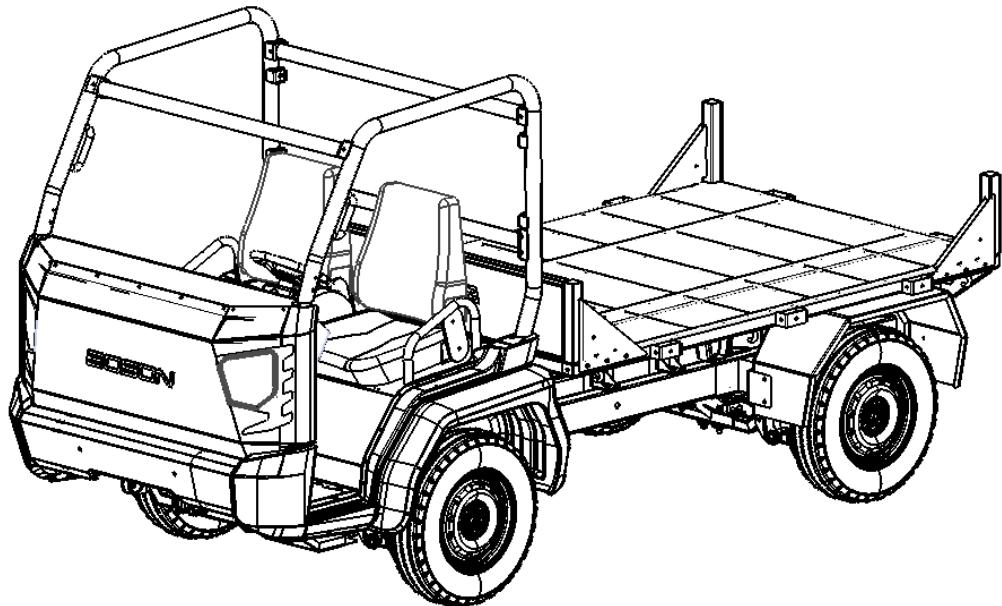




ELECTRIC LIGHT UTILITY VEHICLE LX40: OPERATOR'S HANDBOOK



BMPL/UM/001

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A Message from Boson

CHAPTER 1: INTRODUCTION

1.1 A Message from Boson

Dear Valued Customer,

On behalf of everyone at Boson Motors, I extend our heartfelt gratitude for choosing the LX40 Electric Light Utility Vehicle. With your purchase, you contribute to a greener tomorrow.

We started out with a vision to revolutionize mobility using cutting-edge technology and eco-sensitive practices. Therefore, as we undertake this journey together, you become a part of a community whose goal is minimizing carbon emissions and promoting cleaner modes of transportation.

This manual is your comprehensive guide to understanding the capabilities, features, and maintenance requirements of your vehicle, highlighting all the advantages of owning an LX40 from Boson Motors. Please read our provided resources for an optimal driving experience.

Thank you for choosing Boson Motors. We look forward to driving the future together.

Warm regards,

Arun Seelam
CEO and Co-Founder
Boson Motors

Using This Manual

1.2 Using This Manual

This manual contains a great deal of information you need to know about your LX40. We advise you to read it carefully and familiarize yourself with the vehicle before driving. For your safety, follow the instructions and warnings contained in this manual. 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 warranty.

1.3 Document Applicability

This Owner's Manual applies to all 2025 model year Boson LX40 vehicles. Owner information is updated regularly to reflect updates to your vehicle. However, in some cases, recently-released features may not be described in this manual. For the latest version of this manual with up-to-date information, visit our website at www.bosonmotors.com.

1.4 Illustrations

Illustrations are provided for the purpose of locating components or features described in the accompanying text. Dependent on vehicle specification, software version, region of purchase, and specific settings, your vehicle may appear slightly different. However, the essential information shown by the illustrations is correct.

1.5 Errors or Inaccuracies

All specifications and descriptions are known to be accurate at time of publishing. However, because continuous improvement is a goal at Boson, we reserve the right to make changes at any time, without notice and without obligation.

1.6 Trademarks

Boson, Boson Motors, and the Boson logo are registered trademarks of Boson Motors Inc.

All other trademarks contained in this document are the property of their respective owners and their use herein does not imply sponsorship or endorsement of their products or services. The unauthorized use of any trademark displayed in this document or on the vehicle is strictly prohibited.

