OPERATOR SERVICE BOOK

JBM ELECTRIC VEHICLES PRIVATE LIMITED

ECOLIFE e12

ECOLIFE

JBM Group
Our milestones are touchstones

Vehicle Particulars

Model		Type	
Date of Sale		Date of Registration	
Registration Number		Vehicle Identification Number	
Motor Serial Number			
Battery Details			

Owner's Name -
Address -
Pin -
Contact Number -

Address: JBM Electric Vehicles Private Limited
Plot no. 118, Sector- 59
HSIIDC, Ballabhgarh
Faridabad-121004, Haryana

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(The information given in this book is for illustrative purpose only, and is subject to change without prior notice and without incurring obligation)

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Dear Customer,

Thank you for being our valued customer. Counting you among our customers is something for which we are especially grateful.

The advanced engineering and high-quality construction of each ECOLIFE we build is something of which we are very proud.

The Operator Service Book will introduce you to the features and operation of your ECOLIFE. It is suggested that you read it carefully because the information it contains can ensure your vehicle is ready for operation at all times and better performance at optimum operating costs.

We have tried to make all the information in this book easy to find. The fastest way to find specific topic is to refer to the Table of Contents section of this book.

For your own safety and roadworthiness of the vehicle, follow the instructions and warning given in this book. Ignoring them could result in damage to the vehicle or personal injury to you or others. Vehicle damage caused by failure to follow instructions is not covered by the JBM Electric Vehicles Private Limited Warranty.

Keep this book in the vehicle for quick reference.

We value your patronage and appreciate your loyalty to us. We wish you safe and happy driving.

JBM Electric Vehicles Private Limited

Revision History

NOTE - The black bar on the left side of the page indicates a change in the current revision.

Sr. No.	REASON FOR CHANGE	VERSION	DATE	AUTHOR
1	Creation of Manual	00	Nov - 2025	Technical Publication

ABBREVIATION

Sr. No.	Term	Abbreviation
1	e12	12 Meter
2	RH	Right Hand
3	LH	Left Hand
4	FOP	Front opening panel
5	ROP	Rear Inspection Door
6	HV	High Voltage
7	LV	Low Voltage
8	HVAC	Heating, Ventilation and Air Conditioning
9	FOH	Front Overhang
10	ROH	Rear Overhang
11	FHT	Front Wheel Track
12	RHT	Rear Wheel Track
13	GVW	Gross vehicle Weight

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Contents

ABOUT THIS BOOK

Thank you for choosing ECOLIFE. It is manufactured using the latest technology and strict quality control. We recommend that you take some time to get to know your vehicle by reading this book. The more you know about it, the greater safety and pleasure you will get from driving it. This book is well structured so that it can be easily used for the reference. Illustrations complement the words in this manual to best explain how to enjoy your vehicle. By reading your manual, you will learn about features, important safety information, and driving tips under various road conditions, position of controls and recommended emergency actions. For these reasons, it should be kept in the vehicle at safe and easily accessible location.

This book makes extensive use of icons rather than heavy descriptive text to describe the warning, and to provide important information in a clear and concise way.

The following table provides a description of the icons used in the book:

Icon	Name	Description
	NOTE	*This icon provides a general information or key factual information that enables you to determine the extra information of the section it is describing.*
	WARNING	*This type of icon is used to indicate the presence of a hazard that could cause death or serious personal injury. To avoid or reduce the risk, the procedures must be followed precisely.*
	CAUTION	*This type of icon is used to indicate the presence of a hazard that could cause minor or moderate personal injury or damage to your vehicle. To avoid or reduce the risk, the procedures must be followed carefully.*
	HIGH VOLTAGE	*Indicates very high voltage, proceed with extreme caution.*

In this book all the descriptions, figures and specifications are based upon the latest product information available at the time of publication. We are working on enhancing the features of your vehicle, so there may be deviations between the vehicle and the information in this book. Therefore, it is not possible for legal claims to be made based on different data, figures and specifications available in this book.

Protecting Our Environment

We must play our part in protecting the environment. Correct vehicle usage and the authorized disposal of the waste, cleaning and lubrication materials will help in the same.
Moreover, the production methods used to manufacture your vehicle are likewise environmentally compatible.

Energy consumption and the rate of brake and tire wear depend essentially on the following three factors:

- Style of driving.
- Operating conditions (weather, load and road conditions).
- Maintenance of the vehicle.

Please refer the following tips for protection of environment and safety of your vehicle.

- Do not accelerate and brake unnecessarily. Drive at uniform speed by watching the road.
- Always get your vehicle service done from JBM Electric Vehicle Pvt. Ltd. in their respective depot within recommended time period.

	*Make sure that you do not carry out any repair and maintenance work on the vehicle yourself.*
	*Make sure that you use only recommended brands and grades of lubricants.*
	*To preserve environment, follow appropriate environmental rules and regulations when disposing of materials.*

We recommend that you take some time to get to know more about the driving style and maintenance of your vehicle by reading this book.

GENERAL INFORMATION

This section describes the general information for the sales person and customer.

Delivery

In the entire manufacturing process for your vehicle, our qualified technical team had worked keeping in mind all the safety and quality guidelines to deliver you the finest product of highest quality. Though, the final inspection is done in our manufacturing plant is not to be the last one. The pre-delivery inspection and system check that our technical team performs at the time of delivery is the final inspection. Please assist our technical team while doing the same. Our sales person is available to assist you to understand the warranty clauses.

Sales Person Responsibility

- A Pre-Delivery Inspection (PDI) and systems check is performed to assure a thorough inspection of the ECOLIFE and proper operation of all factory-installed components.
- A customer walk-through is performed to familiarize a new customer with the ECOLIFE, its systems and components, and their proper and safe operation.
- To familiarize the customer about the warranty clauses of the vehicle. For detailed warranty please refer: Warranty Clauses.

Customer Responsibilities

- Customer is responsible for regular and proper maintenance of vehicle. The maintenance guidelines provided in this book should be followed for proper maintenance of the vehicle. Always get your vehicle service done from trained technician by JBM Electric Vehicle Pvt. Ltd. in their respective depot within recommended time period.

To assist you in avoiding problems with your vehicle, it is recommended that you do the following:

- Read the Warranty Clause
- Inspection of the Vehicle

You are responsible for and expected to use your vehicle in a responsible and safe manner.

	*Please go through this book to familiarize yourself with the proper operation of your vehicle and all its features before you attempt to use it.*

Delivery Package

The Delivery Package includes valuable documents about your vehicle, and its components and systems. As with all valuable documentation, please keep them in a safe, secure place for your later use and consultation. The Operator Service Book does not cover every possible detail of your vehicle.

Warranty

New Vehicle Limited Warranty

JBM ECOLIFE Electric Buses ("Vehicles/ ECOLIFE Electric Bus") backed by JBM ELECTRIC VEHICLES PRIVATE LIMITED ("JBM Electric Vehicle"/"Manufacturer") warranty is subjected to Vehicles maintenance strictly in accordance with JBM periodic services as per JBM Electric Vehicle recommendations trained technician by JBM Electric Vehicle Pvt. Ltd. in their respective depot/location and warranty terms and conditions as provided hereinafter.

- **Comprehensive Bus warranty - 2 years / 2,00,000 kms,** whichever occurs first from the date of sale
- **Traction Motor - 3 years / 3,00,000 kms,** Whichever is earlier
- **HV Battery - 8 years / 8,00,000 kms,** Whichever is earlier (AMC Mandatory for HV batteries)

Warranty Terms & Conditions

1. ECOLIFE Electric Bus is covered under Manufacturer's warranty against any Manufacturing Defect, subject to terms and conditions as provided herein below.
2. "Manufacturing Defect" shall mean such defect which, in the opinion of a mutually acceptable expert, result from a deviation from a design specification, use of poor quality material or poor workmanship in the course of/during production of the Vehicle, as applicable.
3. For validity of warranty, the Customer should strictly follow preventive maintenance schedule as per JBM Electric Vehicle's recommendations.
4. The warranty claim will be accepted only after examination carried out by the trained technician of JBM Electric Vehicles Private Ltd. leads to a firm conclusion that none of the original settings in the vehicle have been tampered with and the component or parts have the Manufacturing Defect.
5. In case of a Vehicle in which the components or the associated parts, are not independently replaceable, on account of their being integral parts of the complete assembly, JBM Electric Vehicles Private Ltd. shall have the sole discretion to replace either the entire assembly or by using some of the parts of the system through suitable repairs or modifications.
6. All ECOLIFE Electric Buses drivers must be trained and certified by JBM Electric Vehicles Private Ltd.
7. All ECOLIFE Electric Buses are covered under warranty policy, subject to:

a. Vehicles are properly serviced and maintained at JBM Electric Vehicles Private Ltd's Authorized Service depot/location as per JBM Electric Vehicles Private Ltd 's recommendation for schedule service (free and paid) and all service record up to the time of claim is available at the service depot. On request, Customer has to submit proof of service availed at JBM Electric Vehicles Private Ltd's authorized service depot/location.
b. Each maintenance services must be availed within the specified km or time period limit failing which the warranty shall become null and void.
c. This warranty shall not apply to and JBM Electric Vehicles Private Ltd's shall in no way be liable for any Vehicle which shall have been repaired outside authorized workshop or which has been altered or modified or built upon in any way or which has been subject to misuse, negligence or accident.
d. JBM Electric Vehicles Private Ltd's responsibility is limited to the terms of this warranty and it shall not be answerable for personal injuries or consequential or resulting liability, damage or loss arising from any defects.
e. Only JBM Electric Vehicles Private Ltd's recommended lubricants and consumable are used in Vehicles during schedule service.
f. Only JBM Electric Vehicles Private Ltd's genuine spare parts are used in Vehicles.
g. No welding or unauthorized modification done in the Vehicles or any part of the Vehicle i.e. structure/chassis extension, addition, welding in the structure/chassis etc.
h. JBM Electric Vehicles Private Ltd. obligation under this warranty shall be limited to repairing or replacing, free of charge, such component or parts of the Vehicle which have Manufacturing Defect in the opinion of JBM Electric Vehicles Private Ltd ', on the Vehicle being brought to JBM Electric Pvt. Ltd. or its Authorized Service depot/location within the warranty period. This warranty is expressly in lieu of all warranties; whether by law or otherwise, expressed or implied, and all other obligations or liabilities on the part of JBM Electric Vehicles Private Ltd and JBM Electric Vehicles Private Ltd neither assume nor authorize any person to assume on its behalf any other liability in connection with the sale of the Vehicles. With regard to component or parts not manufactured by JBM Electric Vehicles Private Ltd. but supplied by other vendors, such as tyres, batteries and accessories; this warranty will not apply but the Customer of the Vehicle shall be entitled to, so far as permissible by law, all such rights as JBM Electric Vehicles Private Ltd may have against such parties under their warranties in respect of such parts. Warranties will be in line with as offered by such vendors & can be directly settled with such vendors' service network. No agent/JBM Electric Vehicles Private Ltd.'s Staff is authorized to extend or enlarge the scope of warranty as mentioned in this warranty policy.
i. All failed component or parts replaced under warranty shall be the property of JBM Electric Vehicles Private Ltd. In no circumstances, Customers shall have any right/claim on such component or part.
j. Customer shall have no right to claim compensation on account of loss due to down time, Incidental/Consequential failure, business loss, opportunity loss, inconvenience, loss accrued due to finance on Vehicle.
k. Ancillary parts/aggregates fitted in the Vehicle are warranted directly by the respective manufacturer i.e. tyres, battery etc.

Warranty shall not apply in the following circumstances:

I. Vehicle used on roads not meant for vehicular traffic.
II. Vehicle used in races or any such competition.
III. Misuse/abuse/negligence/accident/carrying overload, exceeding Manufacturer's defined maximum permissible limit of GCW/GVW the vehicle.
IV. Vehicle improperly/inadequately maintained and not following the guidelines of JBM Electric Vehicle for maintaining the Vehicle.
V. Knowingly/unknowingly use of adulterated/substandard fuel, lubricants and spurious/substandard quality spares.
VI. In all above cases, JBM Electric Vehicle's decision shall be final and binding.

a) Warranty shall not be applicable on component or parts required to be replaced due to normal wear and tear, rubber, glass, soft trim, and normal ageing & parts & consumables as indicated in preventive maintenance schedule, including but not limited to the following:
   i. Gaskets
   ii. Bulbs
   iii. Fuses and Lamp Covers
   iv. Plastic items (Noise shield, Mudguard, spray suppressions)
   v. Rubber items (wiper blades, bump stop rubber pad, weather strip etc.)
   vi. Glass, Mirrors (except windscreen glass)
   vii. Fasteners, Clamps, & Clips.
   viii. Wear and tear items.
   ix. Lubricants and Consumable items.
   x. Component or parts recommended to be replaced at scheduled/periodic service.
   xi. Paint fading, paint damages due to improper handling/driving practices, corrosion due to chemical reaction, scratches etc.
   xii. Upholstery items such as seat cushion and cover.
   xiii. Schedule service/ Periodic inspection Jobs (Fasteners tightening, brake setting/wheel alignment, wheel rotation etc.) shall not fall under purview of warranty.
   xiv. Oil ooze, fumes, noise and vibration which do not affect the performance of the vehicle and shall be considered part of vehicle characteristics.
   xv. Due natural calamities Fire, Flood, Thunder lightening, Acid rain, Rain, Earth Quake, Hail wind storm or any other act of God/Nature

a) Warranty shall be applicable to 1st owner of the Vehicle only; In case of resale of the Vehicle, the purchaser of the Vehicle shall not be eligible for the warranty benefits on the Vehicle.
b) JBM Electric Vehicle reserves the right of making changes in the Vehicle as part of product improvement. It will be JBM Electric Vehicle's prerogative to incorporate such changes in field Vehicle (sold vehicles) on FOC/charge basis.

In case of breakdown, Customer is expected to bring the Vehicle at his own cost to JBM Electric Vehicle's nearest Authorized Service Centre for warranty repairs. No charges for recovery/towing of the Vehicle shall be reimbursed either by JBM Electric Vehicle Pvt. Ltd.

Warranty Terms & Conditions

JBM Electric Vehicle's liability under this warranty is limited to the cost of repair or replacement of the component or parts which have Manufacturing Defect, in JBM Electric Vehicle's sole discretion. In no event shall JBM Electric Vehicle Pvt. Ltd. be liable for special, indirect, incidental, or consequential damages including, but not limited to, injuries to persons or damage to property, loss of profits or anticipated profits, or loss of the Vehicle use.

Warranty shall not apply to:

1. Normal ageing, deterioration or rusting of plated parts, paint coat, rubber parts, upholstery, FRP, plastic parts and soft trim.
2. Normal periodic replacement parts and routine maintenance services such as consumable items (Lubricating Oils, Grease, Coolants, etc.) Oil Seals, Gaskets, Hoses, Repair Kits, Shims, Wiper Blades, Filters.
3. Normal wear and tear components.
4. Damage due to use of component or parts other than JBM Electric Vehicle genuine/recommended component or parts.
5. Damage due to absence of radiator cap/usage of other than recommended cap, absence of coolant /usage of coolant in any ratio other than recommended.
6. Damage due to the use of lubricants/oils/grease/coolant/electrical items etc. other than that specified or otherwise recommended by JBM.
7. Damage like any seizures and discoloration etc., due to the use of lubricants/oils/grease/coolant etc. other than the specified grade recommended by JBM.
8. Damage due to misuse such as loading in excess of the GVW as certified by JBM Limited, improper driving leading to issues in power train, axle shaft, overrunning due to negligence in driving, involvement in races, rallies and places not meant for vehicular traffic, Damage due to usage of any vehicle in other than normal application for that vehicle.
9. Damage due to repair carried out by any person other than JBM trained/authorized technician or due to non-adherence to standard repair procedure prescribed by JBM.
10. Damage due to unauthorized alterations in suspension system, cooling system, brake system, electrical system, Frame, Body, any other aggregate.
11. Any damage due to non-adherence of maintaining tightening of fasteners/wheel alignment/wheel balancing/tyre rotation/tyre inflation.
12. Bulbs & fuses issues.

13. Incidental or consequential damages such as loss of time due to non-use of vehicle, Inconvenience or damages of personal property, commercial loss such as loss of revenue, Towing charges, parking and insurance charges etc. during the period when the vehicle is undergoing service/ warranty repairs.
14. Damage due to traffic, riots, terrorist activity, mutiny, rodent bites, accident, fire, floods, earthquakes, chemical pollution and or any such natural calamities Irregularities not recognized as affecting quality or function of the Vehicle or its constituent part such as slight noise, vibrations, oil ooze, fit and finish, gaps etc.
15. Vehicles declared as "total loss" by insurer.
16. Vehicles where Odometer is observed to be tampered/not working. If odometer or hour meter is not working due to manufacturing issue, it must be immediately brought to notice of JBMEVPL's recommended location or place and get rectified.

For obtaining warranty services, the Customer must bring the Vehicle to the JBMEVPL's recommended location or place of business where such warranty services will be performed. This warranty shall not apply, if the Vehicle is not maintained as prescribed by JBMEVPL.
This warranty is expressly in lieu of all warranties; whether by law or otherwise, expressed or implied, and all other obligations or liabilities on JBMEVPL's part and JBMEVPL neither assumes nor authorizes any person to assume on JBMEVPL's behalf any other liability in connection with the sale of JBMEVPL vehicles.
The Customer shall have no other rights except those set out above and have, in particular, no right to repudiate any agreement to claim any reduction of the purchase price or to demand any payment of damages or compensation for accrued losses.
For entitlement of warranty, it is necessary that all the "Recommended Services" are availed by the Customer as per the Maintenance schedule prescribed by JBMEVPL. These services must be availed at JBMEVPL Service locations only. Any Claim arising from this warranty shall be recognized only if it is notified to JBMEVPL Authorized Service Locations concerned or to JBMEVPL immediately on occurrence of the defect without delay. If Vehicle is used even after detection of any defect, warranty shall not be applicable. This warranty policy supersedes all other policies implied earlier and all other obligations or liabilities on JBM Electric Vehicle's part. JBM Electric Vehicle Pvt. Ltd. reserves the right to make changes in design of the Vehicle or introduce any Improvement or add any part on Vehicles at any time without any obligation to install these changes on the Vehicles previously sold. JBMEVPL's decision on all warranty claims shall be final and binding.
Any dispute arising between JBMEVPL and the Customer on the liability of JBM Electric Vehicle Pvt. Ltd. under this warranty shall be subject to the jurisdiction of the civil courts at Faridabad.

	*Maintenance parts like filters, coolants & lubricants and perishable rubber parts are not covered under this warranty.*

Customer Assistance

Our target is to keep you happy with your vehicle. Our JBM Electric Service Centre or Authorized Service Centre offers first class service at competitive prices. Well experienced and factory-trained technicians work according to the safety guidelines and maintenance instructions. We always use genuine JBM Electric parts, which have undergone strict quality and precision checks. If you wish to set up an appointment for schedule service, or wish to order parts, or for road assistance, please contact Service center.

If any question arises after reading this book or you want to write us, please find the address below:

Corporate Office - Head - After Sales,

JBM ELECTRIC VEHICLES PRIVATE LIMITED
Plot No.118, Sector 59
HSIIDC, Ballabhgarh
Faridabad - 121004
Haryana

Email ID - techpub.support@jbmgroup.com

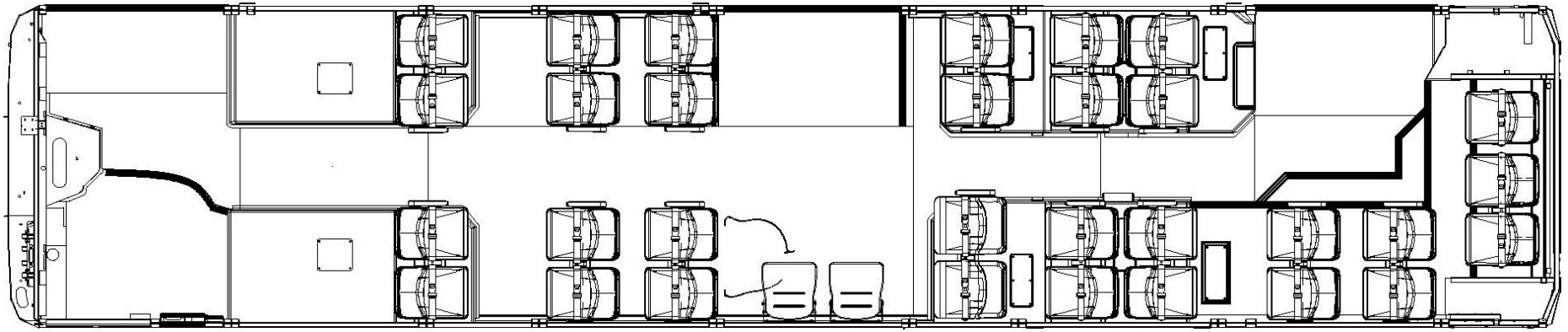
About *ECOLIFE*

ECOLIFE is an electric vehicle and does not require petrol or CNG like a vehicle powered by a traditional internal combustion engine. ECOLIFE uses electrical energy stored in the lithium ion (Li-ion) battery. The vehicle's Li-ion battery must be charged before the vehicle can be driven.
As the vehicle operates, the Li-ion battery gradually discharges. If the Li-ion battery becomes completely discharged, the vehicle will not operate until it is re-charged. The Li-ion battery provides power to the electric motor (traction motor) that moves the vehicle. The Li-ion battery also charges the 24-volt battery which is also used to operate vehicle lights (interior & exterior) and other low voltage operating systems.
Additionally, the vehicle system can extend the vehicle range by converting driving force into electricity that is stored in the Li-ion battery while the vehicle is decelerating or being driven downhill. This is called re-generative brake energy.
Electric buses designed by JBM Electric, features the advantages of zero emission, economy, power, safety, reliability, overhead Air-conditioner, elegance, performance and comfort. With new and widened dimensions, the ECOLIFE ensures improved habitability for seated and standing passengers.

The innovative concept and the drive technology of the electric buses where complete power is supplied from the onboard battery system that enhances economy, minimize the maintenance and provide emission free environment.

Seating Layout

The following figure illustrates the standard sitting layout of your vehicle.



- Total Number of Passenger Seats – 31
- Driver Seat – 1
- Wheelchair – 1
- Foldable Seats – 2

Accessories

The following accessories are delivered with your vehicle.

Sr. No.	Name	Quantity	Location
1	Glass Break Hammer	9	1 in Driver Compartment, 8 in Passenger Cabin
2	Wheel Chock	2	Will supply with the vehicle separately
3	Towing Hook	1	Will supply with the vehicle separately
4	Fire Extinguisher	3	Driver Compartment & Below First Passenger Left Seat
5	Emergency Triangle	2	Will supply with the vehicle separately
6	Bus Tool Kit	1	Will supply with the vehicle separately
7	First Aid Kit	1	Driver Compartment

TECHNICAL INFORMATION

This section describes the technical and label information of your vehicle.

Technical Specifications

The following table lists the technical specifications of your vehicle.

