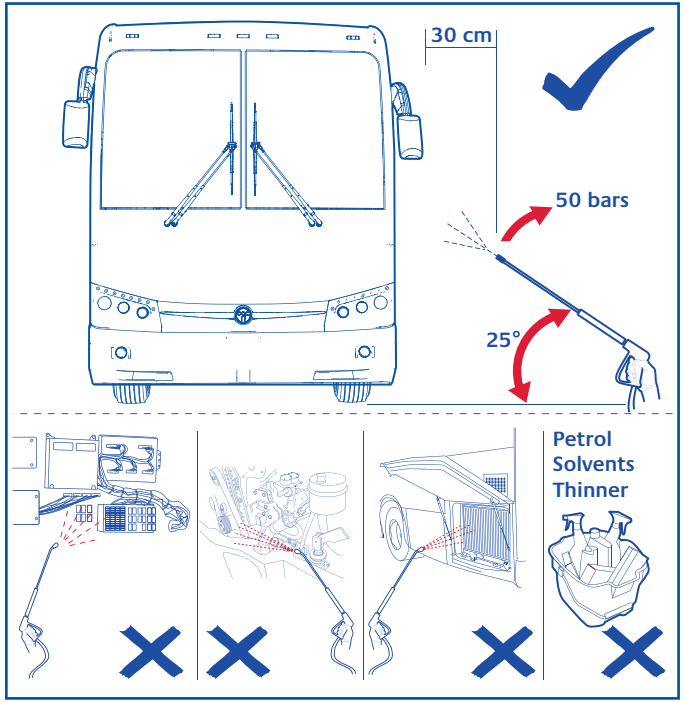
WARNING

Do not use high pressure round jet nozzles and power nozzles. Only use flat jet nozzles for pressure washing. Always keep the nozzle moving instead of pointing. The average operating pressure for pressure washing should be 50 bars.



Pressure washing can be done on vehicle older than 2 months. Running water and gentle washing agents approved by Temsa can be used for this process.

Use cold or warm water for pressure washing. Depending on the manufacturer, you can add 1 to 5 % washing agent to the water.



Pressurized Washing

WARNING

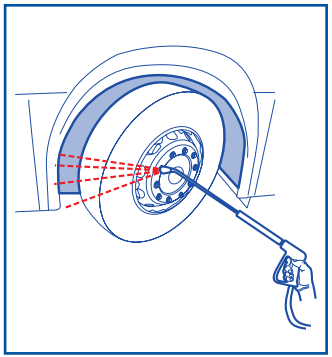
- Never use additives or cleaning agents comprising petrol, thinner or any other hydrocarbon based solvents.
- Do not point the water directly to any electrical equipment.
- Do not point the pressurized water directly in the engine compartment, air suction zones, draining holes of axle and transmission system.
- Do not point the pressurized water directly at the bearings and joints.

Underbody Maintenance

Salting icy roads during the winter helps vehicle tires to maintain traction. On the other hand, accumulation of road salt in the fenders, luggage compartments and under body zone of the vehicle causes corrosion.

Components of the vehicle such as chassis, side panels, exhaust system, brake and oil lines can be affected by the corrosion if accumulated road salt is not cleaned well.

To protect the under body components, wash and clean the road salt accumulation zones at least once a month.



Paintwork Maintenance

Repair any observed scratches and paintwork damages immediately. Uncoated surfaces cause corrosion.

Surface Protection

With a recommended bright polishing agent, apply wax sealing.

After every third to fifth wash, apply hot wax sealing to your vehicle.

Applying hot wax and using regrasing substances prevents dirts from adhering to surface of the vehicle. This makes washing the vehicle easier.

Paste Wax

Paste wax is used for coating the body surface to remove the scratches and it reduces the damage on paint caused by environmental factors.

Wax

Apply wax to the vehicle to improve smooth dripping on the painted surface or when rain no longer forms drops.

Winter Conditions

Prepare the vehicle for winter conditions as recommended by authorized TEMSA Service.

Corrosive factors as dirt, snow and other external substances remaining on the surface for a long time may damage the body surface and are much more aggressive during winter period.

WARNING

- Apply waxed-based protectives to superstructure, underbody and chassis.
- Repeat this application of preservative on particularly damaged zones.
- Wash and clean the road salt accumulation zones at periodic intervals.
- Grease the chassis, brake system yokes and joints regularly.
- Add approved antifreeze to the heating and cooling system in the correct quantities.
- Change the engine oil on its recommended time according to the specified SAE classes.

Winter Conditions

INFORMATION

Conducting necessary maintenance on the mechanical parts required for winter conditions as recommended by authorized TEMSA service reduces the risk of corrosion.

WARNING

See also maintenance manual delivered with the vehicle for more information on maintenance and checks not indicated in this section.