Introduction

Symbols Glossary

1.7 Symbols Glossary

The following symbols used within this manual call your attention to specific types of information:

Symbol	Definition
	WARNING: Indicates either an instruction which must be followed precisely, or information that should be considered with great care in order to avoid the possibility of personal injury or injury to others.
	CAUTION: Indicates either an instruction which must be followed precisely, or information that should be considered with great care in order to avoid the possibility of damage to your vehicle.
	NOTE: Provides additional helpful information or instructions.
	ENVIRONMENTAL: Identifies instructions that should be observed to avoid unnecessary damage to the environment.

1.8 Quality Control

There may be a few miles/kilometers on the odometer when you take delivery of your new LX40. This is a result of the comprehensive process used to ensure the quality of your vehicle.

1.9 Vehicle Modifications

 *Boson does not recommend installing non-approved parts and accessories or performing non-approved vehicle modifications. Doing so can negatively affect your vehicle's performance and the safety of its occupants. The warranty does not cover any damage caused by using or installing non-approved parts or accessories or performing non-approved modifications.*



Boson will not accept liability for death, injury, or damage that occurs as the result of using or installing non-approved parts or accessories, or making non-approved modifications.

For more information, see [Vehicle Modifications](#).



If you or a passenger have a disability which may require modification to the vehicle, please contact Boson before any modifications are made.

1.10 Body Repairs

If your vehicle is damaged in a collision, it is important to ensure your vehicle is repaired at an Authorized Boson Service Center using only genuine Boson parts. For more information, see [Body and Chassis](#).

Electric Vehicle Precautions

1.11 Electric Vehicle Precautions

 Your LX40 is a 100% electric vehicle, utilizing high-voltage DC and AC systems as well as a 12-volt system. Both the DC and AC high-voltage systems are very dangerous and can cause personal injury, severe burns, electric shock, and even fatal injury unless appropriate precautions are taken.

Labels are affixed to a number of the high-voltage components found on your vehicle to alert you to any possible risks. Always observe and obey the instructions on labels attached to components on the vehicle; they are there for your safety.



This symbol indicates risk of electrical shock if a component is mishandled. Proceed with caution when working in this area.



Do not touch or attempt to remove or replace any high-voltage parts, wiring (identified by the orange outer sleevings), or connectors.



If the vehicle is involved in an accident, do not touch any high-voltage wiring or the components connected to the wiring.



If a vehicle fire occurs, evacuate the vehicle immediately and contact the emergency services. Only if safe to do so, try to extinguish the fire with a Class D powder-type fire extinguisher.

 *Contact emergency services immediately if you notice leaks from or damage to the high-voltage battery. High-voltage battery fluids are dangerous and potentially toxic. Avoid contact with any battery leaks or fluids. If the battery fluid contacts your skin or eyes, immediately wash it off thoroughly with water and seek immediate medical attention.*

 *The vehicle contains a sealed high-voltage battery. If the battery is disposed of improperly, there is a risk of severe burns and electrical shock that may result in serious injury or death, and there is also a risk of environmental damage.*

Data Recording

1.12 Data Recording

1.12.1 Service data recording

Service Data Recorders in your vehicle can collect and store diagnostic information about your vehicle. This potentially includes information about the performance or status of various systems and modules in the vehicle such as the high-voltage battery, electric motors, accelerator, steering, or brakes. To properly diagnose and service your vehicle, an Authorized Boson Service Center or other service facilities may access vehicle diagnostic information through a direct connection to your vehicle.

1.12.2 Over-the-air updates (if equipped)

Additional services contractually agreed upon with the client (such as wireless software updates) allow the transmission of vehicle data to and from the vehicle.

1.12.3 Telematics data services (if equipped)

Telematics data recorders in your vehicle actively collect vehicle data and securely transmit it to third-party vehicle management systems. This data includes location, vehicle status, diagnostic information, and could potentially include details about the status of various systems in your vehicle.

Personal Information and Data Sharing

1.13 Personal Information and Data Sharing

1.13.1 Boson Privacy Policy

For information on how Boson uses and protects your personal information, visit our website at: www.bosonmotors.com.

1.13.2 Information security

To protect your corporate entity's data from unauthorized use, Boson Motors Inc. upholds relevant security standards. To alleviate activities which may compromise this data, please adhere to your company's information security policies.

Vehicle Overview

Vehicle Certification Label

CHAPTER 2: VEHICLE OVERVIEW

2.1 Vehicle Certification Label

The vehicle certification label is a metal plate located on the driver's side of the chassis as shown in Figure 2-1.