DESCRIPTION	TECHNICAL SPECIFICATIONS
Model	ECOLIFE e12
External	
Overall Length	11950 mm
Width	2550 mm
Height	3750 mm
Wheel Base	6000 mm
Front Overhang	2530 mm
Rear Overhang	3420 mm
Front Wheel Track	2146 mm
Rear Wheel Track	1909 mm
Floor Height above Ground	360 mm (Full Low Floor)
Floor Step Height	320 mm with Kneeling
Axle Clearance	160 mm min
GVW	19400 Kg
Kneeling	Yes
Minimum ground clearance (Un-kneeled) at GVW	Wheel Area:-220 mm for body side & 170 mm for axle side, between wheel base:-240min

DESCRIPTION	TECHNICAL SPECIFICATIONS
Transport Capacity	
No. of Seats	31 + 1 (Driver Seat) + 1 (Wheelchair) + 2 (Foldable Seats)
Power Train	
Propulsion System	Pure Electrical - Battery Operated
Type of Motor	Permanent Magnet Synchronous Motor
Motor Capacity	189kW - Continuous 250kW - Max Peak Power
Traction Cooling System	Liquid Cooled
Motor Controller	Yes
Overcurrent Protection	Yes
HV Battery	
Type	Lithium-ion NMC Battery
No. of Battery Pack	9 Packs (42.76 kWh X 9)
Battery Capacity	385 kWh
Battery Cooling System	Liquid Cooled
Charging Port	CCS-2 Plug-in Type
Charging Option	With DC Fast Charger (off-board plug-in)
Number of Charging Ports	2 (300 A x 2 nos)
Electrical Regeneration	Yes
Battery pack Location	All batteries on roof

DESCRIPTION	TECHNICAL SPECIFICATIONS
Performance	
Max Speed	80 Kmph
Grade ability	17%
Turning Circle Diameter(TCD)	21 meter
Axle & Suspension	
Type of Suspension System	Electronically Controlled Air Suspension System
Front Suspension	Pneumatic suspension with 2 nos. of bellows & 2 Shock ABS
Rear Suspension	Pneumatic suspension with 4 nos. of bellows & 4 shock ABS
Front Axle	Axle with Independent front Suspension
Rear Axle	Inverted porter axle
Brake System	
Service Brake System	Full Air Brakes
Brake Type	EBS & ESC
Front Brake Arrangement	Fully ABS with Disc Brake
Rear Brake Arrangement	Fully ABS with Disc Brake
Regenerative Braking	Yes
Anti-lock Braking System	Yes
Hill Hold Control	Yes
Door Lock Braking	Yes

DESCRIPTION	TECHNICAL SPECIFICATIONS
Steering System	
Type of Steering System	Hydraulic power assisted, Adjustable - Tilt & Telescopic
Steering Wheel Diameter	480 mm
Steering Motor	3.7 kW
Pump	Powered by Electric Motor
ITS & ADAS	
Destination Board	Front & Rear
Mic	Yes
Speaker	Yes
Surveillance Camera	Yes
Reverse Camera	Yes
Alcohol interlock device	Yes
Doors & Windows	
Driver Door Operating Mechanism	Manual Operated Mechanical Type
Passenger Door Operating Mechanism	Single door Electro-Pneumatic Inswing type
Quantity	3 Passenger and 1 Driver Door
Position of Door Controls	On dashboard and for emergency operation, Inside & outside bus
Door Type	Front Door - Inswing type, Middle & Rear - Outswing type
Anti-pinch Sensor	Yes
Ventilation Escape Hatch	Yes

DESCRIPTION	TECHNICAL SPECIFICATIONS
Driver's Cockpit	Covered Cockpit with Half door
Bus Body	
Body Structure	Monocoque body construction with Luggage space
Side Panel - Exterior	Upper Panel -1.5mm Aluminium Lower Panel – Aluminium skirt panel
Front & Rear	Multilayer FRP
Roof Paneling - Exterior	3 mm GFRP sheet
Roof Paneling - Interior	ACP
Side Paneling - Interior	ABS
Dashboard	Multilayer FRP
Electrical System	
LV Battery	Two Batteries, 12V DC each, 180 AH, Lead acid type
LV Battery Cut-off Switch	Heavy Duty Type, capable of carrying & interrupting total circuit load. Provided at LV Battery Compartment and RBC on Dashboard
HV Battery Cut-off Switch	Provided at Dashboard
Electrical Wiring & Controls	Multiplexing Type
Windscreen Wiper System	Electrically Operated with 2 Wiper Arms & Blades

DESCRIPTION	TECHNICAL SPECIFICATIONS
Wiper Motor	24V DC, Heavy Duty steel body with minimum 2-speed operation. Variable Speed with time delay
Windscreen Wiper Washing Tank Capacity	3 liters
Air Conditioning System	
Air Speed Controller	Provided
Mode	Automatic (Cooling+Heating)
Demister	Yes
Glasses & Windows	
Front Windshield	Single Piece Laminated Curved Glass, Tinted
Rear Windshield	Toughened Glass, Tinted
Side Windows	Toughened Glass, Tinted
Floor	
Floor Ply board	Phenolic Resin Bonded Laminated Wooden Floor Board
Vinyl	Anti-Skid material
Driver & Passenger Seats	
Driver Seat	Mechanical Adjustable Seat, With 3 point ELR Recoil Type
Passenger Seats	31

DESCRIPTION	TECHNICAL SPECIFICATIONS
Seating Layout	2X2 seating layout
Armrest	Yes
Seat Belt	Yes
Wheels & Tyres	
Tyre	Radial Tubeless Tyres
Tire Size	275/70 R22.5x8.25 Tubeless Radial
Tire Pressure	125 psi
Spare Wheel	Yes
Miscellaneous	
Speed Limiting Device	Controlled through Software
Sun Visor	One at Front windshield and one at Driver window
Handrails	Yes
Handholds	Yes
Stop request Switch	Yes
Tow Hook	Yes
Rear View Mirror	2 External (LH and RH) and one Internal
Front Bumper Mirror	1 External (LH Side)
Fire Extinguisher	3 Provided (One in Driver Compartment and One in passenger cabin)
Glass Breaking Hammer	Nine
Bus Tool Kit	Yes
First Aid Kit	Yes

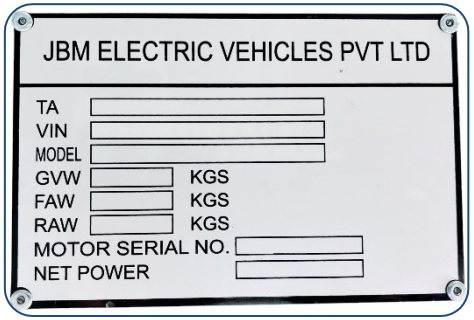
DESCRIPTION	TECHNICAL SPECIFICATIONS
Fan	One for Driver
Power Port	USB type

Specification Labels

This section describes the certification and label information of your vehicle.

	The labels shown in this section are examples only. Actual label locations and specifications may vary from vehicle to vehicle.
	Do not remove label plates from your vehicle under any circumstance.

The following table lists the different label in your vehicle.

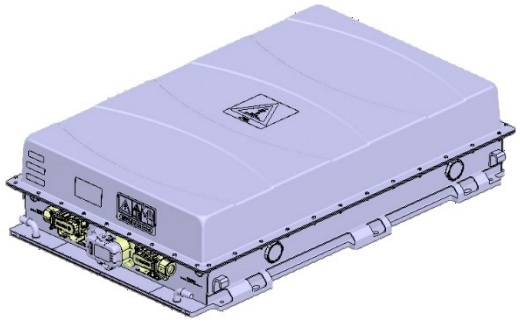
Vehicle Identification Plate	Punch Chassis Code
	

FEATURES

This section describes the features of your vehicle.

Traction Motor

Feature: Permanent Magnet Technology & Thermal protection
Benefit: Optimal efficiency & Safety
ECOLIFE is configured with electric motor used for propulsion of the vehicle that has proven permanent magnet technology and ensures optimal efficiency. The traction motor is cooled by a liquid cooling system that ensures the working temperature of the motor is within temperature limits.

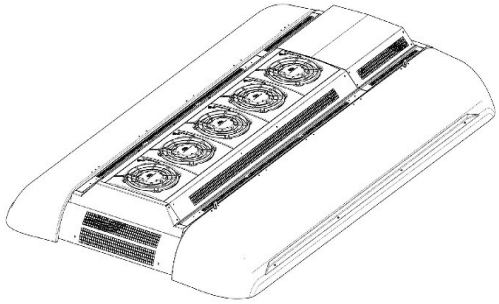


Battery Pack

Feature: High Capacity & Liquid Cooled
Benefit: Safety and Durability
ECOLIFE is equipped with nine lithium-ion battery packs that supply electricity to the Drive System, Electric Air Conditioner, Electric Driven Steering Oil Pump and Electric Driven Air Compressor with zero air and noise pollution.

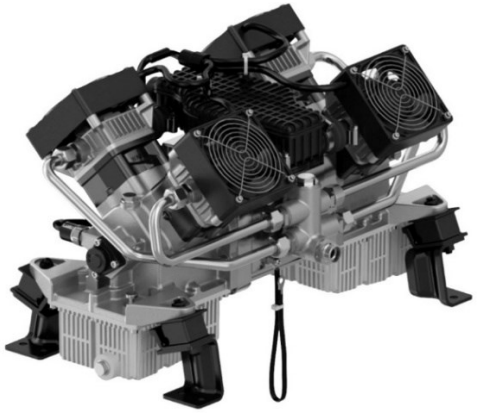
Traction Controller

Feature: Configurable voltage and frequency 3-phase output
Benefit: High Efficiency
Traction controller dynamically control the frequency and output voltage for a 3-Phase AC induction motor (traction motor).



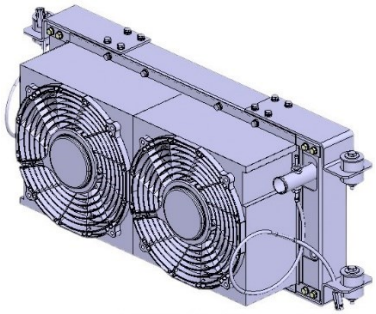
Air Conditioning

Feature: Keeping you Cool
Benefit: Comfort
Globally proven customized Air Conditioner for quick cooling in extreme temperature. The air flow system is designed to provide well distributed cold air flow to all passengers. Louvers are provided above passenger seats for continuous airflow.



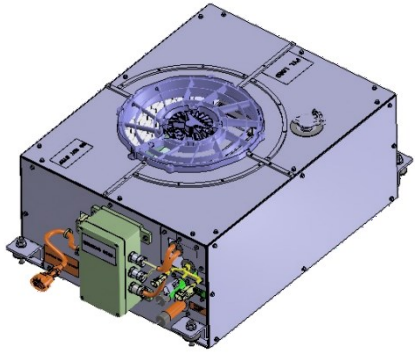
Electric Air Compressor

Feature: Thermal protection & Automatic on/off
Benefit: High efficiency & Safety ECOLIFE is configured with Electric Air Compressor that supply air to major components such as Service & Parking Brakes System, Passenger Doors & Suspension System.



Traction Cooling System Radiator

Feature: High heat dissipation power & cooling efficiency
Benefit: High efficiency & Safety
The radiator transfers the heat from the coolant inside to the air outside, thereby cooling the coolant, which in turn cools auxiliary inverter & DC-DC Inverter, motor controller & traction motor.



Battery Cooling System

Feature: Compact Design, High heat transport capability, Lower Pumping power & ability to maintain uniform temperate gradient within the battery pack.
Benefit: Enhance battery life & capacity.
ECOLIFE is equipped with Battery cooling system (BCS) that supply coolant to the battery packs to maintain the battery temperature within the desired operating range.

Brite Lite

Feature: Contemporary and aesthetic lighting
Benefit: Safety, Comfort & Aesthetics
The front of the bus is equipped with State-of-the-art lighting system in the most modern Aero-Wing design popular with luxury cars. The Projection Lamps and Led lights provide highest visibility and durability while driving the vehicle. The Saloon is also equipped with Led lights.

Trans-Vu - Wide & Clear Glasses

Feature: Trans View
Benefit: Safety & Spacious feel
The vehicle is configured at extremely high panoramic visibility from outside and inside. Clear and broader lateral glasses facilitate clear view internally and externally, till the end of the bus. It also has asymmetric front windshield for better maneuverability.

Easy Maintenance

Feature: Designed to minimize physical efforts and discomfort and maximize efficiency
Benefit: Comfort for Technician
Ease of real time maintenance is incorporated in designing stage resulting in intelligent packaging allowing easy access to all maintenance components. It has secure and ergonomic access of electronic devices. Openable bottom panels for underbody access from side. On Board Diagnostics equips the driver/technician to know any malfunction that occurs within the bus.

GFRP Parts

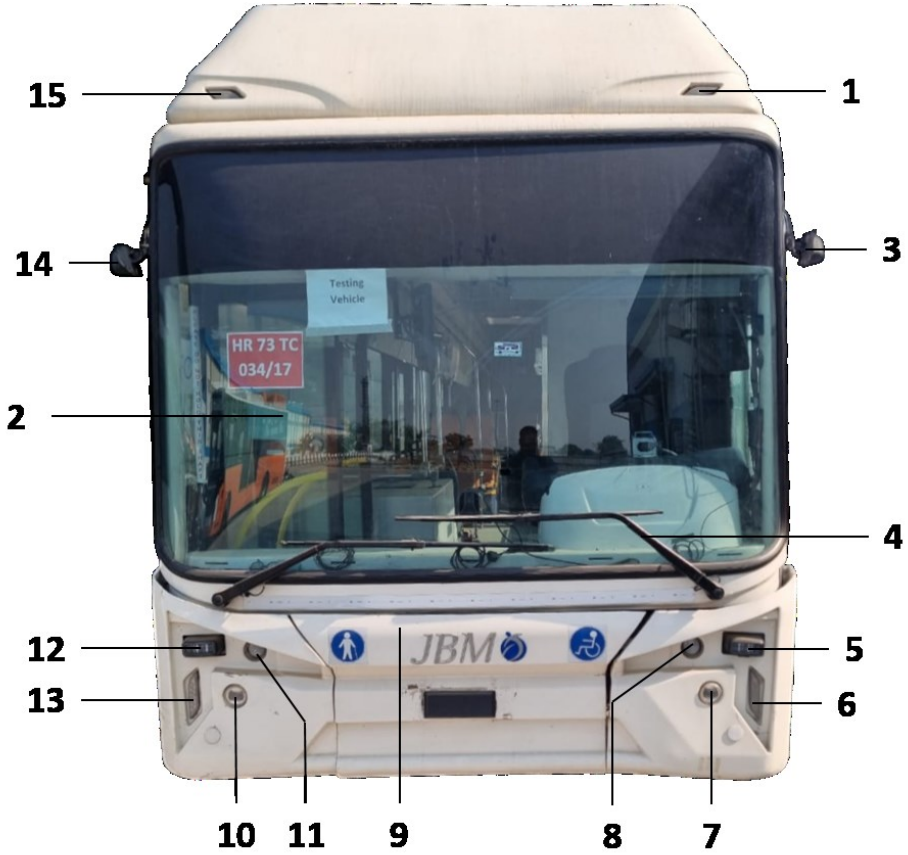
Feature: Contemporary Material
Benefit: Comfort
High strength glass fibers composites parts especially for the front end, rear end & the roof. FRP roof sheets absorbs noise (such as rain), provides thermal insulation and is totally leak proof being one-piece.

Exterior Features

This section describes the exterior feature of your vehicle.

Front View

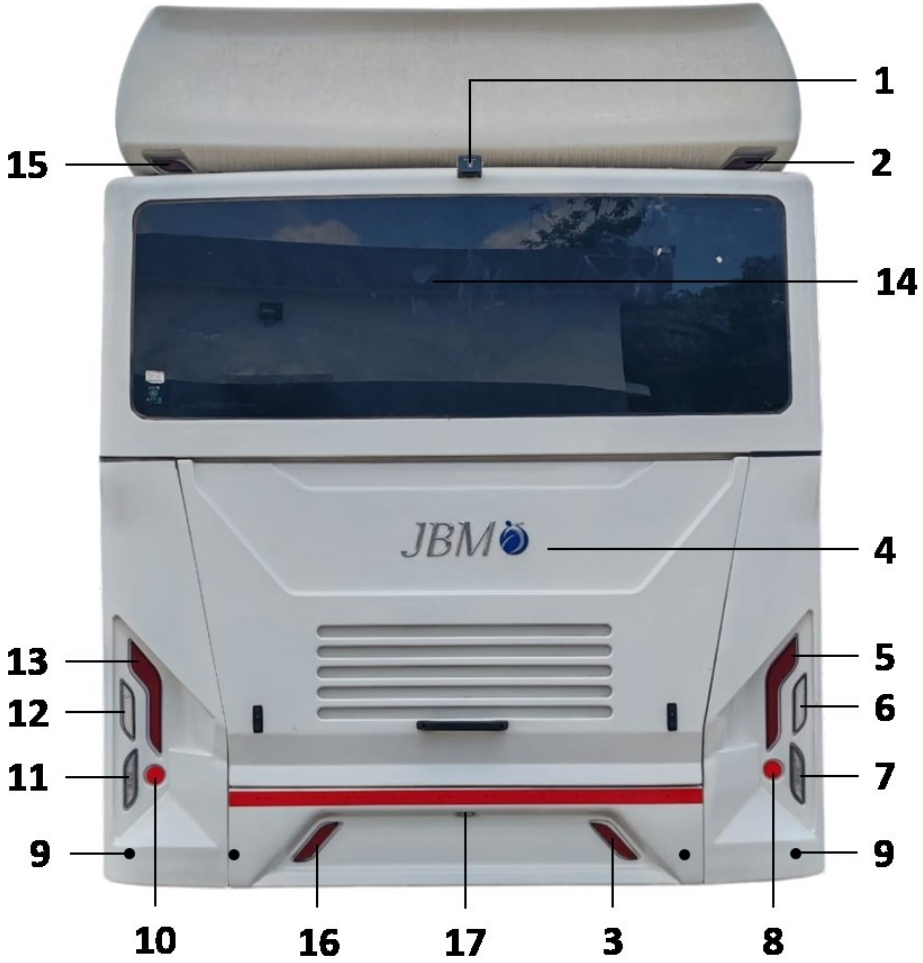
The following figure illustrates the features available on the front side of your vehicle.



Sr. No.	Description
1	LH Front Top Marker
2	Front Windshield
3	LH Camera
4	Wiper
5	LH High-Low Beam
6	LH Direction Indicator
7	LH Reflector
8	LH Fog Lamp
9	Front Opening Panel (FOP)
10	RH Reflector
11	RH Fog Lamp
12	RH High-Low Beam
13	RH Direction Indicator
14	RH Camera
15	RH Front Top Marker

Rear View

The following figure illustrates the features available on the rear side of your vehicle.



Sr. No.	Description
1	Rear View Camera
2	RH Rear Top Marker
3	RH Rear Fog Lamp
4	Rear Inspection Door
5	RH Stop Light
6	RH Direction Indicator
7	RH Reverse Light
8	RH Reflector
9	Reverse Parking Sensor
10	LH Reflector
11	LH Reverse Light
12	LH Direction Indicator
13	LH Stop Light
14	Rear Windshield
15	LH Rear Top Marker
16	LH Rear Fog Lamp
17	LED License Plate Lamp

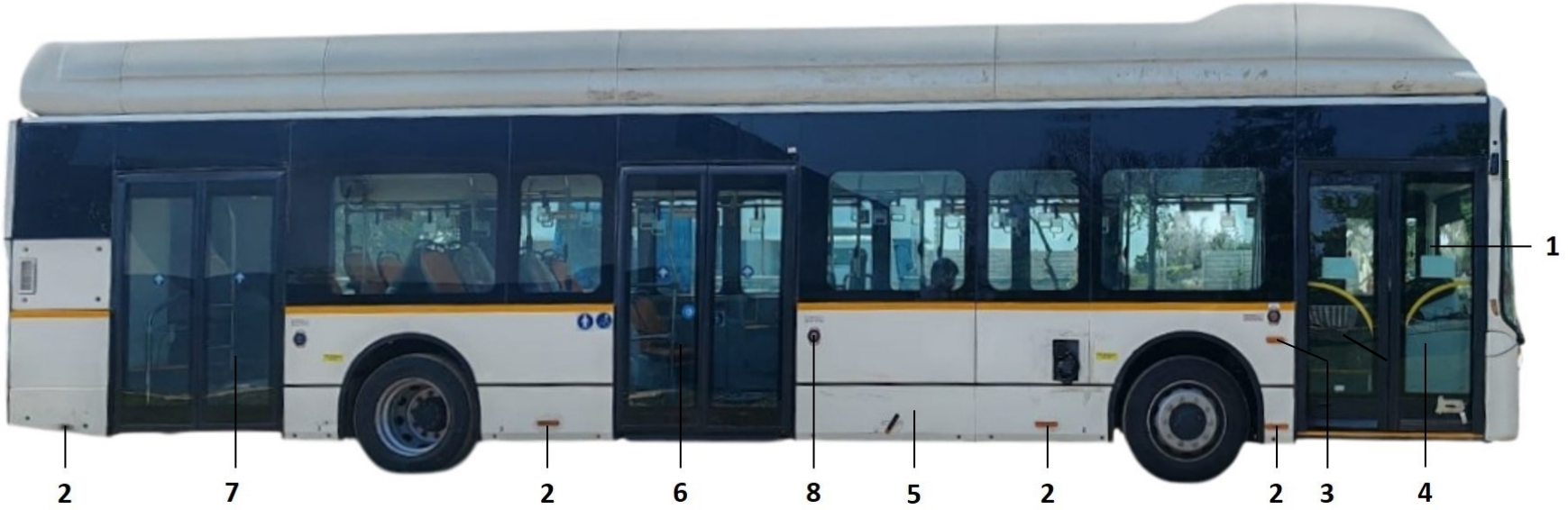
Left Hand Side View

The following figure illustrates the features available on the left side of your vehicle.

Sr. No.	Description	Sr. No.	Description
1	Driver Door Window	4	Side Marker
2	Driver Door	5	Emergency Exit
3	Direction Indicator	6	Charging Port

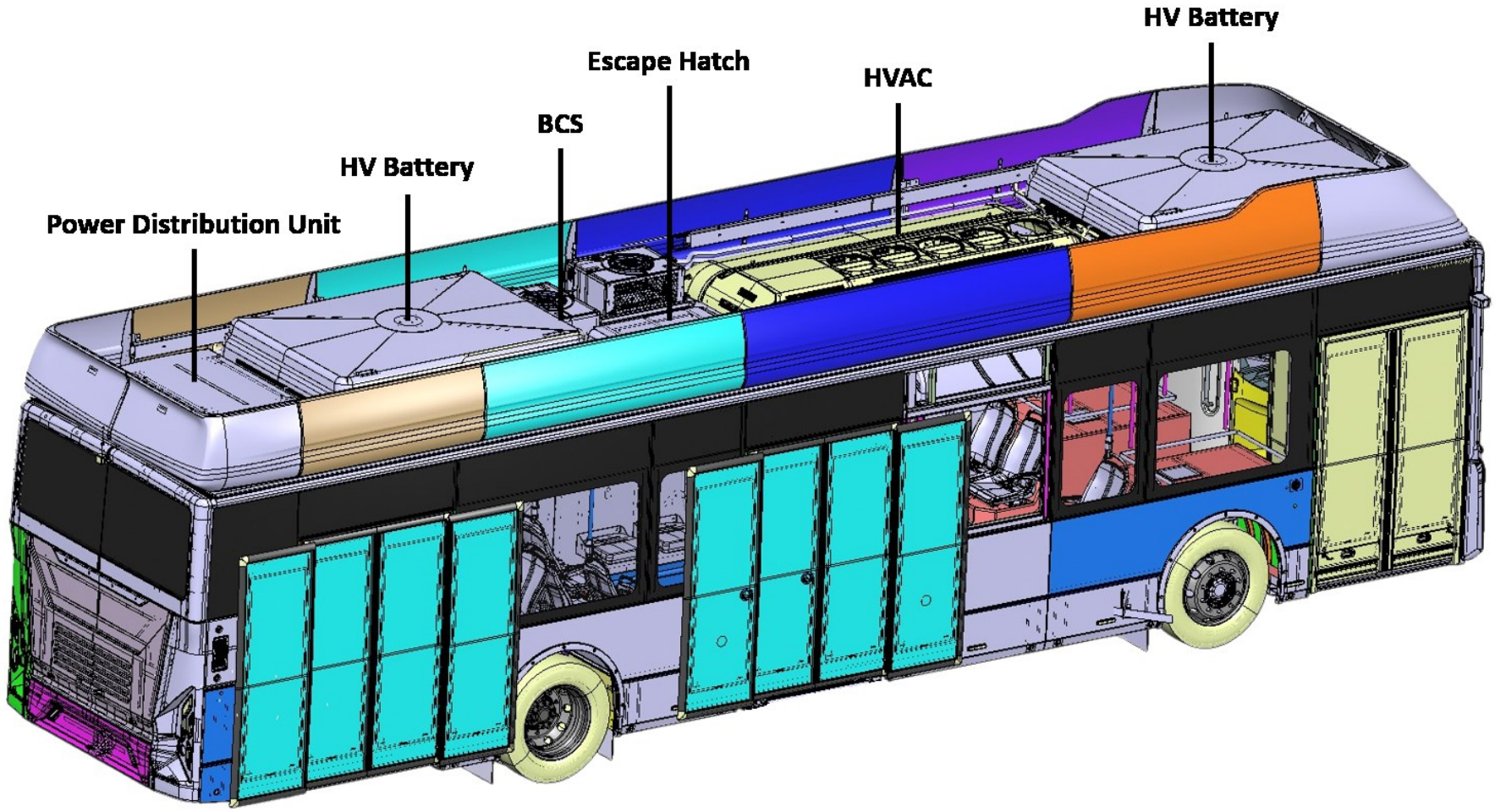
Right Hand Side View

The following figure illustrates the features available on the right side of your vehicle.

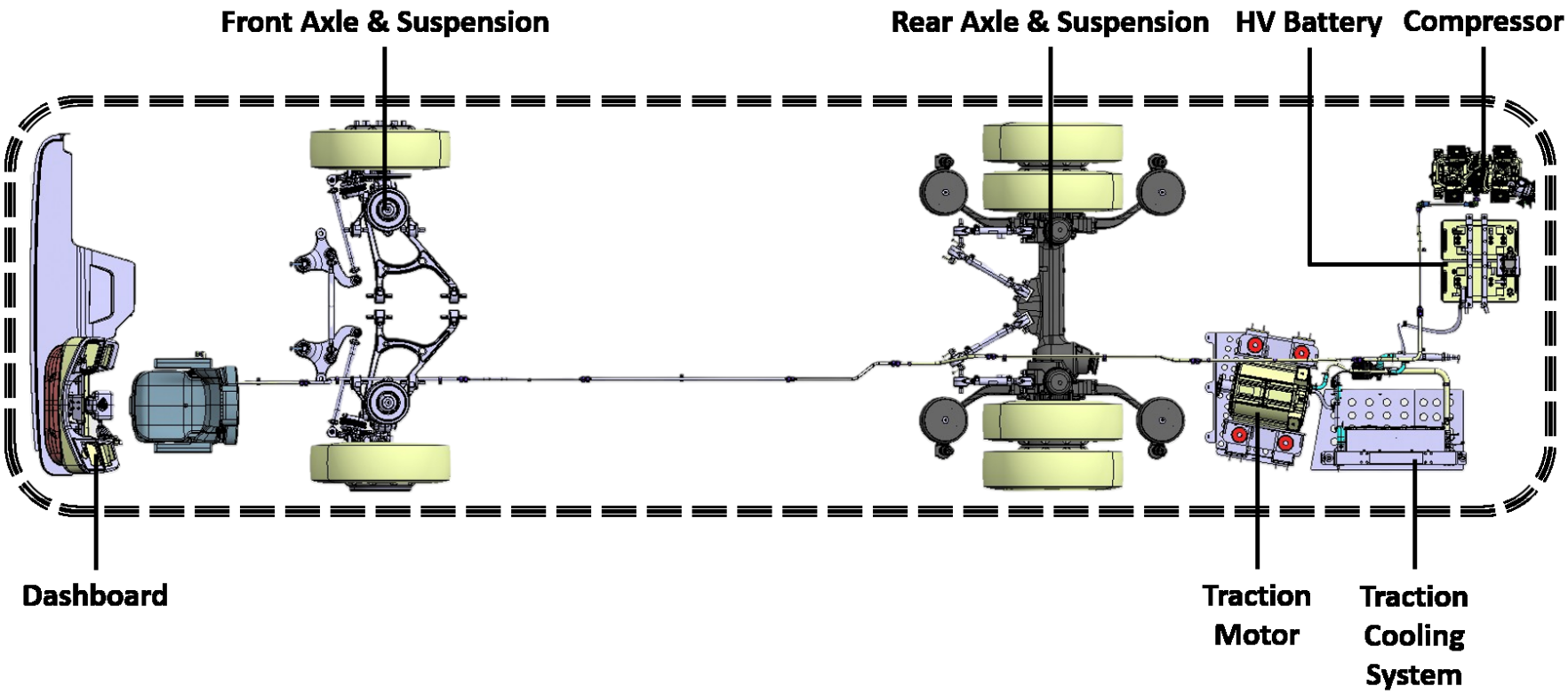


Sr. No.	Description	Sr. No.	Description
1	Front Passenger Door	5	HV Battery Compartment
2	Side Marker	6	Middle Passenger Door
3	Direction Indicator	7	Rear Passenger Door
4	Front Passenger Door	8	Emergency Door opening switch

Roof Top View



Top View


Front Axle & Suspension
Rear Axle & Suspension
HV Battery
Compressor
Dashboard
Traction Motor
Traction Cooling System

Interior Features

This section describes the interior features of your vehicle.