Repairing

The damage caused by accidents eg. scratches, dents etc. increase the risk of corrosion unless repaired.

INFORMATION

Consult authorized TEMSA service to carry out necessary repairs after accident.

When chemical substance spills over body surface clean the contaminated area with cleaning agents recommended by TEMSA service. Cleaning process protects painted surface against corrosion.

INFORMATION

Wash the vehicle with plenty of water after cleaning process.

Drive slowly on gravel roads to prevent the body surface from being scratched.

When paint work is needed, use materials according to the procedures recommended by TEMSA Service to protect the body against corrosion.

Clean corrosion stains formed on the rim joints and apply wax-based preservatives recommended by authorized TEMSA service.

14 INDEX

A

ABS....156
Accelerator Pedal....34, 93, 134
Adjustment....
Cushion Depth Adjustment....88
Cushion Forward and Backward Slide Adjustment....88
Seat Forward and Backward Slide Adjustment....88
Seat Upright Position Adjustment....88
Steering Wheel Adjustment....90
Suspension Hardness Adjustment....87
Air Filter....46, 126
Alternator....45, 124
Armrest....62
ASR....32

B

Baby Stroller....75
Bar....
Tow Bar....97
Battery....166
Battery....45, 96, 112
Body Leveling....139
Brake....
Engine Brake....33, 34
Parking Brake....53, 94, 95, 157
Retarder Brake....51
Brake Lining Screen....43
Braking Power....34, 51, 94, 156
Buckle....63, 90

C

Checking....
Checking Engine Oil....84
Checking Systems for Leaks....84
Checking Tire Pressure....145
Children....10, 64, 68
Chock....70, 85, 146
Clean Water Tank....78
Coil....90
Compartment....
Engine Compartment....44, 59, 122
Compressor....124
Control Group....48, 65
Control Lever....
Left Control Lever....49
Retarder Control Lever....51
Control Panel....
Lateral Control Panel....52
Left Control Panel....32
Right Control Panel....56
Coolant....40, 84, 123
Cruise Control....34
Cup Holder....55
Current....
Current Fuel Level....37

D

Diagnose Menu....42
Dimmer....35
Dipstick....
Oil Dipstick....125, 126

Door
Front Door 56,110
Dpf Regeneration128
Drive Mode
Powerful Drive Mode133

E
Emergency Exit
Emergency Exit Windows68
Engine
Engine Control Panel127
Escape Hatch72
Exit Windows68
Expansion Tank122

F
Filter
Air Filter126
Fire Extinguisher 66
First Aid Kit70
Fluid
Windshield Washer Fluid 51, 85
Fog Lamps 35, 41, 107
Front Door71
Front Kneeling139
Fuel
Fuel Tank 29, 59, 116, 117

H
Hatch59
Horn49

I
Ignition Key 59, 93
Indicator
Oil Pressure Indicator 43
Temperature Indicator 36, 38
Intarder34

K
Key59
Kick Down134
Kneeling-Lifting139

L
Lamp
Brake Lamps104
Engine Inspection Lamps 105
Front Fog Lamp 35, 107
Luggage Compartment Lamp106
Rear Direction Indicator Lamp 105
Lavatory Waste Tank 80, 81
Level
Fuel Level56
License Plate106
Lift Mechanism75
Low Beam Headlamps35, 106
Lumbar89

M
Maximum
Speed Limit97
Mirror
Rear View Mirror 33, 54, 73, 90

N
Nozzle 85

O
Odometer 36

P
Parking 53, 95, 103, 132, 157
Preheater 41, 56
Pressure .....
- Air Pressure 41, 45, 46, 91
- Oil Pressure 44
- Tire Pressure 13, 144, 145

Propeller Shaft 98

R
Radiator 38, 114
Refuel 96
Retarder Control Lever 51
Reverse Gear 35, 105, 132
Revolution Counter 37
Rope 97

S
Safety Switch 122
Shifting 152
Signal .....
- Left Turn Signal 50
- Right Turn Signal 50

Snow 145, 146
Speedometer 37
Steering Wheel 48, 90
Stopping 94
Sudden Acceleration 134
Sun Visor 74

T
Tire Pressures 84, 144, 145
Toilet 33, 47
Tow Hook 99

U
Unlocking Parking Brake 158

V
Visibility 102

W
Warning .....
- Low Fuel Level Warning 56
- Warning Panel 39, 40

Wheel Nuts 147, 149
Window .....
- Exit Window 69

NOTES

NOTES

Stamp

www.temsa.com

"Value in motion" and "TEMSA" is a trading name of TEMSA Global. The TEMSA Roundel and the TEMSA word mark are registered trademarks of TEMSA Global. The information in this publication is accurate as of its publication date. The information here in is subject to change without prior notice.
Copyright© 2011 TEMSA Global. All rights reserved.