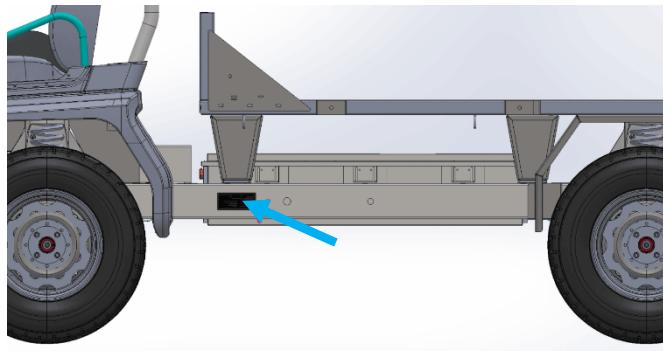


Figure 2-1: Vehicle certification label location

BOSON	MANUFACTURER	BOSON MOTORS
	VEHICLE MODEL	LX 40
PERIOD OF MANUFACTURING		XX - XXXX
GROSS VEHICLE WEIGHT RATING (GVWR)	4755 LBS	
PAYOUT	2000 LBS	
POWERTRAIN	96V BATTERY	
TYPE / CLASSIFICATION	ELECTRIC POWERED EQUIPMENT	
TRANSMISSION TYPE	ELECTRIC POWERED AUTOMATIC DRIVE	
COUNTRY OF MANUFACTURING	INDIA	
VIN	XXXXXXXXXXXXXXXXXX	

Figure 2-2: Example vehicle certification label

 The label images in this manual are used as examples only. Always refer to the physical labels on your vehicle for information.

Vehicle Certification Label

The vehicle certification label contains the following important information:

- Manufacturer of the vehicle
- Date of vehicle manufacture (MM/YY)
- Gross Vehicle Weight Rating (GVWR)

 *GVWR is the maximum allowable weight of the fully-loaded vehicle. This includes all options, equipment, passengers, and cargo.*

- Gross Axle Weight Rating (GAWR)

 *GAWR is the maximum allowable weight that a single axle (front or rear) can carry.*

- Vehicle Identification Number (VIN)

 *Never exceed the GVWR or the GAWR specified on the vehicle certification label.*



Exceeding the certification label vehicle weight limits can adversely affect the performance and handling of the vehicle. Overloading may also damage vehicle components and can result in a loss of control of the vehicle, serious personal injury, or death.



Do not use replacement tires with lower load-carrying capacities than the original tires, as this may lower the vehicle's GVWR and GAWR limitations. Replacement tires with a higher limit than the original tires do not increase the GVWR and GAWR limitations.

2.1.1 Vehicle Identification Number (VIN)

Your vehicle is uniquely identified by its VIN, which is located on the vehicle certification label. The VIN is essential for registering the vehicle, servicing, ordering parts, and verifying vehicle history and ownership.

Vehicle Overview

LX40 Models

2.2 LX40 Models

 *Always ensure that your vehicle's load does not exceed the specified capacity for your model. Overloading the vehicle can lead to reduced performance, and increased wear on components, and may pose a safety risk. See [Weights](#).*

Boson Motors offers the following models of the LX40, each tailored to meet specific needs and preferences. These variants differ in battery capacity, drivetrain configurations, and amenities, providing options for enhanced range, performance, and comfort. Each model supports various loading capacities, customizable to meet specific operational requirements.

- **Standard Range:** Designed for efficiency and practicality. Offers balanced range and power suited for daily commuting and light utility tasks.
- **Extended Range:** Upgraded battery pack allows for longer trips and demanding utility tasks with less frequent recharging.
- **Performance:** Engineered for enthusiasts. Delivers increased power and acceleration, offering an exhilarating driving experience while maintaining impressive efficiency.



All LX40 models come with regenerative braking systems, contributing to energy efficiency. For more information, see [Regenerative braking](#).

2.3 Vehicle Specifications

2.3.1 Dimensions

The base model specifications of the LX40 are depicted in this section. For more detailed information on each model, please consult Boson Motors' official documentation available at www.bosonmotors.com or through your Authorized Boson Dealer.