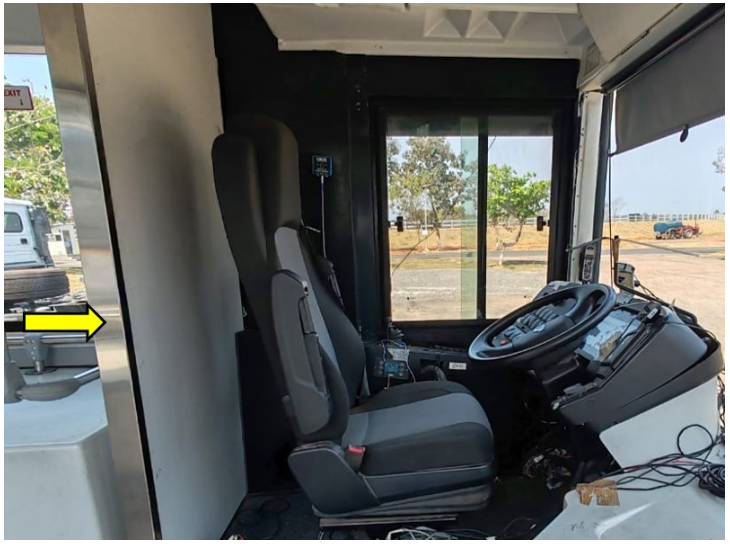
Driver Seat and Window

The driver seat in your vehicle is made by keeping in mind all the driving conditions. This seat can be adjusted according to the requirement. For example: Front & Back. To open the driver window, press the lock and slide the window forward. The window will only open half-way.

⚠	*Make sure that you do not adjust the driver's seat while driving; you can lose control of the vehicle. After adjustment, make sure that seat is locked in place.*

Driver's Fence

The driver compartment has been separated from passenger compartment with driver fence. A fence is also provided behind the driver seat.



⚠	*Do not talk to the passengers while driving the bus.*

Sun Visor

To avoid the sun glare from front and driver window side, two sun visors are provided in your vehicle in the driver compartment. You can pull the sun visor down and lock at a required position. To unwind the sun visors, gently pull the rope to put to the original position.

Passenger Seats

Your vehicle is fitted with 49 seats with cushioned for soft and comfortable ride.

Public Address System

To address the people regarding route, general information or emergency, speakers are provided in your vehicle at side panels. Driver can announce regarding the emergency situation via Mic and safety messages; and route information is displayed on the destination board fitted inside the vehicle.

Roof Lamp

Contemporary and aesthetic lighting is provided in your vehicle to maintain the illumination level in the bus. Separate lights are provided for each passenger and passenger door.

Stickers

All the general, guidance and emergency information stickers are provided in your vehicle.

Louvers & Vents

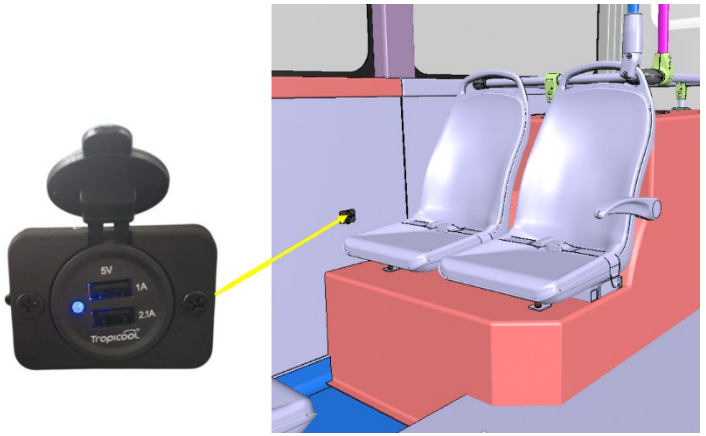
The louvers are provided at each seat keeping in mind the comfort of the passengers.

Camera

One rear view camera are provided in your vehicle. The rear view camera is designed as an aid to the driver in detecting large stationary objects to help avoid damaging the vehicle while reversing the vehicle.

USB Port

The Bus is provided with fast charging USB port below your seat which allows passengers to charge their digital devices like smartphone, and PC tablets.



Internal Rear View Mirror

The internal rear view mirror provided in the vehicle is at such a location so that driver can have a better view of inside the vehicle.

Safety Features

This section describes the safety features available in your vehicle. Your vehicle is designed and manufactured to provide you maximum safety. We have indicated throughout this book that how to safely operate and use the various features on your vehicle. Please take time to read this book to become familiar with the features of your vehicle and please pay special attention to the notes and instructions that explain important safety precautions.

Passenger Door Anti-Pinch Sensor

A sensor is provided in the passenger doors, so that if any obstruction in the passenger doors are sensed by the sensor while closing, then doors will retract immediately.

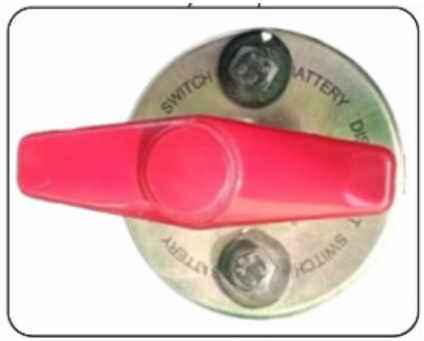
Driver Seat Belt

For the safety of the driver, seat belt is provided in the bus. In case of collision, the seat belt spreads out the energy of the moving body over the chest, pelvis, and shoulders.

LV Battery and Manual Cut-off Switch

The LV battery provides the power supply to the low voltage system such as, Interior and exterior lighting, Infotainment systems, Instrument clusters and dashboard electronics, HVAC controls (not the compressor itself), Door mechanisms and sensors, and Cameras and safety systems etc.

The battery cut-off switch provided in the vehicle to disconnect the power supply of the LV battery.



ON/OFF MODE of the Battery Cut-off Switch:

I. To **CUT-OFF** the power supply, rotate the LV battery to OFF mode.

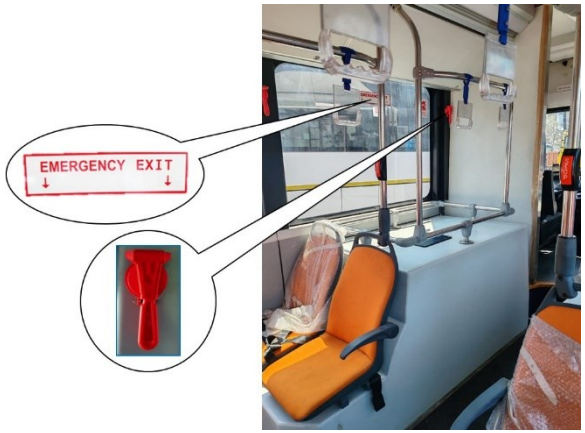
II. To turn **ON** the power supply, rotate the LV battery to ON mode.

When switching on/off the LV battery power supply, the switch should be rotated in clockwise direction to change the power supply mode.

Do's and Don'ts for LV Battery

Emergency Exit

Three emergency exit windows are provided in your vehicle. Emergency sticker is pasted over emergency door glass.



Emergency Switch

An emergency switch is provided on the Left side of the dashboard to warn the passengers in case of emergency. A warning alarm starts playing immediately along with flashing light mounted inside the vehicle.

TO REDUCE THE POSSIBILITY OF ARCING, REMOVE THE NEGATIVE (-Ve) BATTERY CABLE FIRST AND ATTACH THE NEGATIVE (-Ve) BATTERY CABLE LAST. ENSURE THAT CORRECT TOOLS ARE USED WHILE REMOVING TERMINALS OF BATTERY TO AVOID SHORT CIRCUIT.

Emergency Door Opening switches (Internal & External)

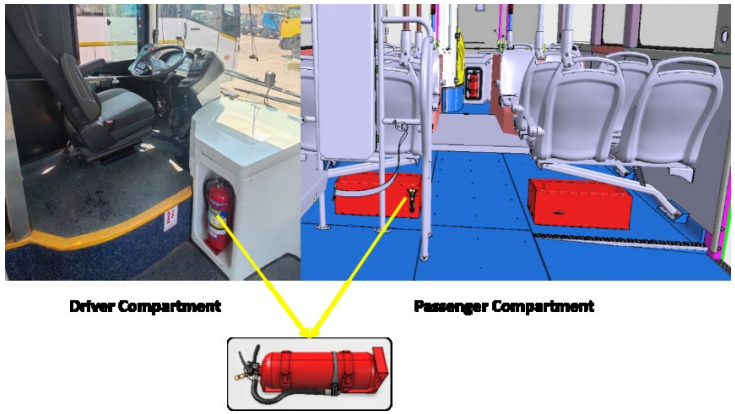
Emergency door opening switches are provided inside and outside of the bus to open the front & rear door manually by passengers in case of an emergency. Follow the instructions given near to the button to open the doors.

Better Driver and Passenger Visibility

Wide glasses are provided in your vehicle for better visibility.

Fire Extinguisher

Three fire extinguishers are provided in your vehicle to use in case of fire. The location of fire extinguisher cylinder, one is right side of the driver seat in the driver compartment and two are in passenger cabin.



First Aid Box

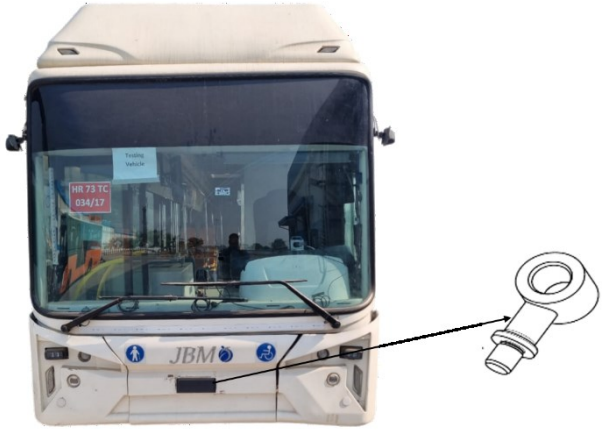
A first-aid box is provided in your vehicle and the location of the box is at the rear side of the overhead panel of driver compartment.

Service Features

This section describes the service features available in your vehicle.

Tow Hooks

A Front & Rear tow hook provisions are provided in your vehicle at the location. In case of breakdown the Front/Rear tow hook can be used to tow the vehicle.

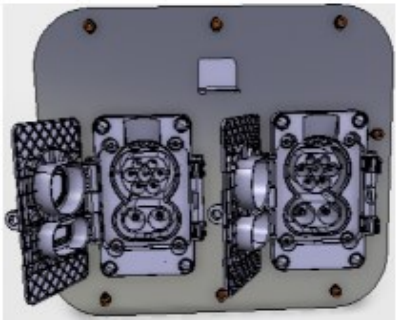


Inspection Cut Outs

Inspection doors are provided in your vehicle for the maintenance & inspection of the underbody systems and their components.

Charging Plug & Socket

To charge the vehicle, two charging sockets are provided at the rear left side of the vehicle.



Bus Charging Sockets

Wheel Chock

Wheel chocks are effective and safe for holding the vehicle on road when used properly. We have provided a pair of wheel chock with your vehicle. Use of wheel chocks provide additional safety to your vehicle.

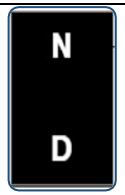
HANDLING

This section describes the service and control available for driver and passengers in your vehicle.

Instrument Panel - Switches

The following figure and table lists the switches available on the Front Instrument Panel of your vehicle.

Position	Symbol	Name	Function	Description/Function
1		Driver Lamp Switch	Switch to activate/deactivate the lights in driver compartment	Press the switch to activate/deactivate the lights in driver compartment
2		Driver Fan Switch	To activate/deactivate the fan	Press the switch to operate the fan installed in the driver compartment
3		Charging Enable + USB Switch	To activate HV battery charging & USB Switch	Press the switch up to activate HV battery charging & down to enable USB Switch
4		Front Kneeling Switch	To activate/deactivate the front Kneeling	Press the switch to activate/deactivate the front Kneeling
5		Side Kneeling Switch	To activate/deactivate the Side Kneeling	Press the switch to activate/deactivate the side Kneeling
6		Rear Kneeling Switch	To activate/deactivate the Rear Kneeling	Press the switch to activate/deactivate the rear Kneeling

Position	Symbol	Name	Function	Description/Function
7		Passenger Interior Light Switch	Switch to activate/deactivate the lights in the saloon area	Press the switch to activate/deactivate the lights in the saloon area
8		ITS Switch	Switch to activate the Intelligent Transport System	Press the switch to activate the Intelligent Transport System
9		Demister/Defroster Switch	Switch to activate the flow of hot air towards windscreen	Press the switch to activate defroster
10		HAS + Halt Brake Switch	Switch to activate/deactivate the Hill Assist System & Halt Brake	Press the switch up to activate Hill Assist System & down to Halt Brake
11		Gear: Neutral & Drive Switch	Switch to activate the bus gear to neutral or drive mode	Press the switch up to keep the bus gear in neutral mode & down to drive mode
12		Reverse Mode Switch	To activate the reverse mode.	Press the switch to move the vehicle in reverse direction.

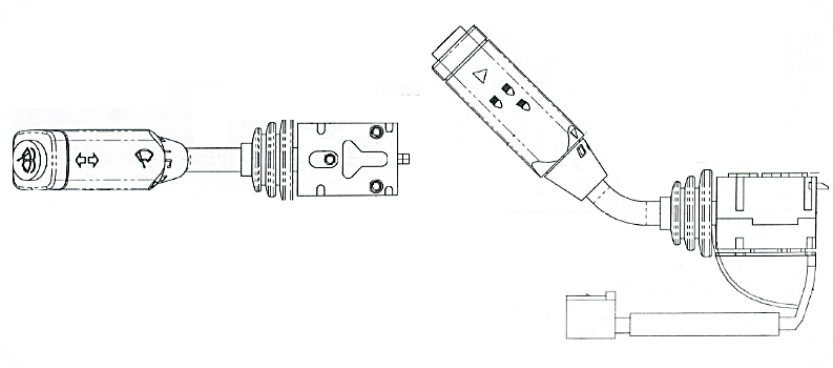
Position	Symbol	Name	Function	Description/Function
13		Emergency Switch	To activate/deactivate the emergency switch.	Press the switch to warn the passengers in case of emergency. A warning alarm will sound immediately along with flashing light mounted inside the vehicle.
14		Parking Light Switch	To activate/deactivate the parking light switch.	Press the switch to activate parking lights during parking the vehicle.
15		Head Lamp ON/OFF Switch	Switch to activate/deactivate the head Lamp ON/OFF	Press the switch to activate/deactivate the head Lamp ON/OFF
16		Hazard/Emergency Light Switch	Switch to activate emergency flashers	Press the switch to activate emergency flashers. All the direction indicator will illuminate once this switch is activated
17		Fog Lamp Switch	Switch to activate the front fog lamp	Press the switch to activate/deactivate front fog lamp
18		High Beam Switch	Switch to activate High Beam	Press the switch to activate high beam

Position	Symbol	Name	Function	Description/Function
19		Passenger Reading Lamp Switch	Switch to activate the Passenger Reading Lamp	Press the Switch to activate the Passenger Reading Lamp
20		ADAS Switch	Switch to activate the advanced driver-assistance system	Press the switch to activate the Advanced driver-assistance system
21		TV Switch	Switch to on the Television	Press the switch to on the Television
22		ESC Switch	Switch to activate the Electronic Stable Control	Press the switch to activate the Electronic Stable Control of the bus
23		ASR Switch	Switch to activate the Anti-Slip Regulation	Press the switch to activate the Anti-Slip Regulation
24		Remote Battery Cut-off (RBC) Switch	Switch to activate/deactivate 24V battery	Press the switch to activate/deactivate 24V battery.

Position	Symbol	Name	Function	Description/Function
25		Door Switch 1	Opening/Closing of Door 1	Press the switch to open the door and press again to close the door
26		HV Emergency Switch	To Switch off the HV Supply	In case of any emergency by pushing switch to switch off the HV Supply

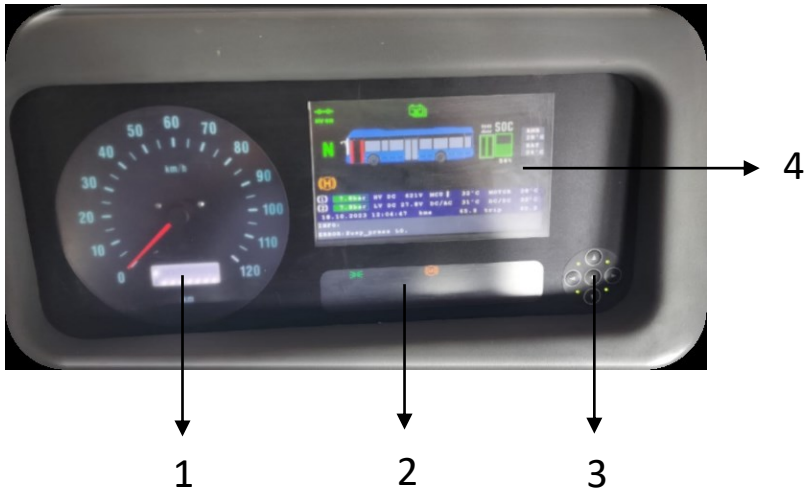
Steering Wheel Combination Switch

The following figure and table lists the function and description of the Steering Wheel Combination Switch available on the Front Instrument Panel of your vehicle.



Front Instrument Panel

The following figure illustrates the components available on the Front Instrument Panel of your vehicle. All the systems in your vehicle are functioning without fault then no message illuminates while you are driving. The following figure illustrates the information available on the display of your vehicle.



Sr. No.	Description
1	Speedometer
2	Indication/Warning Lights
3	Function Key
4	Display Screen

Front Instrument Panel - Warning and Indicator Lights

The following figure and table lists the warning and indicator lights available on the front instrument panel of your vehicle.

Position	Symbol	Color	Name	Function
1		Red	Parking Brake Light	Indicates that the parking brake is applied.
2		Red	Stop Light	Indicates that vehicle is not ready to move.
3		Green	Battery Charge	Indicates that Charging gun is connected with vehicle.
4		Green	Front Fog Lamp	Indicates that front fog lamps are on.
5		Yellow	ABS Fault Light	Indicates the fault in the anti-lock braking system (ABS).
7		Red	Brake light	Indicates that fault in vehicle braking system.
8		Green	Direction Indicator Light	Indicates that the left side direction indicators are in operation.
9		Green	Direction Indicator Light	Indicates that the right side direction indicator is in operation.
10		Blue	High Beam Light	Indicates that headlight high beam is on.

Position	Symbol	Color	Name	Function
11		Green	Low Beam Light	Indicates that headlight low beam is on.
12		Green	Parking Light indicator	Indicates that when vehicle's parking light is on.
13		Yellow	Brake pad wear indicator	Indicates that Brake pad wears out.
14		Yellow	Vehicle Control Unit	Indicates that there is fault in VCU.
15		Yellow	Control Area Network	Indicates that there is fault in CAN.
16		Yellow	Hill Start Assist	Indicates that the hill start assist system is operational.
17		Yellow	Insulation Break	Indicates the Insulation break In Vehicle.

DRIVER COMFORT

This section describes various adjustments that need to be made to assure the driver's comfort and the safety of your vehicle.

Driver Door

The following figure illustrates the driver door.

Accelerator and Brake Pedals

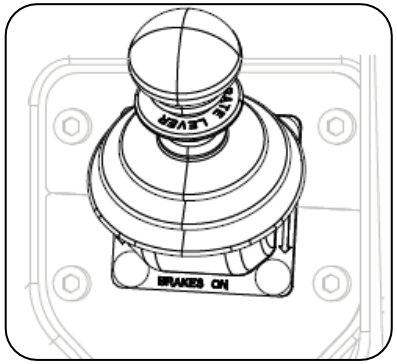
The following figure illustrates the pedals available in your vehicle.

Windshield Defroster

The vehicle is equipped with a system for windshield defrosting and heating. Driver can use this switch to remove the frost from windscreen during monsoon & cold weather.

Parking Brake

The following figure illustrates the Parking Brake Lever available in your vehicle. Before applying the parking brake, always stop the vehicle and shift the Gear Selector to 'N' position.

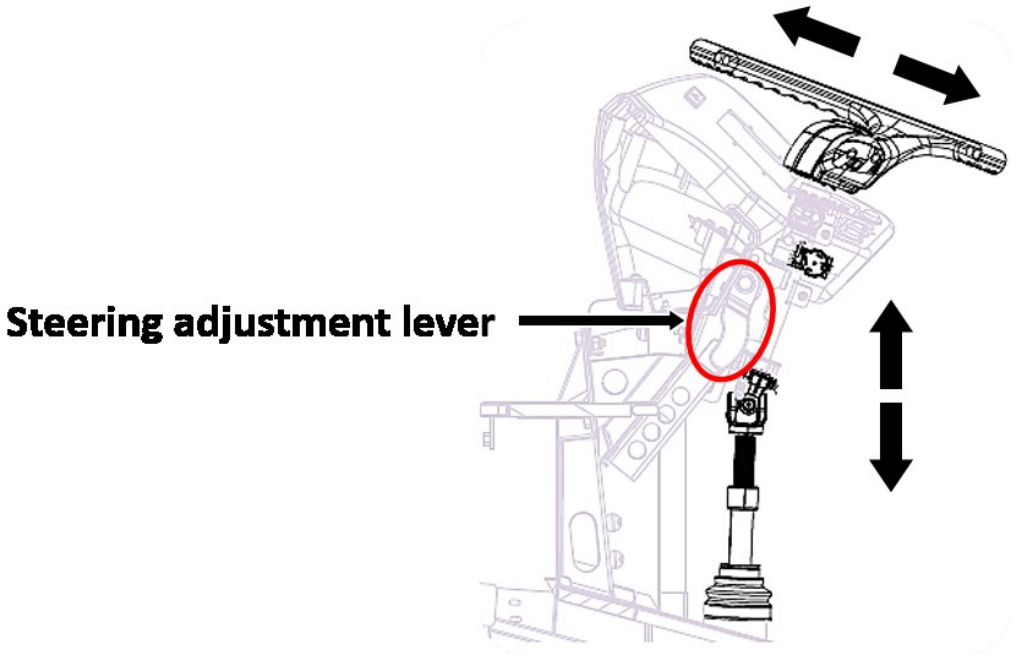


Steering Wheel Adjustment

In addition to improving your control of the vehicle, a well set steering wheel can save your life in the event of a collision. Thus, whenever you take the wheel of a bus and begin a journey, make sure that the "steering wheel" is adjusted. Never compromise the passengers' or your own safety. Pull the lever to adjust the steering UP-DOWN and FORWARD-BACK

You may adjust the steering by moving the lever located in the steering column in both forward and backward directions as well as up and down.

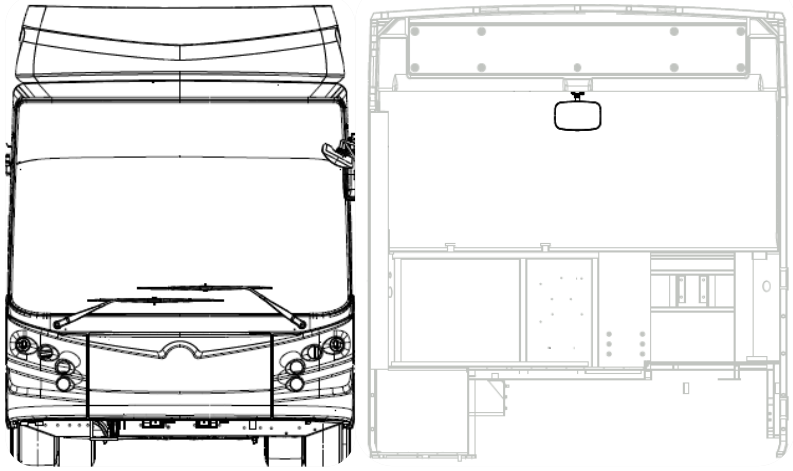
⚠	*Do not adjust the steering wheel while driving. It may cause loss of control of the steering and result in an accident. After adjustment, shake the steering wheel upward and downward to make sure it is locked firmly.*



Rear and Passenger Compartment View Mirrors

⚠	*Keep the inner and outer rear view mirrors clean, and adjust them to the optimum visual angle.* *The rear view mirrors should be well adjusted before driving.* *Do not adjust the rear view mirrors while driving. It may cause incorrect operation of the bus and result in an accident.*

Two rear view mirrors are fitted at the left and right hand side of your vehicle to view the other vehicle and objects behind and around the vehicle. One passenger area view mirror available at the left side of the driver's seat to view the passenger movement inside the bus and near rear passenger door. The following figures illustrate the rear and passenger view mirrors available in your vehicle.