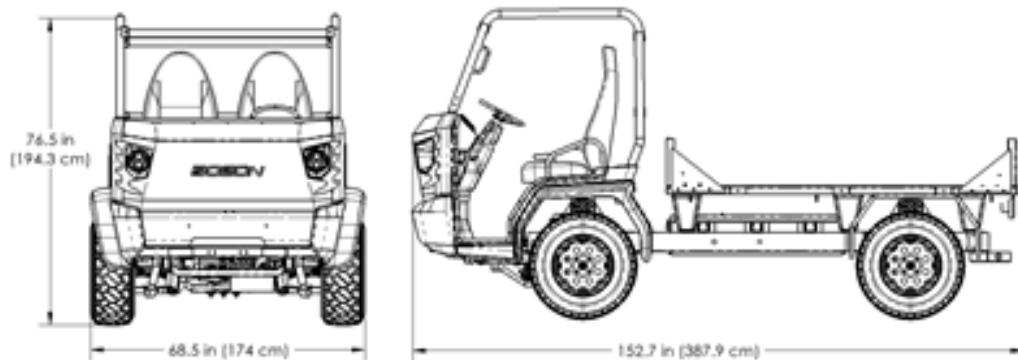


Figure 2-3: Vehicle dimensions

Vehicle Overview

Vehicle Specifications

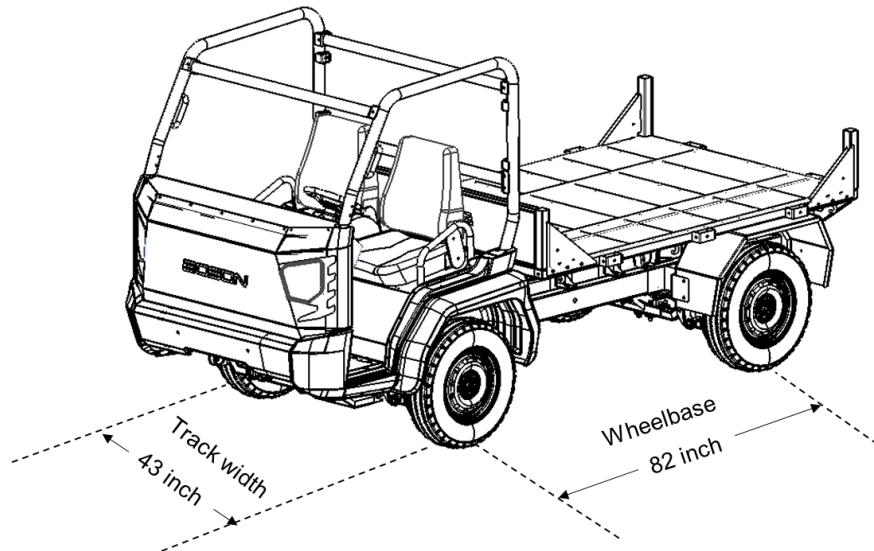


Figure 2-4: Track width and wheelbase dimensions

Vehicle Overview

Vehicle Specifications

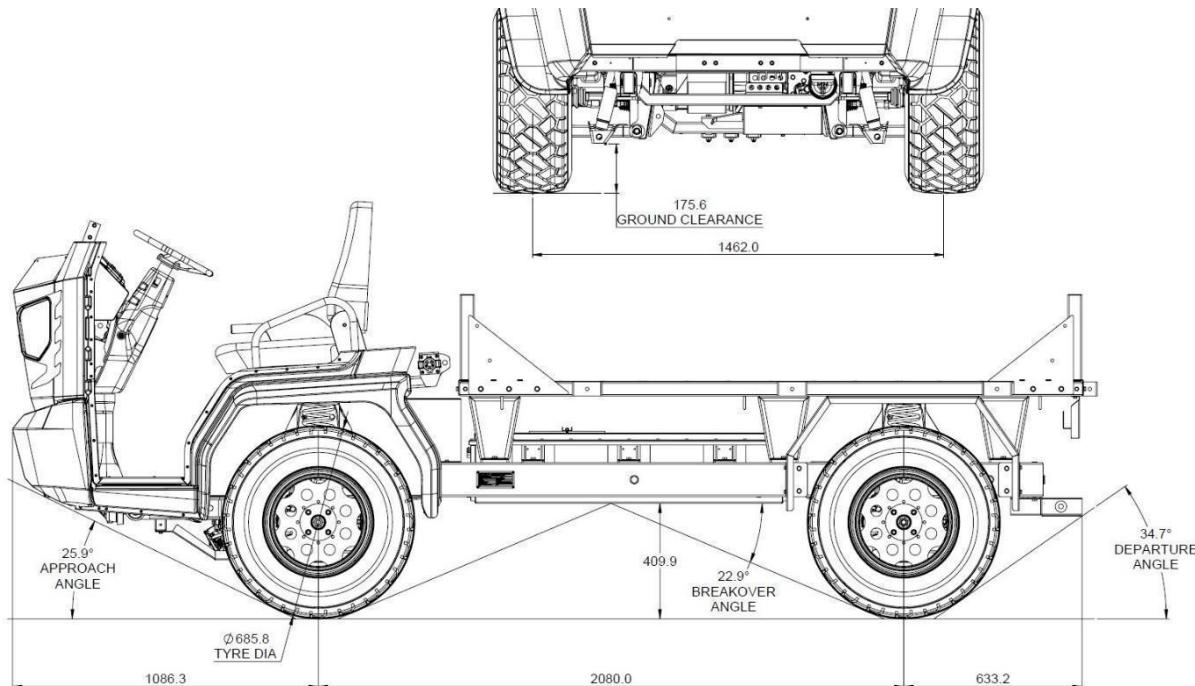


Figure 2-5: Angular dimensions

Vehicle Overview

Vehicle Specifications

Parameter	Value
Overall dimensions	125.7" l x 68.5" w x 76.5" h
Wheelbase	82"
Bed	85.9" x 57"
Approach angle	25.9°
Departure angle	34.7°
Gradeability	27% (15°)

2.3.2 Weights

Parameter	Value
Curb Weight*	2755 lb (1250 kg)
Gross Vehicle Weight Rating (GVWR)	4255 lb (1930 kg)
Gross Axle Weight Rating (GAWR)	Front: 1585 lb (719 kg) Rear: 1743 lb (790 kg)
Maximum payload	2000 lb (907 kg)
Maximum trailer tongue weight rating	150 lb (68 kg)
Maximum trailer towing	2000 lb (907 kg)
Gross Combined Weight Rating (GCWR)	6755 lb (3064 kg)

* Curb Weight = Weight of vehicle with correct fluid levels, no occupants, and no cargo

 *The maximum payload (including equipment, cargo, and passengers) should never exceed the value listed above. Overloading the vehicle negatively impacts braking and handling, which could lead to personal injury or damage to the vehicle.*

Vehicle Specifications

2.3.3 Capabilities

Parameter	Value
Seating capacity	2 people
Motor type	220V AC
Peak motor torque	120 Nm
Top speed	22 mph (35 km/h)
Drive system	4WD
Front/rear suspension	Double wishbone

Vehicle Overview

Vehicle Specifications

2.3.4 Wheels and tires

Wheel Type	Position	Size	Offset
14"	Front	14x7	4" backspacing
	Rear	14x7	4" backspacing

Lug nut torque	110 nM
Lug nut size	M12x1.25
Note: For details on where to lift your vehicle, see Lifting the Vehicle .	

Tire Type	Position	Size	Load Index/Speed Rating
Standard production-installed tires			
14" Road Venture MT All-season	Front	27X8.5 R14	95Q
	Rear	27X8.5 R14	95Q

Vehicle Specifications

2.3.5 Tire pressures

Recommended COLD Inflation Pressures

Tire pressures may vary depending on the type of tires fitted to your vehicle. Refer to the tire pressures printed on the Tire and Loading Information label. This label is located on the body side panel on the driver's side of the vehicle. See [Tire Information and Loading Label](#).

2.3.6 Fluids

Brake fluid	DOT 4	Reservoir capacity: 250 mL
Gearbox oil	80W-90	Reservoir capacity: 750 mL

Vehicle Overview
Vehicle Specifications

2.3.7 12V Battery

Type	86 flooded
Quantity	1
Rating	525 CCA / 95 min reserve
Voltage and polarity	12V Negative (-) ground
Service life	~3-5 years

2.3.8 High-voltage battery (base model)

Type	Lithium ferrophosphate (LFP)
Voltage and capacity	96V, 19.4kWh
Power output	27 HP
Range	72 miles (115 km)
Time to 80% charge	Level 1 - 120V: 11 to 12 hours Level 2 - 240V: 5 to 6 hours
Operating temperature	23°F to 113°F (-5°C to 45°C)
Service life	124,000 miles (200,000 km) or ~1,600 cycles (~5 years)

Major Assemblies

2.4 Major Assemblies

The LX40 has four major assemblies as shown in Figure 2-6.