⚠	*Make sure that the mirrors are correctly positioned before driving, as it enables the driver to accurately see motorists, objects and students near and in the bus.*

Driver Air Condition Control

The Air Conditioning Control Unit switched-on just after you start the vehicle and press AC switch. To change the fan speed, press the Blower Fan Speed Control Switch (6) as per requirement.

The operational panel has 6 functional keys:

1. ON/OFF Button - Switch ON/OFF the system.
2. Scroll UP Menu Key - Increase the temperature by pressing the button.
3. Scroll DOWN Menu Key - Decrease the temperature by pressing the button.
4. AUTO Button - Activate/Deactivate the auto mode. When Auto mode is selected, the system automatically switches ON cooling mode as required.
5. Fresh air/Circulation air button - Press the buttons to open/close the fresh air flaps.
6. BLOWER Button - Press the button to activate/deactivate the blower and adjust the speed by “UP” & “DOWN” buttons.
7. DISPLAY Screen - All the details such as temperature, mode etc. will be displayed ON the display screen.

Do's and Don'ts for Driver Air Condition Control

Do's

- Do operate the control panel controls gently.
- Do ensure the passenger saloon is clean to avoid frequent dust accumulation in return grill filter.
- Do ensure the cleaning of condenser in roof unit during maintenance.
- Do clean & replace return air grill filters at the prescribed service intervals.
- Do have a check on abnormal sound from compressor or roof top air conditioner, if observed any abnormal sound, contact your nearest service center.
- Do park your bus in a shaded area to avoid too much of heat absorption, which increases the cooling time and consumes more power.
- Wear safety goggles and gloves while handling refrigerant - not abiding to it may cause permanent eye injury.
- Do start your air conditioner 15 min. prior to boarding of the passenger for a comfortable ride.
- Do set your thermostat (temperature set point) between 24˚C - 27˚C for a comfortable temperature zone.

Don'ts

- Do not operate air conditioner while cleaning the bus. The dust will accumulate in the filters which will result in poor air conditioner performance.
- Do not touch/bring any components in contact with fan or other moving parts when the AC unit is in operation.
- Do not clog/short cycle the roof top unit air flow (below lower height roof/shade) while AC operates.
- Do not close the air supply louvers and air bleeders as it will cause moisture formation in air ducts & un-uniform temperature throughout the bus cabin.
- Do not spray water on the control panel or any AC units unless specified.
- Do not climb over the components in roof unit.
- Do not try to repair or tamper with AC unit's electrical/refrigerant lines & connections.

PASSENGER SERVICE

This section describes the service available for the passengers in the vehicle.

Passenger Door

Three passenger door is available in your vehicle.

The control for opening and closing of the door is available on the front right hand side of the instrument panel. Door opening indication will be displayed on the dashboard and warning sound will remain open until the doors are securely closed. Press the Door Button again to close the passenger door.

	A sensor is provided in the doors, which prevents closing of door if an obstacle is present between the doors. To close the door once more, repeat the closure command.

Reverse Intelligent System (RIS)

Overview

Reverse Intelligent System (RIS) is fitted on dashboard inside of your vehicle to view the other vehicle and objects movement behind of the vehicle.

Precautions

- Don’t disturb the factory setting of BDC switches unnecessary.
- Don’t disturb the power switch during software update or data transfer.

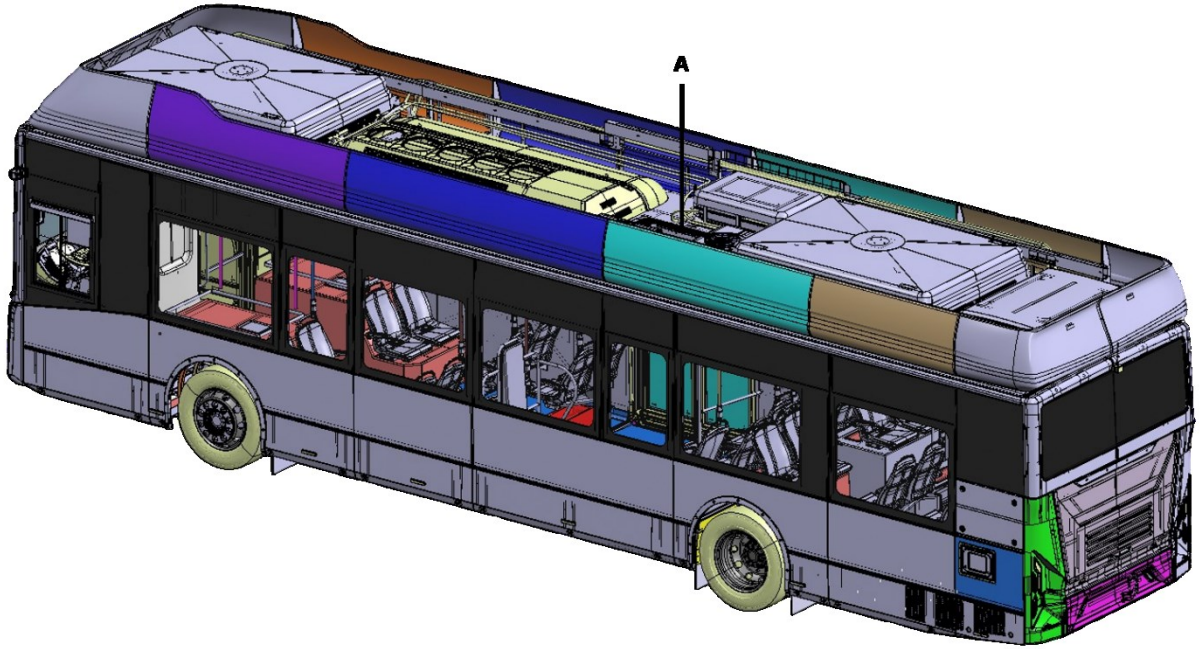
Functions

User can set parameter, preview, playback and export data via control panel (BDC).

- Local recording and video playback.
- Driving recording: provides statistics on speed, turning, brake, reverse, opening door, etc.
- Import and export of the configuration file: thumb drive import/export device parameters.
- Device upgrade: supports local upgrade and remote upgrade.

Escape Hatch

Two manually operated hatches at front (A) is installed on the roof.



	The Roof Hatch can be used as an emergency exit, since it is equipped with a release handle.

DRIVING

It is important for you to understand and be familiar with the operations, procedures, preparations and checklists that are recommended throughout this book. Knowing the vehicle is the key to gaining maximum efficiency and safety. Besides the driver, it would be helpful for the passengers to be familiar with these safety considerations and precautions, too.

⚠	*Make sure that you have read the entire Operator Service Book before you drive your vehicle and that you fully understand the systems fitted on your vehicle and how to use those safely.*

General Tips to Driver

It is the driver's responsibility to understand the complete operation of the vehicle. Failure to follow the proper procedures could affect the performance of your vehicle and/or affect the safety of the passengers. To avoid that please go through this book thoroughly.

SR. No.	SAFETY	DESCRIPTION
1	GENERAL	It is the driver's responsibility to ensure the safety and comfort of himself and for other passenger during the journey. Therefore, read this manual carefully before driving the vehicle. Driver must be familiar with all the indicators and warning lights on the instrument cluster and should know what to do if something abnormal happens.
2	FIRE HAZARD	Pay attention to any burning smell, odor etc. & get it rectified immediately. In case of a spark/burning smell, Press the battery cut off switch to OFF position and disconnect LV battery cables immediately. Keep the fire extinguisher handy.
3	FUSES	Use the fuses of correct rating for the safety of the vehicle.
4	SAFETY	Check and ensure that all the safety equipment's of the vehicle like seat belts, first aid kit, warning triangles, jack, wheel spanner, etc. are working properly and in desired place.
5	SEAT BELTS	Driver and passengers should use seat belt while driving.
6	LOADING	Do not exceed passenger capacity (seated plus standing passengers).
7	DRIVING	As a driver it's foremost responsibility to anticipate any road hazards, which could endanger the safety.
8	ALCOHOL OR DRUGS	Do not drive after consuming alcohol or drugs.
9	MOBILE	Avoid using phone while driving.
10	MIRRORS	Before driving adjust the mirror properly.
11	FATIGUE	Do not drive when fatigued. Make sure to stop and rest immediately.
12	FLUID LEVEL	Check fluid level of steering and wiper reservoir.
13	TYRES	Check & maintain recommended tyre pressure.

SR. No.	SAFETY	DESCRIPTION
14	DOWN GRADIENT DRIVING	Never drive the vehicle in neutral position during down gradient driving.
15	AC COMPRESSOR	In case AC is not being used for prolonged period mainly in winter season, put the vehicle AC ON at least once a week for 2 minutes for smooth functioning.
16	TRACTION & BATTERY COOLANT	Do not open pressurized cap of Traction coolant tank and battery coolant tank immediately after vehicle stops. Wait for coolant temperature to fall down / cool down.
17	MAINTENANCE	Always follow the recommended service and maintenance schedule to maintain the vehicle life and for smooth operation and good condition.
18	PARKING	While parking (straight surface or steep incline surface), always apply hand brake.
19	REPAIRS	While performing any repair operations (Over & Under), apply hand brake along with wheel choke and lifting jack for under body operations.
20	SERVICE BRAKES	Never drive if the air pressure is too low or if observe leakages in the brake system.
21	WASHING	While washing the vehicle care should be taken like (Not splash water directly to the HV and LV components). Water particles may damage the Electronic parts and dashboard which may lead to failure of the vehicle.
22	VEHICLE NOT IN USE	If vehicle is not used for too many days like more than 3 days, then turn OFF the manual battery cut off switch to prevent discharge of LV battery.

	***Precautions in Use of Pure Electric Vehicle (EV):*** *The high-voltage DC power generated by the vehicle power battery is very dangerous, it may cause electric shock or severe burns, serious injury or even death.* • *To avoid personal injury, please do NOT touch the orange colored high-voltage cable or its connectors.* • *Please follow the instructions indicated on warning labels attached to the high-voltage components.* • *Please do NOT disassemble or replace any high-voltage components; such as motor controller and high-voltage power distribution box.*
	***In event of an accident:*** • *To avoid personal injury, please do NOT touch any high-voltage cables, their connectors or any high-voltage component.* • *Do NOT touch any exposed electric wires.* • *In event of a vehicle fire, please extinguish it using a special fire extinguisher for electric fires.*
	*Make sure that you do not use any portable, fuel-burning (e.g., charcoal, propane, butane, wood) equipment inside your vehicle. Use of such equipment inside may readily cause fires and/or suffocation by carbon-monoxide poisoning. Further, such unauthorized use would probably invalidate your insurance policy.*

In general, there are several “common” safety precautions that should be taken every time you use your vehicle.

- Follow the checklist to do the Pre-trip Inspections.
- Record all the field failure or system issues in the field failure report and forward that to the JBM Electric.
- Always charge the vehicle to full (SOC - 100%) for better battery life.
- Do not drive bus if SOC reaches 20%. At 25% SOC, vehicle should be brought to nearest charging station. It is recommended to charge vehicle at 30% SOC to maintain battery life.
- Do not charge the vehicle with wet hands.
- Do not wash the vehicle while charging.
- Keep your vehicle tire pressure adequate, this can save your money in two ways: high efficiency and less tire wear.
- While your vehicle is moving, lock both the passenger doors to provide maximum safety for the passengers.
- Always allow extra room when turning a corner or changing lanes.

- Observe proper vehicle speed when ascending or descending hills.
- The seat belts must be used (fastened snugly with the chest and hip areas), anytime your vehicle is in motion, to provide desired protection in the event of a crash.
- In case of climbing up-hill, driver should use hand brake to avoid vehicle roll back.
- The fire extinguishers should be inspected on daily basis to assure that each extinguisher is properly charged and ready for operation.
- In the event of an emergency, be sure that everyone in your vehicle is familiar with all escape exits (doors, emergency window and escape hatch).
- Do not use the emergency window as a routine exit; this is strictly to be used for emergency purposes only. When your vehicle is parked, be sure that the emergency exits are not inadvertently blocked.
- Before jacking up the vehicle, make sure that the brakes have been applied and that the wheels remaining on the ground have been secured with wheel chocks.
- Always apply the parking brake when leaving your vehicle or it may roll and cause damage or injury.
- When leaving the vehicle, always remove the Service Key and lock your vehicle.
- Do not use the cellular phones during driving the vehicle. If you need to use cellular phone, stop your vehicle to a safe location.

High Voltage (HV) Safety Instructions

Read and Follow these safety guidelines before preforming any service and maintenance activity on High Voltage (HV) components. Non adherence to HV safety guidelines may lead to injury or death.

1. Service must be performed by trained and qualified person only.
2. Turn off the ignition switch, Battery cut off switch of 24V battery.
3. Press the emergency stop switch.
4. Remove the Manual Switch Disconnect (MSD) from HV Batter Pack, before initiating HV service or maintenance.
5. Lock out and Tag out to avoid inadvertent starting of others. Remove ignition key or LV battery cables to avoid unintended starting by others.
6. Ensure this until the HV related work get completed and HV box cover have been properly closed.
7. Wait 10 minutes after switching off the vehicle to ensure that high voltage has discharge to safe voltage level.

	• Contact with electric parts may result in serious personal injury or even death. • An electric arc that occurs at the moment of a short circuit may result in severe burns.
	• Operators shall be professional personnel, trained, qualified with relevant expertise and electrician certificate, and authorized by customer. • For operations on exposed or electrically connected metal, the tools shall be insulated. • Operators shall wear PPE which includes: arc protective clothing, arc protection mask, arc protection hood, arc protection gloves, electrically insulating shoes.

Follow all the steps mentioned in this document religiously:

Do's

- Read the user manual thoroughly before operating the electric vehicle.
- Charge the vehicle only at authorized charging stations.
- Check the vehicle dashboard for battery system status regularly.
- Park at designated charging spots and engage the parking brake during charging.
- Familiarize yourself with emergency procedures outlined in the manual.
- Store the vehicle in a dry and well-ventilated area within the recommended temperature range.
- Check the coolant level on periodically.
- Ensure storage humidity is at or below 85% Relative Humidity (RH).
- Maintain recommended battery temperatures between 20°C to 35°C.
- Keep State of Charge (SOC) 40% to 60% during storage, and charge the battery every month for optimal performance for Stored HV Battery.
- Use Personal Protective Equipment (PPE) rated for high voltage when working on HV batteries.
- Charge batteries to 100% at least once daily. Ensure SOC is above 50% before driving. Check the vehicle dashboard to confirm normal battery system status and absence of alarms.
- Before charging or discharging, check the battery cell voltage, temperature, and voltage differences on the vehicle's meter display to ensure all values are within normal ranges.
- Park the vehicle in a designated position with the parking brake activated during charging. In high temperatures, strengthen the charger and battery temperature checks.
- Disconnect the charger from the battery after charging is complete to avoid overcharging.
- Store the vehicle at ambient temperatures between -40°C and 45°C if not in use for a long time (up to 30 days). Maintain SOC at no less than 40%.
- Install charger devices under adequate shade to prevent rainwater entry into charging gun/sockets.
- Use only JBMEV recommended genuine spare parts.

Don'ts

- Ignore warning signals on the dashboard; address issues promptly.
- Attempt to charge the vehicle in adverse weather conditions without precautions.
- Neglect routine maintenance or overlook abnormalities during charging.
- Attempt to modify the vehicle or the battery system without authorization.
- Attempt to handle emergency situations without proper knowledge or protective equipment.
- Don't Store the battery in extremely cold or high-temperature locations to ensure optimal battery life.
- Don't Store the battery beyond the recommended SOC. Ensure the Manual Service Disconnect (MSD) is pulled out before storage. (Cover the MSD)
- Don't Store batteries in conditions exceeding 85% RH, as it will decrease insulation effectiveness despite IP68 insulation standards.
- Don’t Store the vehicle in extreme temperatures or environments.
- Don’t Energize the HV system during manufacturing stages.
- Don't Step on the HV battery lid to avoid damage.
- Don't Use counterfeit spares and consumables as they void the warranty.
- Don't Interchange or change the battery location without JBMEV authorization.
- Don't Use the vehicle if SOC is below 15%. Arrange charging at 30% SOC.
- Don't Use the “Manual Charging” function. Non-professionals should not approach, touch the charging cable and plug, or operate the charging device to ensure safety.
- Don't continue charging if there is any abnormality in the charger. Identify the cause and prohibit operation if necessary.
- Don't Store the vehicle in high humidity, confined spaces, or direct sunlight.
- Don't drag or tow the vehicle with the battery system power supply circuit connected.
- Don't allow non-professionals to handle the charging cable and plug or operate the charging device.

Do's & Don'ts for Water Wading in EV Bus

Do's

- **Check the Wading Depth:** Know your vehicle's maximum wading depth (Equals to Ground Clearance), which is the depth of water it can safely cross without taking on water.
- **Recce the Crossing:** Walk through the water/look for the passing vehicle/people on the water first to check the depth and look for hidden obstacles.
- **Maintain Low & Steady Speed:** Maintain a low & steady speed and avoid creating a bow wave to avoid splashing water into the HV components.
- **Once vehicle stops in the water logged area:** Driver to inform maintenance team & possibly take the photographs of the vehicle instrument cluster (both main page & diagnostic page) and share with the maintenance team in respective depot/region.

Don'ts

- **Avoid Stopping:** Do not stop in the middle of the water, as this can increase the risk of water entering the vehicle. In case, Vehicle stopped in between kindly do not attempt to crank the vehicle, contact authorised personnel.
- **Don't Forget to Dry Brakes:** After exiting the water, gently apply the brakes to dry them out and ensure they function properly.
- **Don't Rush:** Avoid driving too fast, as this can create waves that may flood to the HV components.
- **Avoid Deep Water:** Do not attempt to cross water deeper than your vehicle's specified wading depth (Equals to Ground Clearance).
- **Don't Ignore Warning Lights:** Pay attention to any warning lights on the dashboard that may indicate water ingress.

Alcohol interlock device, How to use:

1. Ensure the LV battery is ON.
2. Before starting the vehicle, check that the alcohol interlock device is active mode and ready for use.
3. Do the breath test.
4. Blow smoothly into the mouth pipe of the alcohol interlock.
5. Wait for the device to analyze your breath sample.
6. Check the Result.

   A. If your Blood Alcohol Concentration (BAC) is below the legal limit, the system will allow the vehicle to start.

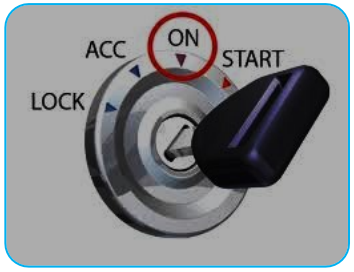
   B. If your BAC is above the limit, the system will prevent the engine from starting.

⚠	*Do not attempt to ON the HV battery before breath test.*

📎	*Keep the mouthpiece clean and maintain the Hygiene.*

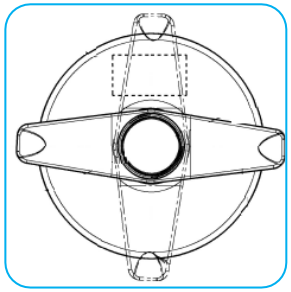
Ignition Switch and Key

The ignition switch has four positions: “LOCK”, “ACC”, “ON” and “START”. In the “LOCK” position, the key slot is vertical. The key can be inserted and removed only in this position. Move the key to clockwise direction to the “START” position to start the motor. All low voltage electrical systems are operable in the “ON” position.



Services Batteries Isolation Lever

This switch is used while doing maintenance of your vehicle. The battery cut-off switch provided in the vehicle to disconnect the LV battery from main bus is nearby driver seat.



OFF POSITION

	If you are not able to disconnect the batteries from battery master switch in the cockpit, You can disconnect the batteries by using this lever.

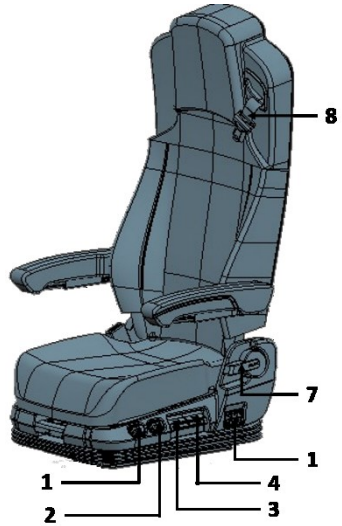
Turn the lever in the direction of the arrow to switch on the power supply. All the components will be in operation when the lever is in ON position.

	After parking the vehicle, always turn the battery isolation lever in off position.
	Customer is responsible to return the used batteries to the depot or deliver at designated collection centers due to hazards of lead to prevent damage to the environment.

Driver Seat and Control Adjustments

The driver should adjust the driver's seat, seat belt, steering & rear-view mirrors for the driver's comfort and safety. The seat belt must be fastened snugly with the chest and hip areas.

⚠	*Make sure that you adjust the seat when vehicle is stationary and parking brake is applied.*
⚠	*Make sure that lever is properly locked after the adjustment of the seat and before starting the vehicle.*
⚠	*Do not adjust the seat while driving. It may cause loss of control and result in an accident.*



Sr. No.	Features	Sr. No.	Features
1	Height Adjustment Button	5	Shock absorber adjustment Handle
2	Air ON-OFF Button	6	Lumbar Button
3	Reclining Adjustment Lever	7	Backrest Reclining Handle
4	Seat cushion Tilt adjustment Handle	8	Seat Beat

Seat Belt Adjustment

Before starting your vehicle always wear the seat belt for your own safety. To wear the seat belt, pull the seat belt and insert the anchor into buckle. Click sound confirms the locking of the anchor and buckle. To release the seat belt, press the red button on the buckle and anchor will automatically unlock & come out to its original position.

Wheels and Tires

Your vehicle is equipped with tires having good road holding characteristics and offer good handling on dry and wet surfaces. During replacement of tires, make sure that the new tires are of the same size designation, type and preferably from the same manufacturer, on all four wheels. Otherwise there is a risk of altering the vehicle's road holding and handling characteristics.

Tire rotation

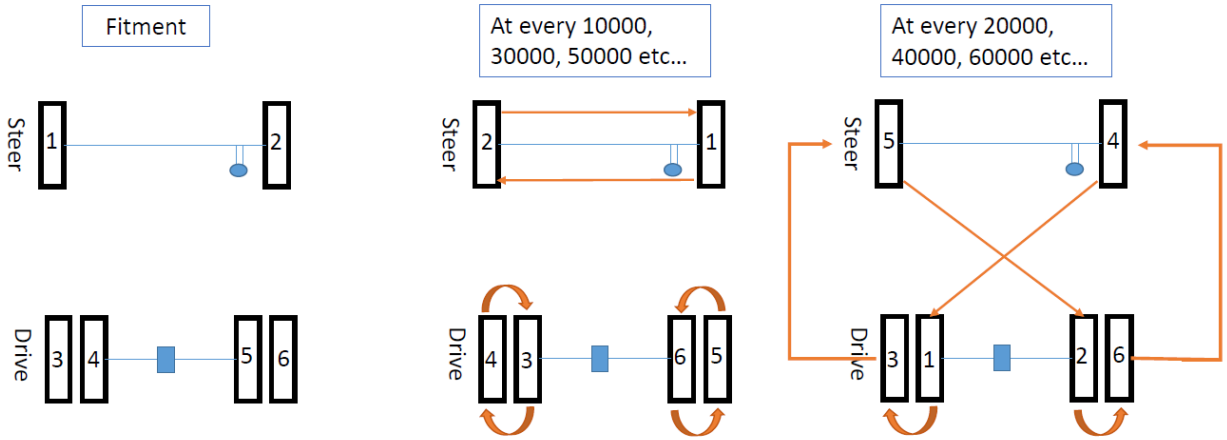
Your vehicle requires tire rotation after 10000 km run. Tire wear is affected by a number of factors such as tire inflation, ambient temperature, driving style, wheel alignment & balancing etc. To improve the tire economy follows the following instructions:

- Maintain correct tire pressure.
- Drive smoothly; avoid fast starts, hard braking and tire screeching.
- Correct front wheel alignment is very important. Unbalanced wheels impair tire economy and driving comfort.
- Tires must maintain the same direction of rotation throughout their lifetime.
- Hitting curbs or potholes can damage the tires and/or wheels permanently.
- Incorrectly mounted tires impair the vehicle's braking properties and ability to force aside rain, snow and slush.

Interval: Alignment must be done at every 10000 KM

Inspection: Do a visual inspection, if uneven wear, spotty wear found on shoulder, tyre side change on rim, remount the tyre.

Refer to the below figure for the tyre rotation and alignment.



Service Brake Systems

By pressing the service brake pedal beyond the initial short stroke that controls the slowing down, the braking effect gets integrated with the pneumatic system of the brakes for the axle. In case of pipes breakage, a reduced braking action is assured.

⚠	*Drive the vehicle slowly, if brakes are wet. Dry the brakes by applying them several times, while vehicle is in motion.*

Parking Brake System

Whenever you apply the parking brake for locking of the rear wheels, the Parking Brake Light gets switched-on and will be illuminated on the instrument cluster.