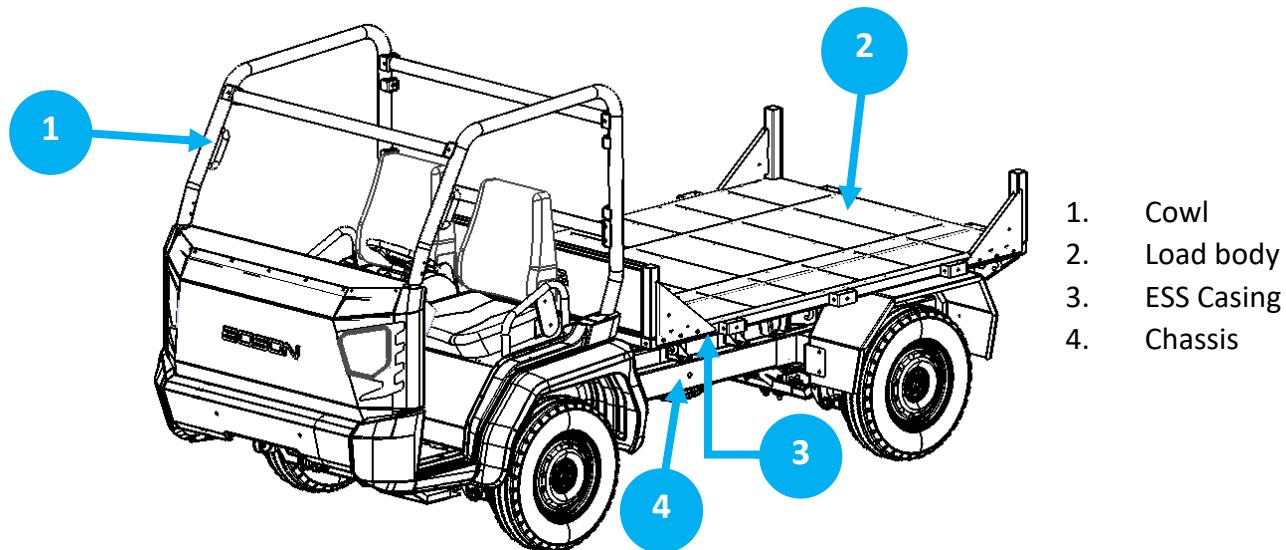


Figure 2-6: Major assemblies

2.4.1 Cowl

The cowl as shown in Figure 2-7 consists of the driver's cabin and safety frame, providing structural support and housing for driver and passenger seats. It also integrates ergonomic and safety features, such as the roll-over protection frame.

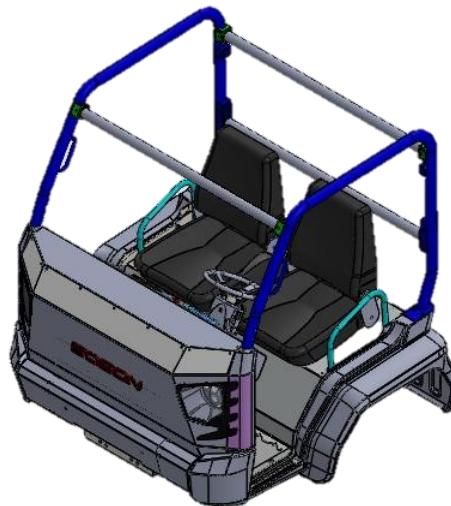


Figure 2-7: Cowl

Major Assemblies

2.4.2 Load body

The load body as shown in Figure 2-8 is designed for carrying goods or equipment, featuring a durable and reinforced platform that ensures stability and strength for various payload conditions.

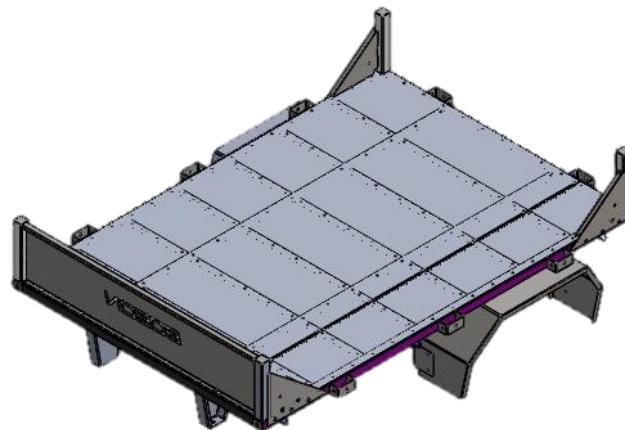


Figure 2-8: Load body

2.4.3 Energy Storage System (ESS) casing

The ESS casing as shown in Figure 2-9 securely houses the vehicle's battery pack, ensuring protection from environmental factors while facilitating efficient thermal management and safety during operation.