⚠	*If the Parking Brake Light remains on with the parking brake released, a brake system malfunction is indicated. Get the brake system serviced by the JBM Authorized Technician.*
⚠	*Do not drive the vehicle with the parking brakes caged. If the vehicle is driven with the parking brakes caged, there would be no means of stopping the vehicle if a complete loss of air pressure occurred. This could result in serious personal injury or vehicle damage.*

PRE-TRIP INSPECTIONS & PROCEDURES

This section describes the inspection required before you drive your vehicle. It is the driver's responsibility to perform an inspection, and ensure the complete road-worthiness of a vehicle, before driving the vehicle. Use the checklists attached with this book to ensure that your vehicle components are in good working condition. Careful inspections will eliminate the risk of breakdown before the start of the trip.

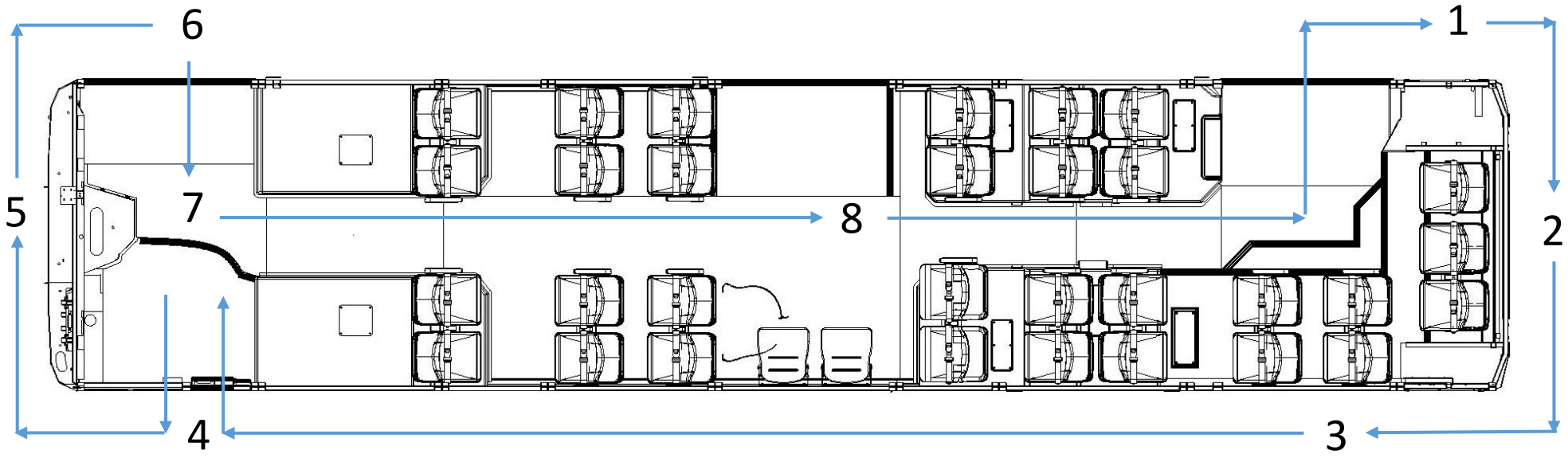
⚠	*If any system or component does not pass inspection, it must be corrected before operating the vehicle. Whenever equipment requires adjustment, replacement, and/or repair, contact JBM Technician.*

Pre-trip Checklist

This section describes the inspection to be done before you drive your vehicle. Before you start the inspection clean your vehicle properly.

⚠	*Make sure that you apply the parking brake and chock the tires before performing any checks.*

The following figure illustrates the checklist for Pre-trip inspection to be done on your vehicle.



Pre-Trip Inspection Check Points for Driver		
Driver Name		**Bus Number**
Check Points	**Details**	**Observation**
1	Start from RH side LV Battery location. Use proper lock/unlock key to open the battery flap. Turn main battery cut-off switch on. Use proper Lock/unlock key to close the battery Flap.	
	Walking at the right side of the bus Visually Check, Tire: Pressure, Stone/mails, etc. stuck in between tire grips, Cut burst, or any damage. Glasses & panels for any external scratches or damages.	
2	Check all the lamps, reverse camera & rear glass.	
	Open the rear compartment.	
	Check any leakage & level of coolant.	
	Check emergency HV-Cut Off switch. DO NOT press the switch.	
3	Open vehicle charging flap and check HV charging plug to ensure proper fitting of rubber boot.	
4	Open driver door checks in the driver seat. Sit on the driver's seat and check the seat belt for its proper functioning. Adjust the seat as per your driving comfort.	
	Check front and rear axle pressure, Service Brake and Parking Brake operation (Keep Parking bake applied during pre-inspections).	
	Check both side ORVM & IRVM (Adjust if required).	
	Switch on the remote battery cut-off (RBC) button. Turn the key to the 'ON' position. All telltales will illuminate simultaneously and turn OFF after few seconds.	
	Check any tale remains ON/Blinking on the instrument cluster If any tail lamp remains ON/Blinks or alarm sound continues it may be an indication of a major vehicle fault, therefore fault must be rectified and problem get resolved before the start of a vehicle trip.	
	Check for smooth functioning (Opening/Closing) of Both front and rear doors, Push Windshield washer and check Wiper operation (Don't use wiper If washer nozzles don't spray water, Indicates there may be no water in washer tank).	

Pre-Trip Inspection Check Points for Driver		
Driver Name		**Bus Number**
Check Points	**Details**	**Observation**
	Check sufficient battery SOC % available to complete the trip.	
	Check interior & exterior lights, and dashboard switches for proper functionality. Switch ON destination boards Head Lamp Fog Lamp and hazard Switch.	
	Turn the key to the “Start” position. Switch “ON” the Air Conditioner.	
5	Step out from the driver's door and move towards the vehicle's front side.	
	Check any underbody leakage.	
	Check any unreported panel damage.	
	Check front Wheels and Tyres for any physical damage.	
	Visually check the destination boards and all the lamps.	
	Check wiper washer tank. If found empty, fill it.	
6	Press the emergency door button and enter the bus through front door.	
7	Check First Aid Box and fire extinguisher.	
	Walk through front to rear side.	
8	Check for stickers, hammers, hand rails, roof panels, fire extinguisher, passenger seats etc. are in place & required warning signs and passenger.	
	Check all interior lamps.	
	Push the emergency exit switch, open the rear door & come out of the vehicle. Check under the vehicle for leakage for coolant if any drop observed open respective panel and confirm the cause of leakage and inform duty supervisor.	
	Finally, everything was found OK now Sit on the driver seat, fasten the seat belt. Press brake pedal, release the parking brake, gently press “D” (Forward drive) switch to engage forward drive now slowly release the brake pedal. The vehicle starts moving forward now press the accelerator to increase the vehicle speed as you desire. Apply brake when required to slow down /stop the vehicle.	

STARTING, STOPPING & CHARGING

The correct driving method can not only extend the life of the vehicle, improve economic efficiency, but also ensure the safety of driving. Driving a pure electric bus requires not only daily inspections, but also the following steps.

	*Before starting the vehicle, read other chapters in this book for detailed information on how to read the instruments and operate the controls.*
	*Make sure that you do not leave the vehicle unattended with key in barrel and Ignition On position.*

Starting Procedure

	*Make sure that you do the walk around inspection before starting the vehicle.*

1. Disengage the charging gun from the vehicle and close the charging port cover properly.
2. Switch on remote battery cut-off (RBC) button. Then, turn the key to the 'ON' position. Let the battery (low voltage) of the vehicle to power all the components and make sure that no fault light is illuminating on the instrument panel. If any fault light illuminates or alarm sound, fault must be rectified and resolved before driving the vehicle.
3. Check the SOC (State of Charge) value displayed on the display screen. If SOC is lower than 20%, charge the vehicle in time to prevent the battery pack from being unable to run to the destination due to insufficient charge.
4. Check the air pressure values I and II displayed on the display screen. If the air pressure is low, wait for the air pump to work until the pressure on both sides is greater than 6 bar.
5. Turn the key switch to the 'Start' position, hold it for one second, release it and return to the 'ON' position. Wait for the meter to display 'Ready'.
6. Press the foot brake and release the parking brake.
7. Select the 'D' from gear selector to drive the vehicle in forward direction and 'R' to drive the vehicle in reverse direction.
8. Release the foot brake and accelerate progressively to run the vehicle.

Stopping Procedure

	*Make sure to put wheel chocks on the downhill direction of the wheel in case vehicle is stopped on the slope to prevent the vehicle from rolling.*
	*In case of parking the vehicle for a long time, make sure there is no fault indication on the display screen.*

1. Press the foot brake.
2. Shift the gear selector to ‘N’ position.
3. Apply the parking brake and release the foot brake.
4. Make sure that all the electrical equipment’s are turned off. Turn the key to the ‘OFF’ position and pull out the key.
5. Switch off the remote battery cut-off switch.
6. Disconnect the low voltage battery main switch from battery compartment.

Charging Procedure

1. **Arrival at Charging Station:**
   - Ensure that the vehicle is correctly positioned at the charging station.
   - Apply hand brake and turn the key to the 'OFF' position.
   - Use wheel choke at rear/front wheel to avoid any unintentional movement of the vehicle.
2. **Pre-Charging Maintenance:**
   - Daily Cleaning: Use an air blower to clean the vehicle's charging sockets before connecting to the charger.
   - Weekly Cleaning: Use an IP solution to clean the charging sockets once a week.
3. **Connecting the Charger:**
   - Open the vehicle's charging socket flap carefully and remove the rubber boot.
   - Retrieve the charging gun from the charger unit.
   - Insert the charging gun securely into the vehicle's charging socket.
4. **Starting the Charging:**
   - Initiate the charging process by following the standard procedure on the charging unit. Confirm that charging has started as indicated by the charger's display.
   - Make sure charging output current is consistently delivering constant current. If you notice that current is fluctuating consistently, please contact charger representative.
5. **Completion of Charging:**
   - Once charging is complete, disconnect the charging gun from the vehicle's socket.
   - Return the charging gun to its stand on the charger unit.
   - Keep rubber boot on charging point, lock the port properly and remove wheel choke.
6. **Post-Charging Maintenance:**
   - Close and secure the vehicle's charging socket flap.
   - Allow a minimum 5-10 minutes rest period before starting the charging process for another vehicle on the same charger.
   - Weekly Cleaning: Clean the charger unit with a blower to remove dust.

Do's and Don'ts for Charging

Do's

- **Charger Door:** Ensure that the charger door is always closed and locked.
- **Gun Placement:** Place the charging gun properly on the gun stand when not in use.
- **Press Button:** Ensure the gun press button is fully pressed to establish a secure connection.
- **Safe Distance:** Maintain a safe distance between the charger and the EV to prevent accidental damage.
- **Power Off:** Always ensure that the charger's power is off when performing any maintenance or work inside the charger. Only Supplier certified engineers should perform these tasks.
- **Report Issues:** Immediately report any operational issues or malfunctions to customer care.
- **Vehicle Flap:** Open the vehicle's charging flap gently.
- **Socket Cover:** Remove the socket cover carefully to facilitate charging and place it back on the charging sockets after charging is complete.

Don'ts

- **Socket Cleaning:** Do not use finger to clean or check the vehicle's charging sockets. Use appropriate tools and methods.
- **Touch Screen:** Do not touch the screen with objects or sharp edges to prevent damage.
- **Gun Placement:** Do not place the charging gun on the floor as it may cause damage or contamination.
- **Forceful Operation:** Avoid operating the charging gun forcefully as it can damage the equipment.
- **Cable Handling:** Do not drive over the charging cable to prevent damage.
- **Unauthorized Access:** Do not allow unauthorized personnel to operate the EV charger.
- **Socket Cover Handling:** Avoid forcing the socket cover or mishandling it, as this can cause damage.

Required:

1. **Isopropyl Alcohol (IPA):**

An Isopropyl alcohol (IPA) is a compound that is often used for cleaning dust from electronics because it is colorless and highly evaporable.

2. **Cotton Ear buds:**
   Ear buds are used to clean the dust in Inlet using IPA solution.

⚠	*Before performing the charging inlet cleaning procedure make sure that charging Inlet is not connected to the charging station and there is no current flow.*

⚠	*Do not immerse the charging inlet into a liquid and it is forbidden to use corrosive cleaners, water spray or spray cleaners.*

Charging inlet cleaning interval:

Clean the charging inlet at least once a month and make sure that charging inlet surface is free from dust and contamination.

Clean the Charging inlet in which the dust is accumulated with IP solution and Cotton buds. At least once a month, regularly check the charging inlet for damage and contamination.

Use an Isopropyl Alcohol (IPA) to clean the charging inlet.

Step 1: Take the IPA solution.

Step 2: Bore the IPA in a little container.

Step 3: Dip the cotton ear buds in the IPA which is in a container.

Step 4: Clean the inlet using the ear bud which is dipped in IPA solution.

Before	After
	
Inlet in dust condition	Inlet in clean condition after the dust are cleaned using IPA solution with Ear Bud

Make sure that the Inlet is clean after cleaning with IPA solution .During cleaning the IPA solution should not come in contact with the Terminals. After Charging the Inlet should be closed with HVCOCBLID. It will avoid the accumulation of the dust in the Charging inlet.

WARNING & SAFETY FEATURES

This section describes the warning and safety action need to be done in case of an emergency.

Emergency Opening of Passengers Door

The passenger doors are provided with Emergency Door Opening switches inside and outside of your vehicle. The external switches are round in shape and secured with the rubber cover. The internal switch is round in shape and is secured with a rectangular plastic cover. You can reset the operation of the passenger door by pressing the switches again in the cockpit.

The following steps describe how to open doors from inside:

1. Open the cover of the switch and press the Emergency Door Opening switch mounted on the upper-left side of passenger door.
2. Pull the door leafs.

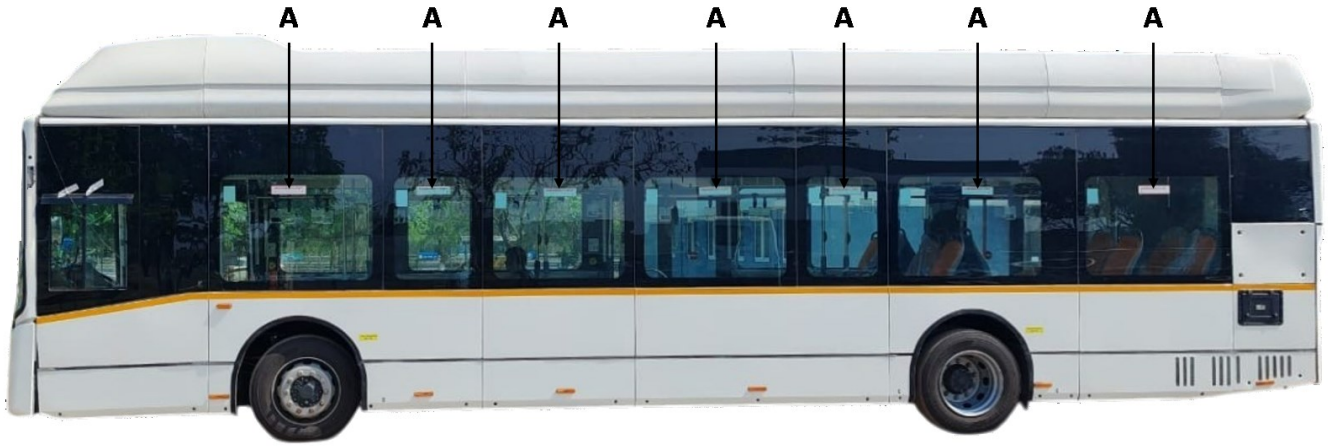
The following steps describe how to open doors from outside:

1. Press the Emergency Door Opening switch of the door from outside mounted on the right side of passenger doors.
2. Push the door leafs.

	To reinstate the correct operation of the door system, press Open/Close Button available in the cockpit.

Emergency Exit

The Front Passenger door, One Roof Hatch, Seven Emergency windows (shown in below figure A) acts as emergency exits in your bus.



⚠	*Make sure that before each trip you check the operation of the emergency exits. Someone could be seriously injured and/or killed if the emergency exits operation failed and they were unable to escape the bus during an emergency.*
📎	*Emergency windows are tagged with the "EMERGENCY EXIT" stickers. Use the hammer provided near the window to break the glass.*
📎	*Clear instructions to open the front roof hatch are clearly displayed on the front roof hatch cover.*

Emergency HV Cut-Off Switch

In case of any emergency by pushing below shown switches to switch off the HV Supply.

Charging the battery

When the vehicle is running, it is necessary to pay attention to the SOC value displayed on the display screen in real time. Do not drive the bus if SOC reaches 20%. At 25% SOC, vehicle should be brought to nearest charging station. It is recommended to charge vehicle at 30% SOC to maintain battery life.

	*Before storing the battery, make sure that the protective cover above the battery case is installed and tightened without damage. Check that the positive and negative terminals of the battery box have been wrapped with high-voltage insulation cap or other insulating materials to ensure that no metal parts are exposed to avoid short circuits.* *The battery must not be inverted or placed to avoid mechanical shock or heavy pressure. The battery should have a special fixture, placed in an environment with temperature and humidity and smoke detection.*

Do's

- Ensure batteries are removed from devices and kept segregated, before further material recovery.
- Approach a specialist to remove batteries if they cannot easily be separated and make sure the specialist processing facility has appropriate permits.
- Insulate the battery terminals or wires to prevent short circuit.

Don'ts

- Dispose of li-ion batteries with 'regular' waste.
- Crush, puncture, throw or do anything to the batteries that might result in electrodes touching and short-circuiting,
- Mix damaged and non-damaged batteries.
- Place large numbers of batteries together without proper segregation, as this will increase the risk of a fire hazard.
- Place batteries, or products containing batteries, in any process that is not specifically designed to accommodate batteries.
- Store discarded li-ion batteries inside as these have a high risk of short-circuiting and catching fire.

Wheel Chocks

Wheel chocks are effective and safe for holding the vehicle when used properly. We have provided a pair of wheel chock with your vehicle. Wheel chocks must be used in pairs, positioned downhill firmly against the tire and below the vehicle's center of gravity. This could mean chocking in front of the front wheels if the vehicle is disabled while traveling down a grade or chocking the back of the rear wheels if the vehicle is disabled while traveling up a grade. This could also mean chocking the front and back of one wheel if the direction of the grade cannot be determined.

Before doing maintenance on the vehicle at road side, positioned the wheel chocks firmly and squarely against the canter of the tire tread. Improper positioning decreases the wheel chock's effectiveness. Refer the following figure to determine the correct positioning of the wheel chock.

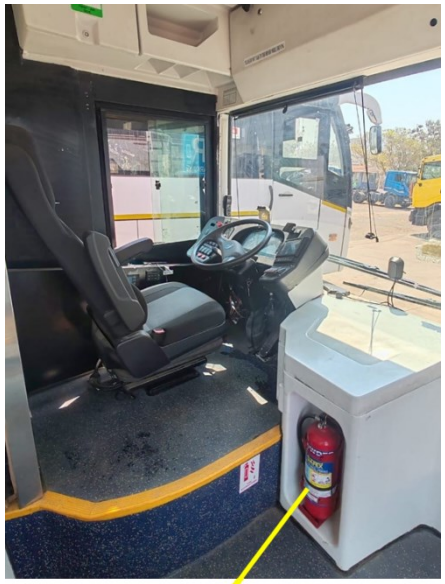
Correct Usage of wheel chocks	
	
Place wheel chocks in the center square to tyre	Position wheel chocks snuggly against tyre tread

Wheel chocks require regular visual inspection for cracking, chipping or other deterioration signaling the need for replacement; however, they require little or no maintenance.

Fire Extinguishers

The vehicle is equipped with one fire extinguisher, which are rated for class A, B and class C (for example: Electrical) services. One of them is located on the floor, beside of the driver's seat. Follow the instructions given on the fire extinguisher to use them.

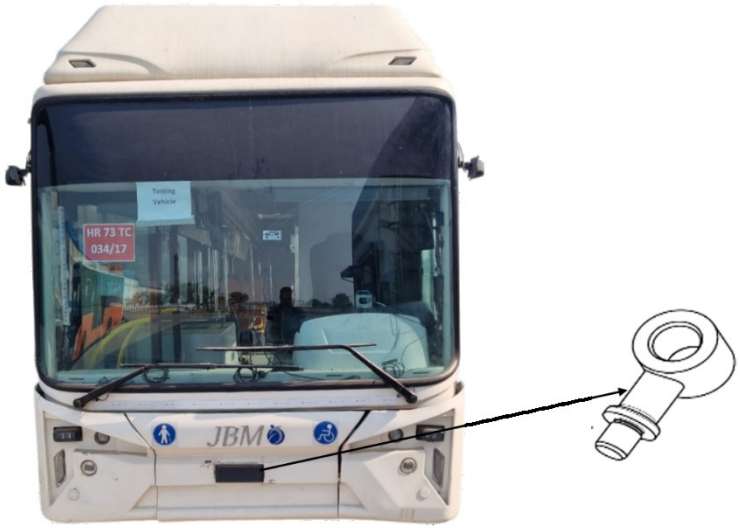
	*Make sure that you check the extinguisher's reliability and its state of charge on daily basis. Also, check the maintenance expiry date marked on the cylinder.*
	*Make sure that you do not test a fire extinguisher by partially discharging it. This will cause a loss of pressure and may lodge some fire-retardant materials in the valve mechanism and cause the extinguisher to continue to vent slowly down to zero pressure.*



Driver Compartment

Vehicle Towing

Tow hook provision is provided in your vehicle at front and rear. In case of breakdown the Front/Rear tow hook can be used to tow the vehicle.



⚠	*Make sure that you never lift the vehicle with the towing bar. If you do have to lift the vehicle, use a special towing beam.*
⚠	*Make sure that you switch-on the hazard light before towing.*
⚠	*Always chock front and back of at least one wheel to prevent the vehicle from rolling while connecting the towing rod.*
⚠	*Make sure that you obey the State and Local Laws of towing a vehicle.*
⚠	*At the time of towing of the vehicle, propeller shaft must be dismantled from the bus.*

The following steps describe how you can tow your vehicle.

1. Go inside the vehicle and apply the parking brake.
2. Open the tow hook access cover and place it inside the vehicle at safer location.
3. Connect the tow bar with the tow hook.
4. Back the tow truck towards the rear of the vehicle.
5. Connect the tow bar and lock it properly.
6. Remove the chocks and release the parking brake.
7. Set the gear selector on “N” position and tow the vehicle to the nearest JBM Authorized service center.

Hazard Lights

Hazard lights must be switched-on in case vehicle is stopped due to an emergency or under anomalous conditions. Press the Emergency Flashers Switch to switch-on the hazard lights. Both the direction indicator lights will blink in case the emergency flasher switch is pressed.

When Hazard lights are switched-on, the Direction Indicators Light on the instrument panel will blink.

Display Messages

The Multiplex display in the center of the dashboard presents the driver with necessary information. The information that is available depends on whether the vehicle is in operation or stationary. The display gives the vehicle fault code if there is any fault in the vehicle.

Reverse Parking Assisted System (RPAS)

Parking sensors are proximity sensors for road vehicles designed to alert the driver of obstacles while parking.

- To warn the driver by showing the distance and buzzer about the huddles in proximity.
- Activated automatically for reverse and parking when reverse mode is selected in shift selector.

CLEANING THE VEHICLE

When cleaning the vehicle, avoid contact of high voltage components directly with water. All orange lines in the vehicle are high voltage harnesses which should be touched by authorized personal only.

Exterior Cleaning

- When washing the vehicle manually, you should drench the dirt and then rinse with large amount of water. Wash the vehicle with a soft sponge or glove. Wash the vehicle from the top to down from the roof. Use Shampoo only in the case of heavy dirt with insect residue, tar, bird droppings, etc.
- For washing wheels and vehicle thresholds use a different sponge.
- Make sure you do not clean the battery and other electrical components with high pressure cleaner.
- Optimal angle of the stream of water in relation to the surface to be cleaned is 45°. Spraying water at this angle ensures the most efficient pressure on the surface and the most removal of the pollutants.
- Do not use compact or special jet nozzles or rotary nozzles for peeling dirt.
- Water for pressure washing should not be warmer than 60°C.
- Do not clean the joints at the perpendicular shafts straight stream.
- Make sure water does not enter electric air pump through intake pipe and do not directly spray onto radiator grill with water.

Interior Cleaning

- The interior of the vehicle is made of various materials; these may require different cleaning agents.
- Internal washing of the vehicle is not recommended.
- To clean the railing, a soft cloth or sponge dampened with water is enough. Another way is to remove dirt using damp microfiber cloth.
- Due to the possibility of delamination or discoloration of the fabric, the body and top can be cleaned and maintained with special preservatives for aluminum and plastics artificial.
- The liner and side walls must be cleaned in general cleanliness measures. Wherever possible, it is recommended to use electric floor cleaning machines. For washing the remaining hard-accessible surface you can use mope. There is still a layer on the floor covering protective coating that protects the non-slip lining and provides increased resistance on the dirt.

APPROVED LUBRICANTS & COOLANTS

This section describes the list of lubrication oil, grease and coolants to be used in your vehicle.

SR. No.	Lubricant	Grade/Specification	Quantity
1	Coolant (Traction Cooling System)	Heavy Duty Nitrite Free Extended Life 50/50 Antifreeze Coolant	16 Ltr
2	Coolant (Battery Cooling System)	Heavy Duty Nitrite Free Extended Life 50/50 Antifreeze Coolant	49.8 Ltr
3	Power Steering Oil	Castrol Transmax ATF Dex/Merc	7.5 Ltr
4	Rear Axle Oil	AXLE OIL SAE 75W-85	17 Ltr
5	Front & Rear Axle Grease	Lithium based grease	AR
6	Air Compressor Oil	SAE 10W40	2000 ml
7	AC Compressor Oil	FV68S or Equivalent	1900 ml
8	Refrigerant	R410a	8 Kg
9	Front windscreen washer	Distilled Water mixed with 30ml Degreasing Shampoo	3 Ltr

TORQUE VALUES

This section describes the tightening torque required on the fasteners of various joining parts in your vehicle.

	*Make sure that torque value does not exceeding the 3/4 value of the torque wrench capacity.*

SR. No.	Aggregate	Part Description	Tightening (Nm)
1	Front Axle with suspension	Suspender mounting bolt torque on both ends & hub bearing lock nut	275 ± 25 Nm
		Torque on upper arm and lower arm mounting bolts	370 ± 20 Nm
		Torque on lower and upper rod omega clamp	130 ± 10 Nm
		Torque on upper & lower bolt of front shock absorber	90 Nm
		Torque on nut of front air bellow	70~80 Nm
		Torque on ARB nylon bushing	150 ± 20Nm
		Torque on LH & RH levelling valve mounting bolt	25 Nm
		Torque on removed bellow bracket bolt	540 ± 20 Nm
		Torque on slotted nut for tie rod installation	200 Nm
		Torque on brake calliper bolts	600 Nm
		Torque on brake chamber bolts	165 Nm
		Torque on hub cover sleeve S65	140 Nm
2	Rear Axle with suspension	Torque on brake chamber	180 ± 10 Nm
		Torqueing of drain plug on oil filling hole	80 ± 10 Nm
		Torque on upper & lower radius rod	370 ± 20 Nm
		Torque on lower and upper rod omega clamp	130 ± 10 Nm
		Torque on cow horn mounting bolts	900 Nm
		Torque on cow horn mounting bolt head	825 ± 25 Nm
		Torque on upper & lower mounting of shock absorber	90 Nm
		Torque on upper & lower air bellow mounting	70-80 Nm
		Torque on suspender top & bottom mounting	275 ± 25Nm
		Torque on stabilizer bar bush mounting bracket	170 ± 10 Nm

SR. No.	Aggregate	Part Description	Tightening (Nm)
3	Wheels & Tyres	Front/Rear wheel nut tightening torque	475 ± 20 Nm
4	Power Steering System	Torque on GB mounting on steering cradle torque	460 Nm
		Torque on drop arm mounting	580 Nm
		Drag link ball joint torqueing with cotter pin locking	250-260 Nm
		SGB & Steering shaft connection mounting bolt torqueing	50-55 Nm
		Steering shaft & Steering column connection mounting bolt torque	25-30 Nm
		Steering wheel mounting bolt torqueing	70-80 Nm
		Drag link omega clamp tightening	70-80 Nm
		Steering motor cradle mounting bolt torqueing	70 Nm
		Hose connection fitting torqueing on gear box end	50 Nm
		Connection fitting torqueing on Steering gear box	75 Nm
		Connection fitting torqueing on Steering Motor end suction hose	100 Nm
		Hose connection fitting torqueing on Steering Motor end suction hose	160 Nm
		Connection fitting torqueing on Steering Motor end pressure	50 Nm
		Steering pipe Interconnection fitting torque	50 Nm
5	HV Battery	Tightening on battery housing pin brackets	147 Nm
		Tighten on roller mounting bolt	43 Nm
		HV Battery mounting bolt torqueing	70 Nm
		HV Battery cradle mounting bolt torqueing	180-200 Nm
6	Pneumatic System	Compressor mounting bolt torqueing	27 Nm
		1.8 Ltrs air tank mounting bolt	27 Nm
		5 Ltrs dryer air tank mounting bolt torqueing	27 Nm
		QSPV SA mounting bolt torqueing	27 Nm
		Air dryer SA mounting bolt torqueing	122 Nm
		GHCV self-return sub assy. CNG mounting bolt torqueing	10.5 Nm
		Complete R14 relay valve CNG mounting bolt torqueing	72 Nm
		Air tank mounting bolt torqueing	25-30 Nm
		Valve fitment mounting bolt torqueing	25-30 Nm
7	Suspension System	Air tank mounting bolt torqueing	25-30 Nm

SR. No.	Aggregate	Part Description	Tightening (Nm)
		Valve fitment mounting bolt torqueing	25-30 Nm
8	Service Brake Fitment	Air tank mounting bolt torqueing	25-30 Nm
		Valve fitment mounting bolt torqueing	25-30 Nm
9	Propeller Shaft Fitment	Mount the prop. shaft both end for the torque	126-130 Nm
10	Traction Motor	Traction motor bracket torqueing on Traction Motor	90 Nm
		Traction motor prop flange mounting bolt torqueing	100 Nm
		Traction motor bracket assembly on structure	70 Nm
		Traction motor & structure bracket fitment bolt torqueing	300 Nm
11	Traction Motor Cooling System	Coolant hose clamp torqueing	6-8 Nm
		Radiator mounting bolt torqueing	48-52 Nm & 58-62 Nm
13	Accelerator Paddle Fitment	Accelerator pedal mounting screw	23-25 Nm
14	Battery Cooling System	Battery cooling system mounting bolt torqueing M16	180-200 Nm
		Battery cooling system mounting bolt torqueing M8	20-25 Nm
		Battery cooling system mounting bolt torqueing M10	50-60 Nm
15	Vehicle Charging Port Fitment	Charging socket torque on M6 mounting Bolts	12~15 Nm
16	HVSS	HVSS mounting bolt torqueing	7-10 Nm
17	MCU	MCU cradle mounting bolt torqueing	50-55 Nm
		MCU mounting bolt torqueing	26-30 Nm
		MCU Cover mounting Bolt	28-20 Nm
18	Auxiliary Inverter & DC-DC Converter	Auxiliary Inverter & DC-DC Converter bracket torqueing	16-18 Nm
		Auxiliary Inverter & DC-DC Converter torqueing	28-32 Nm
19	PDU	PDU cradle mounting bolt torqueing	150-155 Nm
		PDU mounting bolt torqueing	50-55 Nm
		PDU Cover mounting Bolt torqueing	6-8 Nm
20	Cable Tray	Cable trey fitment mounting bolt torqueing	16-20 Nm
21	Limit Switch	Limit switch mounting bolt torqueing	4 Nm
22	Mega fuse Fitment	Mounting bolt torqueing	6-10 Nm
23	Roof Harness Box	Roof harness box mounting bolt torqueing	10-12 Nm
24	Internal Mirror	Uniform tightening of mounting Bolt	26 Nm

SR. No.	Aggregate	Part Description	Tightening (Nm)
25	External Mirror	Uniform tightening of mounting Bolt M12	72 Nm
26	Wiper System	Wiper motor mounting torque	16 Nm
		Fitment of wiper beam arm over motor shaft	20 Nm
		Proper linkage between primary arm and secondary arm M8	16 Nm
		Wiper beam with structure torque	72 Nm
		Wiper blade to linkage torque	60 Nm
27	Roof Visor	Roof visor bracket mounting bolt torqueing M10 & M8	68 Nm & 30 Nm
		Roof visor mounting bolt	34 Nm
28	Battery Cover Fitment	Battery cover stand mounting bolt torqueing	15 -20 Nm
		Battery cover mounting bolt torqueing	60-70 Nm
29	Driver door	Torque on hinge mounting with the structure	20 Nm
30	Passenger Door Fitment	Passenger door bottom mounting torque	20-30 Nm
31	Driver Seat	Driver seat mounting	50-55 Nm
32	Passenger Seats	Passenger seats mounting torque on M10 bolts & M12 bolts	50-55 Nm & 65-70 Nm

MAINTENANCE SCHEDULE

This section describes the maintenance schedule of your vehicle. Always get your vehicle serviced from the authorized JBM service center as per schedule. Getting your vehicle service on time is a key to the lifespan, performance and safety of your vehicle.

Maintenance Schedule																	
[Legend: C-Clean, D-Drain, I-Inspect and adjust/correct/replace/top-up, if required, L-Lubricate/Grease, O-Overhaul, RR-Repair, R-Replace, T-Tighten to specific torque]																	
COMPONENTS/ASSEMBLIES	Repeat the Instructions After Distance Covered in Kilometers/Month Time Period in Service (Whichever is Earlier)																
	Daily	10 Days	10000 Km/3 Months	20000 Km/6 Months	30000 Km/9 Months	40000 Km/12 Months	50000 Km/15 Months	60000 Km/18 Months	70000 Km/21 Months	80000 Km/24 Months	90000 Km/27 Months	100000 Km/30 Months	120000 Km/36 Months	140000 km/42 Months	160000 km/48 Months	180000 km/54 Months	REMARKS Kms/Month Whichever is earlier.
TRACTION COOLING SYSTEM																	
Appearance of Radiator & Intercooler Irregularly	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Daily
Radiator Mounting Pad (AVM Pad)		I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I : Every 10 Days (Replace if required)
Check for any pipe damage or leakage	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Daily
Check the radiator fins for damage	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Daily
Clean the radiator core, If there are any things like dust, catkin or leaves stacking on the radiator core	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Daily
Check for any coolant leakages and coolant level	I	I	I	I	I	R	I	I	I	R	I	I	R	I	R	I	I: Daily R: Every 40000 kms
DC- DC CONVERTER & DC-AC INVERTER																	
Inspect the connections for looseness		I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10 days
Inspect unit for loose screws and plugs			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
Clean from dirt and dust deposits		C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C: Every 10 days
Make a visual leak test of the cooling circuit for liquid-cooled drive inverters		I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10 days
Mounting Bushes		I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I : Every 10 Days (Replace if required)
TRACTION MOTOR & CONTROLLER																	
HV & phase cables (phase and HV battery - MCU, phase - motor) - look for signs of wear & tear			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
HV and phase cables glands (MCU and motor) – for sufficiently tightened			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
Motor sensor cable and connectors - look for signs of wear & tear. Verify that connectors are properly engaged			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms

Maintenance Schedule																
[Legend: C-Clean, D-Drain, I-Inspect and adjust/correct/replace/top-up, if required, L-Lubricate/Grease, O-Overhaul, RR-Repair, R-Replace, T-Tighten to specific torque]																
COMPONENTS/ASSEMBLIES	Repeat the Instructions After Distance Covered in Kilometers/Month Time Period in Service (Whichever is Earlier)															
	200000 km/60 Months	240000 km/72 Months	280000 Km/84 Months	320000 Km/96 Months	360000 Km/108 Months	400000 Km/120 Months	440000 Km/132 Months	480000 Km/144 Months	520000 Km/156 Months	560000 Km/168 Months	600000 Km/180 Months	640000 Km/192 Months	680000 Km/204 Months	720000 Km/216 Months	760000 Km/228 Months	REMARKS Kms/Months Whichever is earlier
TRACTION COOLING SYSTEM																
Appearance of Radiator & Intercooler Irregularly	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Daily
Check for any pipe damage or leakage	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Daily
Check the radiator fins for damage	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Daily
Clean the radiator core, If there are any things like dust, catkin or leaves stacking on the radiator core	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Daily
Check for any coolant leakages & coolant level	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	I: Daily; R: Every 40000 kms
AUXILIARY INVERTER & DC DC CONVERTER																
Inspect the connections for looseness	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10 days
Inspect unit for loose screws and plugs	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
Clean from dirt and dust deposits	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C: Every 10 days
Make a visual leak test of the cooling circuit for liquid-cooled drive inverters	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10 days
Mounting Bushes	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I : Every 10 Days (Replace if required)
TRACTION MOTOR & CONTROLLER																
HV & phase cables (phase and HV battery - MCU, phase - motor) - look for signs of wear & tear	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
HV and phase cables glands (MCU and motor) – for sufficiently tightened	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
Motor sensor cable and connectors - look for signs of wear & tear. Verify that connectors are properly engaged	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms

Maintenance Schedule																	
[Legend: C-Clean, D-Drain, I-Inspect and adjust/correct/replace/top-up, if required, L-Lubricate/Grease, O-Overhaul, RR-Repair, R-Replace, T-Tighten to specific torque]																	
COMPONENTS/ASSEMBLIES	Repeat the Instructions After Distance Covered in Kilometers/Month Time Period in Service (Whichever is Earlier)																
	Daily	10 Days	10000 Km/3 Months	20000 Km/6 Months	30000 Km/9 Months	40000 Km/12 Months	50000 Km/15 Months	60000 Km/18 Months	70000 Km/21 Months	80000 Km/24 Months	90000 Km/27 Months	100000 Km/30 Months	120000 Km/36 Months	140000 km/42 Months	160000 km/48 Months	180000 km/54 Months	REMARKS Kms/Months Whichever is earlier
TRACTION MOTOR & CONTROLLER																	
VMU interface connector & cables - look for signs of wear and tear. Verify that connectors are properly engaged			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
Coolant in/out MCU & Motor - entry and exit points on the MCU			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
Ground location MCU, Motor & Chassis - Review section on grounding point			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
Motor & MCU - overall component damage			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
Vent MCU - Verify the level of dust accumulation and remove any obstruction. Clean the vent using the appropriate brush			C	C	C	C	C	C	C	C	C	C	C	C	C	C	C: Every 10000 Kms
AVM bush							I					R		I			I:Every 50000 Kms R:Every 100000 Kms
Carefully clean the surface of the equipment using an air pressure gun			C	C	C	C	C	C	C	C	C	C	C	C	C	C	C: Every 10000 Kms
Verify the level of dust accumulation and remove any obstruction			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
Validate the integrity of the rubber mounts of motor & controller and verify that all the bolts are properly tightened			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms

Maintenance Schedule																
[Legend: C-Clean, D-Drain, I-Inspect and adjust/correct/replace/top-up, if required, L-Lubricate/Grease, O-Overhaul, RR-Repair, R-Replace, T-Tighten to specific torque]																
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TRACTION MOTOR & CONTROLLER																
VMU interface connector & cables - look for signs of wear and tear. Verify that connectors are properly engaged	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
Coolant in/out MCU & Motor - entry and exit points on the MCU	R	I	R	I	I	R	I	R	I	I	R	I	R	I	R	I: Every 10000 Kms
Ground location MCU, Motor & Chassis - Review section on grounding point	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
Motor & MCU - overall component damage	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
Vent MCU - Verify the level of dust accumulation and remove any obstruction. Clean the vent using the appropriate brush	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	C: Every 10000 Kms
AVM bush	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I:Every 50000 Kms R:Every 100000 Kms
Carefully clean the surface of the equipment using an air pressure gun	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C: Every 10000 Kms
Verify the level of dust accumulation and remove any obstruction	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	I: Every 10000 Kms
Validate the integrity of the rubber mounts of motor & controller and verify that all the bolts are properly tightened	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms

Maintenance Schedule																	
[Legend: C-Clean, D-Drain, I-Inspect and adjust/correct/replace/top-up, if required, L-Lubricate/Grease, O-Overhaul, RR-Repair, R-Replace, T-Tighten to specific torque]																	
COMPONENTS/ASSEMBLIES	Repeat the Instructions After Distance Covered in Kilometers/Month Time Period in Service (Whichever is Earlier)																
	Daily	10 Days	10000 Km/3 Months	20000 Km/6 Months	30000 Km/9 Months	40000 Km/12 Months	50000 Km/15 Months	60000 Km/18 Months	70000 Km/21 Months	80000 Km/24 Months	90000 Km/27 Months	100000 Km/30 Months	120000 Km/36 Months	140000 km/42 Months	160000 km/48 Months	180000 km/54 Months	REMARKS Kms/Months Whichever is earlier
HV BATTERY																	
Check the information on battery meter	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Daily
Battery cleanliness	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Daily
Measure the insulation of the battery system			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
Check high-voltage connection or fixing plug-ins of the battery system			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
Battery pack bolt tightening			T	T	T	T	T	T	T	T	T	T	T	T	T	T	T: Every 10000 Kms
High/low voltage wiring harness potential risk			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
Cooling system inspection			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
Battery pack seal ability			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
Check the breathing valve for clogging & damage			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
Fault Alarm	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Daily
Pack Box cleaning	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Daily
High voltage harness and low voltage harness			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 18000 kms/3 Months
Torque check of current collectors						I				I			I		I		I :Every 72000 Kms/12 Months
Inspection for the status of fixing bolts of the box			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 18000 kms/3 Months
MSD inspection of control box			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 18000 kms/3 Months
Inspection of heat dissipation system			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 18000 kms/3 Months

Maintenance Schedule																
[Legend: C-Clean, D-Drain, I-Inspect and adjust/correct/replace/top-up, if required, L-Lubricate/Grease, O-Overhaul, RR-Repair, R-Replace, T-Tighten to specific torque]																
COMPONENTS/ASSEMBLIES	Repeat the Instructions After Distance Covered in Kilometers/Month Time Period in Service (Whichever is Earlier)															
	200000 km/60 Months	240000 km/72 Months	280000 Km/84 Months	320000 Km/96 Months	360000 Km/108 Months	400000 Km/120 Months	440000 Km/132 Months	480000 Km/144 Months	520000 Km/156 Months	560000 Km/168 Months	600000 Km/180 Months	640000 Km/192 Months	680000 Km/204 Months	720000 Km/216 Months	760000 Km/228 Months	REMARKS Kms/Months Whichever is earlier
HV BATTERY																
Check the information on battery meter	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Daily
Battery cleanliness	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Daily
Measure the insulation of the battery system	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
Check high-voltage connection or fixing plug-ins of the battery system	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
Battery pack bolt tightening	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T: Every 10000 Kms
High/low voltage wiring harness potential risk	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
Cooling system inspection	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
Battery pack seal ability	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
Check the Breathing valve for clogging and damage	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
Fault Alarm	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Daily
Pack Box cleaning	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Daily
High voltage harness and low voltage harness	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 18000 kms/3 Months
Torque check of current collectors	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I :Every 72000 Kms/12 months
Inspection for the status of fixing bolts of the box	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 18000 kms/3 Months
MSD inspection of control box+B11	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 18000 kms/3 Months
Inspection of heat dissipation system	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 18000 kms/3 Months

Maintenance Schedule																	
[Legend: C-Clean, D-Drain, I-Inspect and adjust/correct/replace/top-up, if required, L-Lubricate/Grease, O-Overhaul, RR-Repair, R-Replace, T-Tighten to specific torque]																	
COMPONENTS/ASSEMBLIES	Repeat the Instructions After Distance Covered in Kilometers/Month Time Period in Service (Whichever is Earlier)																
	Daily	10 Days	10000 Km/3 Months	20000 Km/6 Months	30000 Km/9 Months	40000 Km/12 Months	50000 Km/15 Months	60000 Km/18 Months	70000 Km/21 Months	80000 Km/24 Months	90000 Km/27 Months	100000 Km/30 Months	120000 Km/36 Months	140000 km/42 Months	160000 km/48 Months	180000 km/54 Months	REMARKS Kms/Months Whichever is earlier
HV BATTERY																	
Check of liquid level			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 18000 kms/3 Months
Inspection for the status of Coolant						R				R			R		R		R:Every 40000 Kms/6 Months
Sealing inspection of battery box			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 18000 kms/3 Months
Check the status of the breathing valve			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 18000 kms/3 Months
Battery Insulation Resistance Test			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 18000 kms/3 Months
Cell Balancing					I				I			I		I		I	I: Every 36000 Kms/6 Months
Check dashboard to confirm that the battery system status is normal, no battery system alarm information.	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Daily
STEERING SYSTEM																	
Clean the motor and make sure free ventilation air flow			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
Check the condition of shaft seals			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
Check the condition of connections & mounting and assembly bolts			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
Check the bearing condition for unusual noise & vibration.			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms

Maintenance Schedule																
[Legend: C-Clean, D-Drain, I-Inspect and adjust/correct/replace/top-up, if required, L-Lubricate/Grease, O-Overhaul, RR-Repair, R-Replace, T-Tighten to specific torque]																
COMPONENTS/ASSEMBLIES	Repeat the Instructions After Distance Covered in Kilometers/Month Time Period in Service (Whichever is Earlier)															
	200000 km/60 Months	240000 km/72 Months	280000 Km/84 Months	320000 Km/96 Months	360000 Km/108 Months	400000 Km/120 Months	440000 Km/132 Months	480000 Km/144 Months	520000 Km/156 Months	560000 Km/168 Months	600000 Km/180 Months	640000 Km/192 Months	680000 Km/204 Months	720000 Km/216 Months	760000 Km/228 Months	REMARKS Kms/Months Whichever is earlier
HV BATTERY																
Check of liquid level	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 18000 kms/3 Months
Inspection for the status of Coolant	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R:Every 40000 Kms/6 Months
Sealing inspection of battery box	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 18000 kms/3 Months
Check the status of the breathing valve	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 18000 kms/3 Months
Battery Insulation Resistance Test	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 18000 kms/3 Months
Cell Balancing	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 36000 Kms/6 Months
Check dashboard to confirm that the battery system status is normal, no battery system alarm information.	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Daily
STEERING SYSTEM																
Clean the motor and make sure free ventilation air flow	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
Check the condition of shaft seals	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
Check the condition of connections & mounting and assembly bolts	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
Check the bearing condition for unusual noise & vibration.	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms

Maintenance Schedule																	
[Legend: C-Clean, D-Drain, I-Inspect and adjust/correct/top-up, if required, L-Lubricate/Grease, O-Overhaul, RR-Repair, R-Replace, T-Tighten to specific torque]																	
COMPONENTS/ASSEMBLIES	Repeat the Instructions After Distance Covered in Kilometers/Month Time Period in Service (Whichever is Earlier)																
	Daily	10 Days	10000 Km/3 Months	20000 Km/6 Months	30000 Km/9 Months	40000 Km/12 Months	50000 Km/15 Months	60000 Km/18 Months	70000 Km/21 Months	80000 Km/24 Months	90000 Km/27 Months	100000 Km/30 Months	120000 Km/36 Months	140000 km/42 Months	160000 km/48 Months	180000 km/54 Months	REMARKS Kms/Months Whichever is earlier
STEERING SYSTEM																	
Worm pre-load adjustment					I			I			I		I			I	I: Every 30000 Kms
Sector shaft backlash adjustment					I			I			I		I			I	I: Every 30000 Kms
Reservoir Cap				C		C		C		C		C	C	C	C	C	C: Every 20000 Kms
Check steering Box/Pump/Reservoir/Pipe lines for oil leaks and level	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Daily; Top up if necessary
Power Steering oil & Oil Filter			I	I	I	I	I	I	I	R	I	I	I	I	R	I	I: Every 10000 Kms R: Every 80000 Kms Top up if necessary
Steering Linkages (Drag Link & Tie Rod greasing points)			L	L	L	L	L	L	L	L	L	L	L	L	L	L	L:Every 10000 Kms
Steering Gear Box / Steering Pump/Idler Arm/Tie Rod/Drag Link Fasteners			T	T	T	T	T	T	T	T	T	T	T	T	T	T	T:Every 10000 Kms
Ball Joint Free Play or any abnormality/ damage (Tie Rod, Drag Link)			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I:Every 10000 Kms
PDU, HVSS, HVMC, CHARGING SOCKET																	
Enclosure Cover Mounting Hardware																	T: Every 22500 Kms
Component Mounting and Connection Hardware																	T: Every 22500 Kms C: Every 45000 Kms
Cable Gland Locknut and Dome nut																	T: Every 22500 Kms C: Every 45000 Kms
Mounting Foot tightening																	T : Every 45000 Kms

Maintenance Schedule																
[Legend: C-Clean, D-Drain, I-Inspect and adjust/correct/replace/top-up, if required, L-Lubricate/Grease, O-Overhaul, RR-Repair, R-Replace, T-Tighten to specific torque]																
COMPONENTS/ASSEMBLIES	Repeat the Instructions After Distance Covered in Kilometers/Month Time Period in Service (Whichever is Earlier)															
	200000 km/60 Months	240000 km/72 Months	280000 Km/84 Months	320000 Km/96 Months	360000 Km/108 Months	400000 Km/120 Months	440000 Km/132 Months	480000 Km/144 Months	520000 Km/156 Months	560000 Km/168 Months	600000 Km/180 Months	640000 Km/192 Months	680000 Km/204 Months	720000 Km/216 Months	760000 Km/228 Months	REMARKS Kms/Months Whichever is earlier
STEERING SYSTEM																
Worm pre-load adjustment	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 30000 Kms
Sector shaft backlash adjustment	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 30000 Kms
Reservoir Cap	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C: Every 20000 Kms
Check steering Box/Pump/Reservoir/Pipe lines for Oil leaks and level	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Daily; Top up if necessary
Power Steering oil & Oil Filter	I	R	I	R	I	R	I	R	I	R	I	R	I	R	I	I: Every 10000 Kms R: Every 80000 Kms Top up if necessary
Steering Linkages (Drag Link & Tie Rod greasing points)	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L:Every 10000 Kms
Steering Gear Box / Steering Pump/Idler Arm/Tie Rod/Drag Link Fasteners	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T:Every 10000 Kms
Ball Joint Free Play (Tie Rod, Drag Link)	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I:Every 10000 Kms
PDU, HVSS, HVMC, CHARGING SOCKET																
Enclosure Cover Mounting Hardware																T: Every 22500 Kms
Component Mounting and Connection Hardware																T: Every 22500 Kms C: Every 45000 Kms
Cable Gland Locknut and Dome nut																T: Every 22500 Kms C: Every 45000 Kms
Mounting Foot tightening																T : Every 45000 Kms