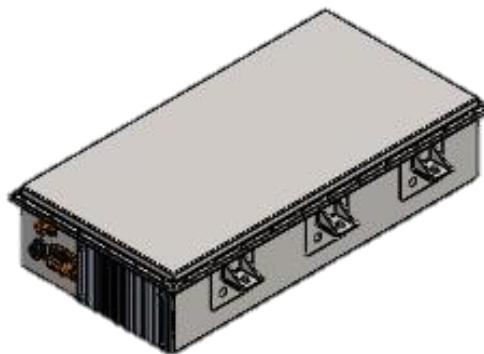


Figure 2-9: ESS casing

Major Assemblies

2.4.4 Chassis

The chassis as shown in Figure 2-10 serves as the primary load-bearing framework for the vehicle, accommodating the suspension system, drivetrain components, and mounting points for other assemblies.

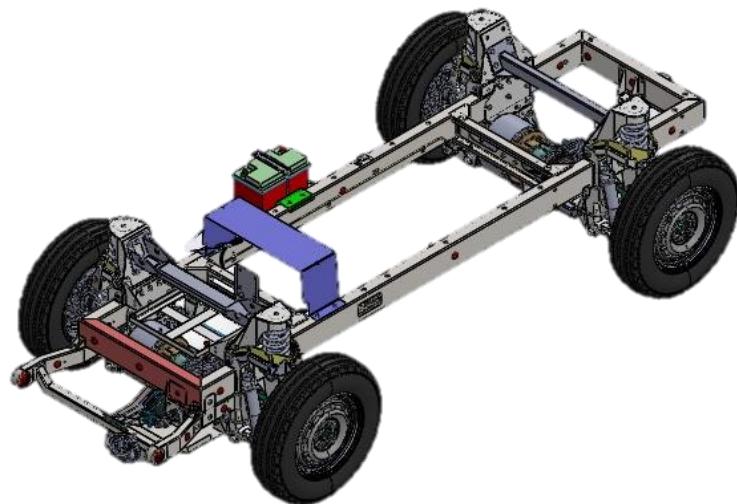


Figure 2-10: Chassis

Personal Protective Equipment (PPE)

CHAPTER 3: SEATING AND SAFETY

3.1 Personal Protective Equipment (PPE)

 *Boson strongly recommends that all vehicle occupants wear a properly-fitted motorcycle helmet, especially when operating in off-road conditions. Failure to do so increases the risk of severe injury or death in the event of a collision.*

 *Boson strongly recommends that all vehicle occupants wear protective eye gear. Eye exposure to dust, rain, or other debris could cause injury or compromise your vision.*



Do not wear loose, flowing, or trailing garments in the vehicle, especially in off-road environments.



Local and state regulations can require various gear when operating a vehicle off-road. Check your area's laws to determine what gear you are required to wear.

Ensure that your helmet meets your country's federal laws on minimum safety standards:

United States: Federal Motor Vehicle Safety Standard (FMVSS) 218

For more information, visit: www.nhtsa.gov

Seating and Safety

Seating

3.2 Seating

 *This vehicle is designed with two seats to carry the driver and one passenger. NEVER carry anyone in the load bed of the vehicle. In the event of a collision, sudden stop, or sharp turn, individuals in the load bed are at high risk of being thrown from the vehicle.*

 *In many areas, it is illegal to ride in the bed of a vehicle. Violating these laws can result in severe fines and legal repercussions.*

3.3 Seating Children

 *Boson Motors prohibits the use of child safety seats or booster seats with this vehicle. NEVER attempt to install or use such devices with the vehicle. Failure to heed this warning could result in serious injury or death.*

 *NEVER allow a baby or infant to be held or carried on the lap. The force of a collision can increase effective body weight by as much as 30 times, making it impossible to hold on to the child.*

 *Make sure the vehicle's seat belt is properly fitted onto the child, the shoulder portion of the belt is away from the face and neck, and the lap portion of the belt lies across the child's lap, not over the stomach. If the child cannot be safely and properly restrained by the seat belt, DO NOT allow the child in the vehicle.*

 *If in doubt about the fit of a seat belt on a child, DO NOT allow the child in the vehicle.*

3.4 Seat Belt Warnings

-  *Ensure that all seat belts are worn correctly. An improperly-worn seat belt increases the risk of injury or death in a collision.*
-  *In a rollover crash, an unbelted person is significantly more likely to die than a person wearing a seat belt.*
-  *Always wear the seat belt with the lap section of the belt as low as possible and snug across your hips.*
-  *Do not wear the seat belt with any part of the strap twisted.*
-  *Never wear the seat belt with the shoulder belt under your arm.*

 *Do not wear seat belts over hard, fragile, or sharp items in clothing (e.g., pens, keys, eyeglasses). Pressure from the seat belt on such items can cause personal injury.*