Maintenance Schedule																	
[Legend: C-Clean, D-Drain, I-Inspect and adjust/correct/replace/top-up, if required, L-Lubricate/Grease, O-Overhaul, RR-Repair, R-Replace, T-Tighten to specific torque]																	
COMPONENTS/ASSEMBLIES	Repeat the Instructions After Distance Covered in Kilometers/Month Time Period in Service (Whichever is Earlier)																
	Daily	10 Days	10000 Km/3 Months	20000 Km/6 Months	30000 Km/9 Months	40000 Km/12 Months	50000 Km/15 Months	60000 Km/18 Months	70000 Km/21 Months	80000 Km/24 Months	90000 Km/27 Months	100000 Km/30 Months	120000 Km/36 Months	140000 km/42 Months	160000 km/48 Months	180000 km/54 Months	REMARKS Kms/Months Whichever is earlier
PDU, HVSS, HVMC, CHARGING SOCKET																	
Check for Anti Rust Corrosion (Cleaning the area and spraying the Anti Rusting Spray on the affected Part)																	C: Every 22500 kms
Charging Socket																	C: Every 6000 kms
AIR COMPRESSOR																	
Check Oil Level/Condition				I		I		I		I		I	I	I	I	I	I: Every 20000 Kms/2 Months R: Every 200000 Kms/24 Months (Top up if required)
Oil Intake Filter																	R: Every 200000 Kms/24 Months along with oil filter
Sintering filter/Hallow screw																	R: Every 200000 Kms/24 Months
Pressure relief Valve																	R: Every 200000 Kms/24 Months
Oil Pump Pressure Switch (Check for the oil Pressure indicator in the cluster and if the resistance of oil Pr. switch is more than 50m Ohm, change the Pressure switch)			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Daily; for any alerts in cluster R: Every 200000 Kms/24 Months
Air Intake Filter Element (Primary & Safety) (Check for red band appears through electronic choke indicator)																	Primary filter – R: 40000 Kms or electronic choke indicator issues warning & Secondary filter – On every 3rd time change of primary, along with safety element
Air path for compressor cooling way		I/C	I/C	I/C	I/C	I/C	I/C	I/C	I/C	I/C	I/C	I/C	I/C	I/C	I/C	I/C	I/C: Every 10 Days; Any dust available/Jam of Wire mesh

Maintenance Schedule																
[Legend: C-Clean, D-Drain, I-Inspect and adjust/correct/replace/top-up, if required, L-Lubricate/Grease, O-Overhaul, RR-Repair, R-Replace, T-Tighten to specific torque]																
COMPONENTS/ASSEMBLIES	Repeat the Instructions After Distance Covered in Kilometers/Month Time Period in Service (Whichever is Earlier)															
	200000 km/60 Months	240000 km/72 Months	280000 Km/84 Months	320000 Km/96 Months	360000 Km/108 Months	400000 Km/120 Months	440000 Km/132 Months	480000 Km/144 Months	520000 Km/156 Months	560000 Km/168 Months	600000 Km/180 Months	640000 Km/192 Months	680000 Km/204 Months	720000 Km/216 Months	760000 Km/228 Months	REMARKS Kms/Months Whichever is earlier
PDU, HVSS, HVMC, Charging Socket																
Check for Anti Rust Corrosion (Cleaning the area and spraying the Anti Rusting Spray on the affected Part)																C: Every 22500 kms
Charging Socket																C: Every 6000 kms
AIR COMPRESSOR																
Check Oil Level/Condition	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 20000 Kms/2 Months R: Every 200000 Kms/24 Months (Top up if required)
Oil Intake Filter	R					R					R				R	R: Every 200000 Kms/24 Months along with oil filter
Sintering filter/Hallow screw	R					R					R				R	R: Every 200000 Kms/24 Months
Pressure relief Valve	R					R					R				R	R: Every 200000 Kms/24 Months
Oil Pump Pressure Switch (Check for the oil Pr. indicator in the cluster and if the resistance of oil Pressure switch is more than 50m Ohm, change the Pressure switch)	R	I	I	I	I	R	I	I	I	I	R	I	I	I	R	I: Once at 15 Days; for any alerts in cluster R: Every 200000 Kms/24 Months
Air Intake Filter Element (Primary & Safety) (Check for red band appears through electronic)																Primary filter – R: 40000 Kms or electronic choke indicator issues warning & Secondary filter – On every 3rd time change of primary, along with safety element
Air path for compressor cooling way	I/C	I/C	I/C	I/C	I/C	I/C	I/C	I/C	I/C	I/C	I/C	I/C	I/C	I/C	I/C	I/C: Every 15 Days; Any dust available/Jam of Wire mesh

Maintenance Schedule																	
[Legend: C-Clean, D-Drain, I-Inspect and adjust/correct/replace/top-up, if required, L-Lubricate/Grease, O-Overhaul, RR-Repair, R-Replace, T-Tighten to specific torque]																	
COMPONENTS/ASSEMBLIES	Repeat the Instructions After Distance Covered in Kilometers/Month Time Period in Service (Whichever is Earlier)																
	Daily	10 Days	10000 Km/3 Months	20000 Km/6 Months	30000 Km/9 Months	40000 Km/12 Months	50000 Km/15 Months	60000 Km/18 Months	70000 Km/21 Months	80000 Km/24 Months	90000 Km/27 Months	100000 Km/30 Months	120000 Km/36 Months	140000 km/42 Months	160000 km/48 Months	180000 km/54 Months	REMARKS Kms/Months Whichever is earlier
AIR COMPRESSOR																	
Temperature high- Alert from Motor			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Daily; for any alerts in cluster
Check for proper earthing and wiring condition (Need to check for rusting / painting / tightening torque - not to be in loose condition			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms/1 Month
3/2 solenoid valve - Functioning			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms/1 Month
Check Air filter clamps/ Joints/ Pipes for looseness/damages			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms/1 Month
Check Routing of pipes rubbing/puncture/leak			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms/1 Month
Wiring routings and proper clamping Any looseness / Tied. Not near to any heat elements			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms/1 Month
Compressor overhaul (cleaning of cylinder head, Gasket, Piston rings, sealing rings need to change)																	O: Every 200000 Kms/24 Months
Cooling fan (All the four fans to be replaced)			C	C	C	C	C	C	C	C	C	C	C	C	C	C	C: Every 5000 Kms R: Every 200000 Kms/24 Months
Damper (check for cracks, rubber softening, deflection in 'V' groove, mounting bolts tightening torque - 21Nm +/- 2Nm)																	R: Every 200000 Kms/24 Months
Mounting Pads (Proper tightness/Damages)	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: 5000 kms/15 days Replace if required

Inlet hose (resonator & Cylinder head) (Any leakage/ Material cut)																I: Every 200000 Kms/24 Months

Maintenance Schedule																
[Legend: C-Clean, D-Drain, I-Inspect and adjust/correct/replace/top-up, if required, L-Lubricate/Grease, O-Overhaul, RR-Repair, R-Replace, T-Tighten to specific torque]																
COMPONENTS/ASSEMBLIES	Repeat the Instructions After Distance Covered in Kilometers/Month Time Period in Service (Whichever is Earlier)															
	200000 km/60 Months	240000 km/72 Months	280000 Km/84 Months	320000 Km/96 Months	360000 Km/108 Months	400000 Km/120 Months	440000 Km/132 Months	480000 Km/144 Months	520000 Km/156 Months	560000 Km/168 Months	600000 Km/180 Months	640000 Km/192 Months	680000 Km/204 Months	720000 Km/216 Months	760000 Km/228 Months	REMARKS Kms/Months Whichever is earlier
AIR COMPRESSOR																
Temperature high- Alert from Motor	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Daily; for any alerts in cluster
Check for proper earthing and wiring condition (Need to check for rusting / painting / tightening torque - not to be in loose condition	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms/1 Month
3/2 solenoid valve - Functioning	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms/1 Month
Check Air filter clamps/ Joints/ Pipes for looseness/damages	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms/1 Month
Check Routing of pipes fouling/puncture/leak	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms/1 Month
Wiring routings and proper clamping Any looseness / Tied. Not near to any heat elements	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms/1 Month
Compressor overhaul (cleaning of cylinder head, Gasket, Piston rings, sealing rings need to change)		O		O		O		O		O		O		O		O: Every 200000 Kms/24 Months
Cooling fan (All the four fans to be replaced)	C	R	C	R	C	R	C	R	C	R	C	R	C	R	C	C: Every 5000 Kms R: Every 200000 Kms/24 Months
Damper (check for cracks, rubber softening, deflection in 'V' groove, mounting bolts tightening torque - 21Nm +/- 2Nm)		R		R		R		R		R		R		R		R: Every 200000 Kms/24 Months
Mounting Pads (Proper tightness/Damages)	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Daily; Replace if required
Inlet hose (resonator & Cylinder head) (Any leakage/ Material cut)		I		I		I		I		I		I		I		I: Every 200000 Kms/24 Months

Maintenance Schedule																	
[Legend: C-Clean, D-Drain, I-Inspect and adjust/correct/replace/top-up, if required, L-Lubricate/Grease, O-Overhaul, RR-Repair, R-Replace, T-Tighten to specific torque]																	
COMPONENTS/ASSEMBLIES	Repeat the Instructions After Distance Covered in Kilometers/Month Time Period in Service (Whichever is Earlier)																
	Daily	10 Days	10000 Km/3 Months	20000 Km/6 Months	30000 Km/9 Months	40000 Km/12 Months	50000 Km/15 Months	60000 Km/18 Months	70000 Km/21 Months	80000 Km/24 Months	90000 Km/27 Months	100000 Km/30 Months	120000 Km/36 Months	140000 km/42 Months	160000 km/48 Months	180000 km/54 Months	REMARKS Kms/Months Whichever is earlier
TRANSMISSION SHAFT																	
Propeller Shaft Flange Bolts						T				T			T		T		T: Every 40000 Kms
Propeller shaft Universal Joint Condition		I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I : Every 10 Days
FRONT AXLE																	
King Pin Bearings (Upper and Lower)																	I: After 72000Km
Axle Mounting																	I: After 18000Km
Nipple Greasing																	L: After 18000Km
Bearing																	I/L: After 50000Km/3Years
REAR AXLE																	
Differential Oil																	I: After 36000 Km R: After 144000 Km/2Years
Bearing and Other Component																	C/R: After 36000Km
Wheel Speed Sensor																	I: After 18000 Km
Lower and Upper Arm																	I: After 18000 Km

Maintenance Schedule																
[Legend: C-Clean, D-Drain, I-Inspect and adjust/correct/replace/top-up, if required, L-Lubricate/Grease, O-Overhaul, RR-Repair, R-Replace, T-Tighten to specific torque]																
COMPONENTS/ASSEMBLIES	Repeat the Instructions After Distance Covered in Kilometers/Month Time Period in Service (Whichever is Earlier)															
	200000 km/60 Months	240000 km/72 Months	280000 Km/84 Months	320000 Km/96 Months	360000 Km/108 Months	400000 Km/120 Months	440000 Km/132 Months	480000 Km/144 Months	520000 Km/156 Months	560000 Km/168 Months	600000 Km/180 Months	640000 Km/192 Months	680000 Km/204 Months	720000 Km/216 Months	760000 Km/228 Months	REMARKS Kms/Months Whichever is earlier
TRANSMISSION SHAFT																
Propeller Shaft Flange Bolts	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T: Every 40000 Kms
Propeller shaft Universal Joint Condition	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I : Every 10 Days
FRONT AXLE																
King Pin Bearings (Upper and Lower)																I: After 72000Km
Axle Mounting																I: After 18000Km
Nipple Greasing																L: After 18000Km
Bearing																I/L: After 50000Km/3Years
REAR AXLE																
Differential Oil																I: After 36000 Km R: After 144000 Km/2Years
Bearing and Other Component																C/R: After 36000Km
Wheel Speed Sensor																I: After 18000 Km
Lower and Upper Arm																I: After 18000 Km

Maintenance Schedule																	
[Legend: C-Clean, D-Drain, I-Inspect and adjust/correct/replace/top-up, if required, L-Lubricate/Grease, O-Overhaul, RR-Repair, R-Replace, T-Tighten to specific torque]																	
COMPONENTS/ASSEMBLIES	Repeat the Instructions After Distance Covered in Kilometers/Month Time Period in Service (Whichever is Earlier)																REMARKS Kms/Months Whichever is earlier
	Daily	10 Days	10000 Km/3 Months	20000 Km/6 Months	30000 Km/9 Months	40000 Km/12 Months	50000 Km/15 Months	60000 Km/18 Months	70000 Km/21 Months	80000 Km/24 Months	90000 Km/27 Months	100000 Km/30 Months	120000 Km/36 Months	140000 km/42 Months	160000 km/48 Months	180000 km/54 Months	
BRAKE SYSTEM																	
Brake Rubber Boots				I		I		I		I		I	I	I	I	I	I: Every 20000 Kms/6 Months
Drain-off Air from Air Tank to Check Water in Lines (If water is found; Replace the Air Drier Desiccant Cartridge)			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
Brake Pads		I	I	C	I	C	I	C	I	C	I	C	C	C	C	C	I: Every 10 Days; C: Every 20000 Kms
SUSPENSION SYSTEM																	
Mounting and Static Height of Air Bellows																	I: After 18000Km
Shock Absorber and Rubber Bushes																	I: After 18000Km
Functioning of Level Control Valves and Suspension Bushes																	I: After 72000Km

Maintenance Schedule																
[Legend: C-Clean, D-Drain, I-Inspect and adjust/correct/replace/top-up, if required, L-Lubricate/Grease, O-Overhaul, RR-Repair, R-Replace, T-Tighten to specific torque]																
COMPONENTS/ASSEMBLIES	Repeat the Instructions After Distance Covered in Kilometers/Month Time Period in Service (Whichever is Earlier)															
	200000 km/60 Months	240000 km/72 Months	280000 Km/84 Months	320000 Km/96 Months	360000 Km/108 Months	400000 Km/120 Months	440000 Km/132 Months	480000 Km/144 Months	520000 Km/156 Months	560000 Km/168 Months	600000 Km/180 Months	640000 Km/192 Months	680000 Km/204 Months	720000 Km/216 Months	760000 Km/228 Months	REMARKS Kms/Months Whichever is earlier
BRAKE SYSTEM																
Brake Rubber Boots				I		I		I		I		I	I	I	I	I: Every 20000 Kms/6 Months
Drain-off Air From Air Tank to Check Water in Lines (If water is Found; Replace the Air Drier Desiccant Cartridge)			I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
Brake Pads		I	I	C	I	C	I	C	I	C	I	C	C	C	C	I: Every 10 Days; C: Every 20000 Kms
SUSPENSION SYSTEM																
Mounting and Static Height of Air Bellows																I: After 18000Km
Shock Absorber and Rubber Bushes																I: After 18000Km
Functioning of Level Control Valves and Suspension Bushes																I: After 72000Km

Maintenance Schedule																	
[Legend: C-Clean, D-Drain, I-Inspect and adjust/correct/replace/top-up, if required, L-Lubricate/Grease, O-Overhaul, RR-Repair, R-Replace, T-Tighten to specific torque]																	
COMPONENTS/ASSEMBLIES	Repeat the Instructions After Distance Covered in Kilometers/Month Time Period in Service (Whichever is Earlier)																
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Pneumatic System																	
QSPV - Gaiter condition and pressure drop for NRV												I					I: Every 100000 Kms; Check for Gaiter condition and Remove APDA delivery hose & check for Air pressure drop to detect NRV leak, Clean and replace NRV if necessary
Foot Brake Valve - Boot for damage /deterioration												I					I: Every 100000 Kms; Check boot for damage/deterioration and replace if necessary. Check the performance and rectify. If necessary
Double Check Valve – Leak & Rust Formation												I					I: Every 100000 Kms; Check the Double Check valve for any leak and replace if necessary. Check for any rust formation
Air Dryer - Gaiter condition and pressure drop for NRV												I					I: Every 100000 Kms; Check for Gaiter condition; replace if required. Remove AD delivery & check for air pressure drop to detect NRV leak clean and refit or replace NRV if required
ECAS - PRESSURE SENSOR - Pressure value						I				I/R			I		I/R		I: Every 40000 Kms R: Every 80000 Kms; If found defective

Maintenance Schedule																
[Legend: C-Clean, D-Drain, I-Inspect and adjust/correct/replace/top-up, if required, L-Lubricate/Grease, O-Overhaul, RR-Repair, R-Replace, T-Tighten to specific torque]																
COMPONENTS/ASSEMBLIES	Repeat the Instructions After Distance Covered in Kilometers/Month Time Period in Service (Whichever is Earlier)															
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Pneumatic System																
Foot Brake Valve - Boot for damage /deterioration	I					I					I					I: Every 100000 Kms; Check boot for damage/deterioration & replace if necessary. Check the performance and rectify. If necessary.
Foot Brake Valve - Overhaul	O					O					O					O: Every 200000 Kms;
Double Check Valve – Leak & Rust Formation	I					I					I					I: Every 100000 Kms; Check the Double Check valve for any leak and replace if necessary. Check for any rust formation
Double Check Valve – Leak	O					O					O					O: Every 200000 Kms; Check the Double Check Valve for any leak and replace, if necessary
Air Dryer - Gaiter condition and pressure drop for NRV	I					I					I					I: Every 100000 Kms; Check for gaiter condition; replace if necessary. Remove AD delivery & check for air pressure drop to detect NRV leak clean and replace NRV if necessary
Air Dryer - Check for pressure drop	O					O					O					O: Every 200000 Kms; Drain the tank 21 and check the pressure drop in 22 and visa verse if leak found Overhaul the unit.
ECAS - PRESSURE SENSOR - Pressure value	I	I/R	I	I/R	I	I/R	I	I/R	I	I/R	I	I/R	I	I/R	I	I: Every 40000 Kms R: Every 80000 Kms; If found defective

Maintenance Schedule																	
[Legend: C-Clean, D-Drain, I-Inspect and adjust/correct/replace/top-up, if required, L-Lubricate/Grease, O-Overhaul, RR-Repair, R-Replace, T-Tighten to specific torque]																	
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Pneumatic System																	
Leveling valve – Leakage & Rust Formation												I					I: Every 100000 Kms; Check the Leveling valve for any leak and replace if necessary. Check for any rust formation
R14 Relay valve - Proper functioning												I					I: Every 100000 Kms; Check for proper functioning of the valve
Pressure Limiting Valve - Proper functioning												I					I: Every 100000 Kms; Check for proper functioning of the valve
GHCV With Self Return - Lever for proper locking in brakes 'ON/OFF' conditions and knob/gaiter for damage												I					I: Every 100000 Kms; Check lever for proper locking in brakes 'ON/OFF' conditions. Check knob/gaiter for damage and replace, if necessary. Check for on/off leak. Repair the valve with repair kit if necessary

Maintenance Schedule																
[Legend: C-Clean, D-Drain, I-Inspect and adjust/correct/replace/top-up, if required, L-Lubricate/Grease, O-Overhaul, RR-Repair, R-Replace, T-Tighten to specific torque]																
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Pneumatic System																
Leveling valve – Leakage & Rust Formation	I					I					I					I: Every 100000 Kms; Check the Leveling valve for any leak and replace if necessary. Check for any rust formation
Leveling valve – Leakage	O					O					O					O: Every 200000 Kms; Check the Leveling Valve for any leak and replace, if necessary
3/2 Solenoid Valve	O					O					O					O: Every 200000 Kms;
R14 Relay valve - Proper functioning	I					I					I					I: Every 100000 Kms; Check for proper functioning of the valve.
R14 Relay valve - Overhaul	O					O					O					O: Every 200000 Kms;
Pressure Limiting Valve - Proper functioning	I					I					I					I: Every 100000 Kms; Check for proper functioning of the valve.
Pressure Limiting Valve - Overhaul	O					O					O					O: Every 200000 Kms;

Maintenance Schedule																
[Legend: C-Clean, D-Drain, I-Inspect and adjust/correct/replace/top-up, if required, L-Lubricate/Grease, O-Overhaul, RR-Repair, R-Replace, T-Tighten to specific torque]																
COMPONENTS/ASSEMBLIES	**Repeat the Instructions After Distance Covered in Kilometers/Month Time Period in Service (Whichever is Earlier)**															
	200000 km/60 Months	240000 km/72 Months	280000 Km/84 Months	320000 Km/96 Months	360000 Km/108 Months	400000 Km/120 Months	440000 Km/132 Months	480000 Km/144 Months	520000 Km/156 Months	560000 Km/168 Months	600000 Km/180 Months	640000 Km/192 Months	680000 Km/204 Months	720000 Km/216 Months	760000 Km/228 Months	**REMARKS Kms/Months Whichever is earlier**
Pneumatic System																
GHCV With Self Return - Lever for proper locking in brakes 'ON/OFF' conditions and knob/gaiter for damage	I					I					I					I: Every 100000 Kms; Check lever for proper locking in brakes 'ON/OFF' conditions. Check knob/gaiter for damage and replace, if necessary. Check for on/off leak. Repair the valve with repair kit if necessary
GHCV With Self Return - Overhaul	O					O					O					O: Every 200000 Kms; Check lever for proper locking in brakes 'ON/OFF' conditions. Check knob/gaiter for damage and replace, if necessary. Check for on/off leak. Repair the valve with repair kit if necessary

CLEANING AND INSPECTION of PNEUMATIC COMPONENTS at the time of Overhauling

QUADRUPLE SYSTEM PROTECTION VALVE:

1. Clean all the components with a cleaning solvent and blow dry with compressed air. Ensure that no trace of solvent is present in the components during assembly.
2. Thoroughly clean the body and check the valve seats for damage, nick marks. Check the threads for damage.
3. Check the springs for distortion, and permanent set.

FOOT BRAKE VALVE:

1. Check all the parts for any damage and dust entry.
2. Check inside surface of the valves for any pitting or worn-out condition.
3. Check the sealing and internal components condition and ensure it's in working condition.
4. If a component found damage, replace it.
5. Clean and dry the components before assembling and ensure no dirt particles on the components.

DOUBLE CHECK VALVE:

1. Clean all the metallic parts using cleaning solvent and blow dry with compressed air. Ensure that no trace of solvent is present during reassembly.
2. Check the body and the end covers for damage on port face/thread and nick marks.
3. Scrap all the old parts which are found to be unserviceable.

AIR DRYER:

1. Check the airlines /compressor mounting bolts for tightness.
2. Ensure that the air Inlet line is in good condition.
3. Check for tightness of cylinder head mounting bolts of the compressor.

LEVELING VALVE:

1. Clean all the components with a cleaning solvent and blow dry with compressed air. Ensure that no trace of solvent is present in the components during assembly.
2. Thoroughly clean the body and check the valve seats for damage, nick marks. Check the threads for damage.
3. Check the springs for distortion, and permanent set.

R14 RELAY VALVE:

1. Wash all metal parts in mineral spirits and dry them thoroughly. (Note: When rebuilding, all springs and all rubber parts should be replaced.)
2. Inspect all metal parts for deterioration and wear, as evidenced by scratches, scoring and corrosion.
3. Inspect the exhaust valve seat on the relay piston for nicks and scratches which could cause excessive leakage.
4. Inspect the inlet valve seat in the body for scratches and nicks, which could cause excessive leakage.
5. Inspect the exhaust seat of the quick release diaphragm in the R-14 cover and make sure all internal air passages in this area are open and clean and free from nicks and scratches.
6. Replace all parts not considered serviceable during these inspections and all springs and rubber parts.

PRESSURE LIMITING VALVE:

1. Clean all the components with a cleaning solvent and blow dry with compressed air. Ensure that no trace of solvent is present in the components during assembly.
2. Thoroughly clean the body and check the valve seats for damage, nick marks. Check the threads for damage.
3. Check the springs for distortion, and permanent set.

HAND BRAKE VALVE:

1. Clean all the components with a cleaning solvent and blow dry with compressed air. Ensure that no trace of solvent is present in the components during assembly.
2. Thoroughly clean the body and check the valve seats for damage, nick marks. Check the threads for damage.
3. Check the springs for distortion, and permanent set.

Maintenance Schedule																	
[Legend: C-Clean, D-Drain, I-Inspect and adjust/correct/replace/top-up, if required, L-Lubricate/Grease, O-Overhaul, RR-Repair, R-Replace, T-Tighten to specific torque]																	
COMPONENTS/ASSEMBLIES	Repeat the Instructions After Distance Covered in Kilometers/Month Time Period in Service (Whichever is Earlier)																
	Daily	10 Days	10000 Km/3 Months	20000 Km/6 Months	30000 Km/9 Months	40000 Km/12 Months	50000 Km/15 Months	60000 Km/18 Months	70000 Km/21 Months	80000 Km/24 Months	90000 Km/27 Months	100000 Km/30 Months	120000 Km/36 Months	140000 km/42 Months	160000 km/48 Months	180000 km/54 Months	REMARKS Kms/Months Whichever is earlier
WHEELS & TYRES																	
Tire Condition/Tread Depth	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Daily
Tire Rotation and Wheel Alignment			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms; if any wear is noticed
Wheel Mounting Nuts	I	I	T	T	T	T	T	T	T	T	T	T	T	T	T	T	I: Daily T: Every 10000 Kms
ELECTRICAL SYSTEM																	
Battery Mountings		I	T	T	T	T	T	T	T	T	T	T	T	T	T	T	I: Every 10 Days T: Every 10000 Kms
Battery Posts and Terminals		I	C/T	C/T	C/T	C/T	C/T	C/T	C/T	C/T	C/T	C/T	C/T	C/T	C/T	C/T	I: Every 10 Days C/T: Every 10000 Kms
Electrolyte Level, Specific Gravity & Breather Cap Cleaning		I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10 Days
Switches, Gauges, Buzzers, Lights and Driver Controls	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Daily
Fuse Relay			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
Head Lamp Focusing and Fog Lamp			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
HATCH & DOORS																	
Functionality of Roof Hatch		I															I: Every 10 Days
Lower support							I/C					I/C					I/C: Every 50000 Km / 6 Month
Upper support							I/C					I/C					I/C: Every 50000 Km / 6 Month
Screw lower arm							I/C					I/C					I/C: Every 50000 Km / 6 Month

Maintenance Schedule																
[Legend: C-Clean, D-Drain, I-Inspect and adjust/correct/replace/top-up, if required, L-Lubricate/Grease, O-Overhaul, RR-Repair, R-Replace, T-Tighten to specific torque]																
COMPONENTS/ASSEMBLIES	Repeat the Instructions After Distance Covered in Kilometers/Month Time Period in Service (Whichever is Earlier)															
	200000 km/60 Months	240000 km/72 Months	280000 Km/84 Months	320000 Km/96 Months	360000 Km/108 Months	400000 Km/120 Months	440000 Km/132 Months	480000 Km/144 Months	520000 Km/156 Months	560000 Km/168 Months	600000 Km/180 Months	640000 Km/192 Months	680000 Km/204 Months	720000 Km/216 Months	760000 Km/228 Months	REMARKS Kms/Months Whichever is earlier
WHEELS & TYRES																
Tire Condition/Tread Depth	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Daily
Tire Rotation and Wheel Alignment	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms if any wear is noticed
Wheel Mounting Nuts	I/T	I/T	I/T	I/T	I/T	I/T	I/T	I/T	I/T	I/T	I/T	I/T	I/T	I/T	I/T	I: Daily T: Every 10000 Kms
ELECTRICAL SYSTEM																
Battery Mountings	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	I: Every 10 Days T: Every 10000 Kms
Battery Posts and Terminals	C/T	C/T	C/T	C/T	C/T	C/T	C/T	C/T	C/T	C/T	C/T	C/T	C/T	C/T	C/T	I: Every 10 Days C/T: Every 10000 Kms
Electrolyte Level and Specific Gravity	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10 Days
Switches, Gauges, Buzzers, Lights and Driver Controls	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Daily
Fuse Relay	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
Head Lamp Focusing and Fog Lamp	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
HATCH & DOORS																
Functionality of Roof Hatch																I: Every 10 Days
Lower support	I/C					I/C					I/C					I/C: Every 50000 Km / 6 Month
Upper support	I/C					I/C					I/C					I/C: Every 50000 Km / 6 Month
Screw lower arm	I/C					I/C					I/C					I/C: Every 50000 Km / 6 Month

Maintenance Schedule																	
[Legend: C-Clean, D-Drain, I-Inspect and adjust/correct/replace/top-up, if required, L-Lubricate/Grease, O-Overhaul, RR-Repair, R-Replace, T-Tighten to specific torque]																	
COMPONENTS/ASSEMBLIES	Repeat the Instructions After Distance Covered in Kilometers/Month Time Period in Service (Whichever is Earlier)																
	Daily	10 Days	10000 Km/3 Months	20000 Km/6 Months	30000 Km/9 Months	40000 Km/12 Months	50000 Km/15 Months	60000 Km/18 Months	70000 Km/21 Months	80000 Km/24 Months	90000 Km/27 Months	100000 Km/30 Months	120000 Km/36 Months	140000 km/42 Months	160000 km/48 Months	180000 km/54 Months	REMARKS Kms/Months whichever is earlier
HATCH & DOORS																	
Upper ball joint							I/C					I/C					I/C: Every 50000 Km / 6 Month
Stabilizer screws							I/C					I/C					I/C: Every 50000 Km / 6 Month
Upper guide							I/C					I/C					I/C: Every 50000 Km / 6 Month
Sensitivity							I/C					I/C					I/C: Every 50000 Km / 6 Month
Leaf´s rubbers							I					I					I: Every 50000 Km / 6 Month
Bar, bottom bracket, stabilizer							I					I					I: Every 50000 Km / 6 Month
Pneumatics							I					I					I: Every 50000 Km / 6 Month
Upper rubber							I/C					I/C					I/C: Every 50000 Km / 6 Month
Swinging lever							I					I					I: Every 50000 Km / 6 Month
Swinging lever bar							I					I					I: Every 50000 Km / 6 Month
Nut arm / ball joint shaft							I					I					I: Every 50000 Km / 6 Month
Lower glass rubber							I/C					I/C					I/C: Every 50000 Km / 6 Month
Flap rubber / Aluminium							I/C					I/C					I/C: Every 50000 Km / 6 Month
Lubricate Spring shaft																	L: Every 100000 Kms / 12 Month

Maintenance Schedule																
[Legend: C-Clean, D-Drain, I-Inspect and adjust/correct/replace/top-up, if required, L-Lubricate/Grease, O-Overhaul, RR-Repair, R-Replace, T-Tighten to specific torque]																
COMPONENTS/ASSEMBLIES	Repeat the Instructions After Distance Covered in Kilometers/Month Time Period in Service (Whichever is Earlier)															
	200000 km/60 Months	240000 km/72 Months	280000 Km/84 Months	320000 Km/96 Months	360000 Km/108 Months	400000 Km/120 Months	440000 Km/132 Months	480000 Km/144 Months	520000 Km/156 Months	560000 Km/168 Months	600000 Km/180 Months	640000 Km/192 Months	680000 Km/204 Months	720000 Km/216 Months	760000 Km/228 Months	REMARKS Kms/Months whichever is earlier
HATCH & DOORS																
Upper ball joint	I/C					I/C					I/C					I/C: Every 50000 Km / 6 Month
Stabilizer screws	I/C					I/C					I/C					I/C: Every 50000 Km / 6 Month
Upper guide	I/C					I/C					I/C					I/C: Every 50000 Km / 6 Month
Sensitivity	I/C					I/C					I/C					I/C: Every 50000 Km / 6 Month
Leaf´s rubbers	I					I					I					I: Every 50000 Km / 6 Month
Bar, bottom bracket, stabilizer	I					I					I					I: Every 50000 Km / 6 Month
Pneumatics	I					I					I					I: Every 50000 Km / 6 Month
Upper rubber	I/C					I/C					I/C					I/C: Every 50000 Km / 6 Month
Swinging lever	I					I					I					I: Every 50000 Km / 6 Month
Swinging lever bar	I					I					I					I: Every 50000 Km / 6 Month
Nut arm / ball joint shaft	I					I					I					I: Every 50000 Km / 6 Month
Lower glass rubber	I/C					I/C					I/C					I/C: Every 50000 Km / 6 Month
Flap rubber / Aluminium	I/C					I/C					I/C					I/C: Every 50000 Km / 6 Month
Lubricate Spring shaft																L: Every 100000 Kms / 12 Month

Maintenance Schedule																	
[Legend: C-Clean, D-Drain, I-Inspect and adjust/correct/replace/top-up, if required, L-Lubricate/Grease, O-Overhaul, RR-Repair, R-Replace, T-Tighten to specific torque]																	
COMPONENTS/ASSEMBLIES	Repeat the Instructions After Distance Covered in Kilometers/Month Time Period in Service (Whichever is Earlier)																
	Daily	10 Days	10000 Km/3 Months	20000 Km/6 Months	30000 Km/9 Months	40000 Km/12 Months	50000 Km/15 Months	60000 Km/18 Months	70000 Km/21 Months	80000 Km/24 Months	90000 Km/27 Months	100000 Km/30 Months	120000 Km/36 Months	140000 km/42 Months	160000 km/48 Months	180000 km/54 Months	REMARKS Kms/Months whichever is earlier
HATCH & DOORS																	
Synchronization cable																	R: Every 125000 Km
Drive belt																	R: Every 125000 Km
Flat linear guide																	R: Every 125000 Km
Spiral cables																	R: Every 125000 Km
Lower rollers																	R: Every 125000 Km
Stabilizer bearing																	R: Every 125000 Km
Elliptical guide and upper roller																	R: Every 125000 Km
Cylindrical linear guides																	R: Every 125000 Km
Stoppers																	R: Every 125000 Km
Structural integrity and appearance of leaves																	R: Every 125000 Km
Sealing rubbers																	R: Every 125000 Km

Maintenance Schedule																
[Legend: C-Clean, D-Drain, I-Inspect and adjust/correct/replace/top-up, if required, L-Lubricate/Grease, O-Overhaul, RR-Repair, R-Replace, T-Tighten to specific torque]																
COMPONENTS/ASSEMBLIES	Repeat the Instructions After Distance Covered in Kilometers/Month Time Period in Service (Whichever is Earlier)															
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HATCH & DOORS																
Synchronization cable																R: Every 125000 Km
Drive belt																R: Every 125000 Km
Flat linear guide																R: Every 125000 Km
Spiral cables																R: Every 125000 Km
Lower rollers																R: Every 125000 Km
Stabilizer bearing																R: Every 125000 Km
Elliptical guide and upper roller																R: Every 125000 Km
Cylindrical linear guides																R: Every 125000 Km
Stoppers																R: Every 125000 Km
Structural integrity and appearance of leaves																R: Every 125000 Km
Sealing rubbers																R: Every 125000 Km

Maintenance Schedule																	
[Legend: C-Clean, D-Drain, I-Inspect and adjust/correct/replace/top-up, if required, L-Lubricate/Grease, O-Overhaul, RR-Repair, R-Replace, T-Tighten to specific torque]																	
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DASHBOARD & OTHER SYSTEMS																	
Mounting and Functioning of the Dashboard and its Controls			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
Mounting and Functioning of the Camera and its Controls			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I:Every 10000 Kms
AIR CONDITIONING SYSTEM																	
Check all unit attachments and all refrigerant pipes connectors for tight fit and security.						I				I			I		I		I: First at 1 Month Every 12 Months
Visual Inspection of all components for corrosion, wear and mechanical damage				I		I		I		I		I	I	I	I	I	I: Every 6 Months Replace if required
Check screw connectors for security				I		I		I		I		I	I	I	I	I	I: Every 6 Months
Examination for tightness with leakage finder						I				I			I		I		I: Every 12 Months
Inspect condenser and evaporator fins for pollution						I				I			I		I		I: Every 12 Months; Clean if required
Check fresh air/circulating air filter for pollution						I				I			I		I		I: Every 12 Months; Replace if required
Check refrigerant charge in the circuit				I		I		I		I		I	I	I	I	I	I: Every 6 Months
Inspect refrigerant collector for cracks, corrosion and other damage				I		I		I		I		I	I	I	I	I	I: Every 6 Months; if found any damage replace refrigerant collector
Replace filter dryer						R				R			R		R		R: Every 12 Months
Oil level in the compressor (When replacing the filter dryer, 50ml oil must be refilled)																	After filter dryer replacement

Maintenance Schedule																
[Legend: C-Clean, D-Drain, I-Inspect and adjust/correct/replace/top-up, if required, L-Lubricate/Grease, O-Overhaul, RR-Repair, R-Replace, T-Tighten to specific torque]																
COMPONENTS/ASSEMBLIES	Repeat the Instructions After Distance Covered in Kilometers/Month Time Period in Service (Whichever is Earlier)															
	200000 km/60 Months	240000 km/72 Months	280000 Km/84 Months	320000 Km/96 Months	360000 Km/108 Months	400000 Km/120 Months	440000 Km/132 Months	480000 Km/144 Months	520000 Km/156 Months	560000 Km/168 Months	600000 Km/180 Months	640000 Km/192 Months	680000 Km/204 Months	720000 Km/216 Months	760000 Km/228 Months	REMARKS Kms/Months Whichever is earlier
DASHBOARD & OTHER SYSTEMS																
Mounting and Functioning of the Dashboard and its Controls	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I:Every 10000 Kms
Mounting and Functioning of the Camera and its Controls	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I:Every 10000 Kms
AIR CONDITIONING SYSTEM																
Check all unit attachments and all refrigerant pipes connectors for tight fit and security.	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: First at 1 Month Every 12 Months
Visual Inspection of all components for corrosion, wear and mechanical damage	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 6 Months Replace if required
Check screw connectors for security	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 6 Months
Examination for tightness with leakage finder	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 12 Months
Inspect condenser and evaporator fins for pollution	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 12 Months; Clean if required
Check fresh air/circulating air filter for pollution	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 12 Months; Replace if required
Check refrigerant charge in the circuit	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 6 Months
Inspect refrigerant collector for cracks, corrosion and other damage	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 6 Months; if found any damage replace refrigerant collector
Replace filter dryer	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R: Every 12 Months
Oil level in the compressor (When replacing the filter dryer, 50ml oil must be refilled)																After filter dryer replacement

Maintenance Schedule																	
[Legend: C-Clean, D-Drain, I-Inspect and adjust/correct/replace/top-up, if required, L-Lubricate/Grease, O-Overhaul, RR-Repair, R-Replace, T-Tighten to specific torque]																	
COMPONENTS/ASSEMBLIES	Repeat the Instructions After Distance Covered in Kilometers/Month Time Period in Service (Whichever is Earlier)																
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AIR CONDITIONING SYSTEM																	
Check high pressure and low pressure switches						I				I			I		I		I: Every 12 Months
Check oil level in compressor				I		I		I		I		I	I	I	I	I	I: Every 6 Months
Check condenser fan for function				I		I		I		I		I	I	I	I	I	I: Every 6 Months
Check evaporator fan for function				I		I		I		I		I	I	I	I	I	I: Every 6 Months
Check plug connections for tight fit						I				I			I		I		I: Every 12 Months
Visually inspect all electrical cables for chaffing						I				I			I		I		I: Every 12 Months
Functional test for Air Conditioning Unit						I				I			I		I		I: Every 12 Months
Check function of the reversing valve						I				I			I		I		I: Every 12 Months
Examines the cooling fins of the frequency converter for contamination and clean as required						I				I			I		I		I: Every 12 Months
Test the insulation resistance of the unit				I		I		I		I		I	I	I	I	I	I: Every 6 Months
Check torque of all the cable glands						I				I			I		I		I: Every 12 Months
Check pressures and temperatures						I				I			I		I		I: Every 12 Months

Maintenance Schedule																
[Legend: C-Clean, D-Drain, I-Inspect and adjust/correct/replace/top-up, if required, L-Lubricate/Grease, O-Overhaul, RR-Repair, R-Replace, T-Tighten to specific torque]																
COMPONENTS/ASSEMBLIES	Repeat the Instructions After Distance Covered in Kilometers/Month Time Period in Service (Whichever is Earlier)															
	200000 km/60 Months	240000 km/72 Months	280000 Km/84 Months	320000 Km/96 Months	360000 Km/108 Months	400000 Km/120 Months	440000 Km/132 Months	480000 Km/144 Months	520000 Km/156 Months	560000 Km/168 Months	600000 Km/180 Months	640000 Km/192 Months	680000 Km/204 Months	720000 Km/216 Months	760000 Km/228 Months	REMARKS Kms/Months Whichever is earlier
AIR CONDITIONING SYSTEM																
Check high pressure and low pressure switches	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 12 Months
Check oil level in compressor	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 6 Months
Check condenser fan for function	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 6 Months
Check evaporator fan for function	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 6 Months
Check plug connections for tight fit	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 12 Months
Visually inspect all electrical cables for chaffing	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 12 Months
Functional test for Air Conditioning Unit	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 12 Months
Check function of the reversing valve	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 12 Months
Examines the cooling fins of the frequency converter for contamination and clean as required	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 12 Months
Test the insulation resistance of the unit	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 6 Months
Check torque of all the cable glands	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 12 Months
Check pressures and temperatures	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 12 Months

Maintenance Schedule																	
[Legend: C-Clean, D-Drain, I-Inspect and adjust/correct/replace/top-up, if required, L-Lubricate/Grease, O-Overhaul, RR-Repair, R-Replace, T-Tighten to specific torque]																	
COMPONENTS/ASSEMBLIES	Repeat the Instructions After Distance Covered in Kilometers/Month Time Period in Service (Whichever is Earlier)																REMARKS Kms/Months Whichever is earlier
	Daily	10 Days	10000 Km/3 Months	20000 Km/6 Months	30000 Km/9 Months	40000 Km/12 Months	50000 Km/15 Months	60000 Km/18 Months	70000 Km/21 Months	80000 Km/24 Months	90000 Km/27 Months	100000 Km/30 Months	120000 Km/36 Months	140000 km/42 Months	160000 km/48 Months	180000 km/54 Months	
BATTERY COOLING SYSTEM																	
Check condenser coil assembly for any leakages or damage and Clean				I/C		I/C		I/C		I/C		I/C	I/C	I/C	I/C	I/C	I/C: 20000 Kms/3 Months
Check operation of radiator fan motor If motor speed found low or abnormal noise observed then to be replaced				I		I		I		I		I	I	I	I	I	I: 20000 Kms/3 Months
Check compressor for any abnormal noise				I		I		I		I		I	I	I	I	I	I: 20000 Kms/3 Months
Check water pump functioning and leakages at joints				I		I		I		I		I	I	I	I	I	I: 20000 Kms/3 Months
Check refrigerant by fixing pressure gauge at suction and discharge end								I					I			I	I: 60000 Kms/12 Months
Check the coolant level				I		R		I		R		I	R	I	R	I	I: 20000 Kms/3 Months R: 40000 Kms/6 Months
Check fuse and relays for loose fitment.						I				I			I		I		I: At 40000 Kms/6 Months
Check hose clamps for tightness						I				I			I		I		I: At 40000 Kms/6 Months
Check for refrigerant & coolant hoses for any leakage						I				I			I		I		I: At 40000 Kms/6 Months
Check the AV mounts for any damage						I				I			R		I		I: Every 40000 Kms/6 Months R: Every 120000 Kms/24 Months

Maintenance Schedule																
[Legend: C-Clean, D-Drain, I-Inspect and adjust/correct/replace/top-up, if required, L-Lubricate/Grease, O-Overhaul, RR-Repair, R-Replace, T-Tighten to specific torque]																
COMPONENTS/ASSEMBLIES	Repeat the Instructions After Distance Covered in Kilometers/Month Time Period in Service (Whichever is Earlier)															
	200000 km/60 Months	240000 km/72 Months	280000 Km/84 Months	320000 Km/96 Months	360000 Km/108 Months	400000 Km/120 Months	440000 Km/132 Months	480000 Km/144 Months	520000 Km/156 Months	560000 Km/168 Months	600000 Km/180 Months	640000 Km/192 Months	680000 Km/204 Months	720000 Km/216 Months	760000 Km/228 Months	REMARKS Kms/Months Whichever is earlier
BATTERY COOLING SYSTEM																
Check condenser coil assembly for any leakages or damage and Clean	I/C	I/C	I/C	I/C	I/C	I/C	I/C	I/C	I/C	I/C	I/C	I/C	I/C	I/C	I/C	I/C: 20000 Kms/3 Months
Check operation of condenser fan motor If motor speed found low or abnormal noise observed then to be replaced	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: 20000 Kms/3 Months
Check compressor for any abnormal noise	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: 20000 Kms/3 Months
Check water pump functioning and leakages at joints	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: 20000 Kms/3 Months
Check refrigerant by fixing pressure gauge at suction and discharge end		I			I			I			I			I		I: 60000 Kms/12 Months
Check the coolant level	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	I: 20000 Kms/3 Months R: 40000 Kms/6 Months
Check fuse and relays for loose fitment.	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: At 40000 Kms/6 Months
Check hose clamps for tightness	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: At 40000 Kms/6 Months
Check for refrigerant & coolant hoses for any leakage	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: At 40000 Kms/6 Months
Check the AV mounts for any damage	I	R	I	I	R	I	I	R	I	I	R	I	I	R	I	I: Every 40000 Kms/6 Months R: Every 120000 Kms/24 Months

Maintenance Schedule																	
[Legend: C-Clean, D-Drain, I-Inspect and adjust/correct/replace/top-up, if required, L-Lubricate/Grease, O-Overhaul, RR-Repair, R-Replace, T-Tighten to specific torque]																	
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BATTERY COOLING SYSTEM																	
Do Check cooling system for leaks.				I		I		I		I		I	I	I	I	I	I: Every 6 Months
Check the Refrigerant hose routing & fittings for anchorage, leaks & correct positioning.				I		I		I		I		I	I	I	I	I	I: Every 6 Months
Check the Relay & fuses.				I		I		I		I		I	I	I	I	I	I: Every 6 Months
Check the condition of electrical systems				I		I		I		I		I	I	I	I	I	I: Every 6 Months

Maintenance Schedule																
[Legend: C-Clean, D-Drain, I-Inspect and adjust/correct/replace/top-up, if required, L-Lubricate/Grease, O-Overhaul, RR-Repair, R-Replace, T-Tighten to specific torque]																
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BATTERY COOLING SYSTEM																
Do Check cooling system for leaks.	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 6 Months
Check the Refrigerant hose routing & fittings for anchorage, leaks & correct positioning.	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 6 Months
Check the Relay & fuses.	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 6 Months
Check the condition of electrical systems	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 6 Months

Maintenance Schedule																	
[Legend: C-Clean, D-Drain, I-Inspect and adjust/correct/replace/top-up, if required, L-Lubricate/Grease, O-Overhaul, RR-Repair, R-Replace, T-Tighten to specific torque]																	
COMPONENTS/ASSEMBLIES	Repeat the Instructions After Distance Covered in Kilometers/Month Time Period in Service (Whichever is Earlier)																
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MISCELLANEOUS																	
Mounting and Functioning of the Sun Visors			I	I	I	I	I	I	I	I	I	I	I	I	I		I: Every 10000 Kms
Functioning of the Accelerator			I	I	I	I	I	I	I	I	I	I	I	I	I		I: Every 10000 Kms
Accelerator Pedal Cleaning by Air			C	C	C	C	C	C	C	C	C	C	C	C	C	C	C: Every 10000 Kms
Body Mounting and Outrigger Bracket Bolts										T					T		T: Every 80000 Kms
External and Internal Body Panels			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
Mounting and Functioning of the Driver and Passenger Seats			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
Driver seat Slide rail			L	L	L	L	L	L	L	L	L	L	L	L	L	L	L: Every 3 Months
Inspection of Driver and Passenger Seats bolt and nut (Tighten if Required)			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 3 Months
Cantilevers and Handrails Joint Bolts			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
All Glass and Mirrors	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Daily
Floor Covering and Roof Panels		I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10 Days
Visual Under Body Inspection For Structure Welding Joints/Ply Board Condition		I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10 Days
Inspect pressure gauge mounted on fire extinguishers in saloon area	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Daily Replace if needle is in RED zone

Maintenance Schedule																
[Legend: C-Clean, D-Drain, I-Inspect and adjust/correct/replace/top-up, if required, L-Lubricate/Grease, O-Overhaul, RR-Repair, R-Replace, T-Tighten to specific torque]																
COMPONENTS/ASSEMBLIES	Repeat the Instructions After Distance Covered in Kilometers/Month Time Period in Service (Whichever is Earlier)															
	200000 km/60 Months	240000 km/72 Months	280000 Km/84 Months	320000 Km/96 Months	360000 Km/108 Months	400000 Km/120 Months	440000 Km/132 Months	480000 Km/144 Months	520000 Km/156 Months	560000 Km/168 Months	600000 Km/180 Months	640000 Km/192 Months	680000 Km/204 Months	720000 Km/216 Months	760000 Km/228 Months	REMARKS Kms/Months Whichever is earlier
MISCELLANEOUS																
Mounting and Functioning of the Sun Visors	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
Functioning of the Accelerator	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
Accelerator Pedal Cleaning by Air	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C: Every 10000 Kms
Body Mounting and Outrigger Bracket Bolts		T		T		T		T		T		T		T		T: Every 80000 Kms
External and Internal Body Panels	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
Mounting and Functioning of the Driver and Passenger Seats	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10000 Kms
Driver seat Slide rail	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L: Every 3 Months
Inspection of Driver and Passenger Seats bolt and nut (Tighten if Required)	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 3 Months
Cantilevers and Handrails Joint Bolts	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	I: Every 10000 Kms
All Glass and Mirrors	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Daily
Floor Covering and Roof Panels		I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10 Days
Visual Under Body Inspection For Structure Welding Joints/Ply Board Condition		I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Every 10 Days
Inspect pressure gauge mounted on fire extinguishers in saloon area	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I: Daily Replace if needle is in RED zone

MAINTENANCE RECORD

This section is used to maintain the maintenance records of your vehicle. Please fill the following form at every schedule or unscheduled maintenance of your vehicle.

SR. No.	Service Date	Kms Done	Scheduled Service	Service Station	Jobs Performed	Total Cost	Remarks
1			Yes/No				
2			Yes/No				
3			Yes/No				
4			Yes/No				
5			Yes/No				
6			Yes/No				
7			Yes/No				
8			Yes/No				

ECOLIFE

JBM Group
Our milestones are touchstones

WARRANTY REGISTRATION FORM

ECOLIFE

Warranty Registration Form

Owner Name		**Vehicle Purchase Date**	
Vehicle Identification Number		**Motor Serial Number**	
Registration Number		**Battery Details**	
Basic Warranty Expiry Km		**Basic Warranty Expiry Date**	

Owner's Name -
Owner's Address -
Pin Code -
Contact No. -

JBM Electric Vehicles Private Limited
Plot no. 118, Sector- 59
HSIIDC, Ballabhgarh
Faridabad-121004, Haryana

Sign and Stamp
JBM Electric Vehicles Private Limited
(Warranty and Service Department)

Owner's Sign and Date

CUSTOMER ASSISTANCE HELPLINE

We recommend that you take some time to get to know more about the driving style and maintenance of your vehicle by reading this book. In the event of any mechanical and electrical breakdown, or traffic accident of your vehicle, all you have to do is call our 24*7 helpline number to avail roadside assistance.

Corporate Office - Head - After Sales,
JBM ELECTRIC VEHICLES PRIVATE LIMITED
Plot No.118, Sector 59
HSIIDC, Ballabhgarh
Faridabad - 121 004
Haryana
Email ID -
techpub.support@jbmgroup.com

Manufacturing Plant –
JBM ELECTRIC VEHICLES PRIVATE LIMITED
81 KM Milestone, Delhi -Agra Highway NH 2,
Village-Banchari, Tehsil-Hodel, District - Palwal;
Haryana, 121106

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