 *Each seat belt should only be used by one occupant. Never attempt to use a seat belt with a child or another person in your lap.*

 *If a seat belt cannot be fastened securely because it is not long enough, only use Boson-approved seat belt extenders.*

 *Do not make modifications or additions to the seat belt assembly that prevent the mechanism from taking up or removing slack. A slack belt greatly reduces the occupant's protection.*

Seating and Safety

Seat Belt Warnings

 *Do not attempt to remove, repair, disassemble, or install seat belts. Any necessary repairs should be done by a Boson service center. Improper handling may result in the seat belts failing to operate correctly.*

 *Avoid contaminating the seat belt assembly with any liquids, chemicals, dirt, grit, or cleaning products. Contamination can affect the condition and function of the assembly.*

 *If a seat belt shows signs of wear (such as fraying), or appears to be cut or otherwise damaged, have it inspected or replaced by a Boson service center.*

 *If a seat belt fails to latch or does not fully retract when not in use, contact an Authorized Boson Service Center to have the assembly inspected and possibly replaced.*

 *Any seat belts that were in use during a collision must be inspected or replaced by an Authorized Boson Service Center, even if there is no apparent damage to the assembly.*

3.5 Wearing Seat Belts

 *Seat belts should be worn by all occupants for every journey, no matter the driving distance. Failure to do so greatly increases the risk of death or serious injury in the event of a collision.*

Seat belts are the most effective means of restraining vehicle occupants from impact forces, which, in turn, minimizes the danger of injury from interior impacts and the effects of whiplash. Therefore, wearing a seat belt is required by law in most states.

Both seating positions are equipped with three-point inertia retractor seat belts. Inertia retractor seat belts are tensioned automatically and allow freedom of movement during normal driving conditions. Whenever your vehicle experiences the force associated with hard acceleration,

braking, cornering, or on impact in a collision, the seat belt retractor automatically locks, preventing movement of occupants. The retractor may also lock when driving on steep hills or slopes.

Fastening the Seat Belt

3.6 Fastening the Seat Belt

1. Ensure the seat is positioned so that you are seated upright and your arms and legs can easily reach the steering wheel and pedals.
2. Pull the seat belt out smoothly, ensuring that it lays flat across the pelvis, chest, and mid-point of the collar bone between the neck and shoulder.
3. Insert the latch plate into the buckle and press down until you hear a “click”, indicating it is securely locked in place.
4. Pull the seat belt to check that it is securely fastened.
5. Pull the shoulder part of the seat belt towards the retractor to remove any excess slack.

To release the seat belt, press the red button on the buckle. The belt retracts automatically.

3.7 Using Seat Belts When Pregnant



Pregnant women should always wear seat belts to protect themselves and their unborn child.



Never place anything between you and the seat belt to cushion the impact in the event of a collision.

The lap portion of the belt should be worn as low as possible across the hips, not the waist. Position the shoulder part of the belt between the breasts and to the side of the abdomen. Ensure that the seat belt has no slack and is not twisted. If you have any concerns about wearing seat belts, consult with your physician.

3.8 Environmental Safety

 While the LX40 is designed to be driven off-road, it must be operated responsibly. Engaging in racing or attempting stunts with the vehicle can pose serious safety risks to you, your passenger, and others on the road.

The LX40 is designed to perform in a variety of environmental conditions. Follow the guidelines and instructions in this section for safe operation in different climates and terrains.

3.8.1 Temperature conditions

 Your vehicle's optimal temperature range is 23°F to 113°F (-5°C to 45°C). To avoid damage, do not operate the vehicle in temperature conditions outside of this range.

Consider the weather, temperature, and riding environment before operating your vehicle, and ensure you and your passenger are dressed appropriately for these conditions.

3.8.2 Weather conditions

Humidity and precipitation: The vehicle's electrical components are securely encased to prevent moisture ingress, ensuring safe operation during rain. In areas of high humidity, periodic visual checks of electrical connections for corrosion are recommended as part of regular maintenance.

Rain or wet surfaces: It is strongly advised to reduce speed and allow for increased stopping distances during wet conditions to prevent hydroplaning.

Seating and Safety Environmental Safety

Snow or ice: When operating your vehicle in snowy or icy conditions, the use of winter tires is recommended for enhanced grip and safety. Contact Boson for recommendations on winter tires (see [Contacting Boson](#)).

Clear snow and ice from the vehicle's lights to ensure the proper functioning of these features. Exercise caution and reduce speed to navigate safely.

Dust or sand: In dusty or sandy environments, regular maintenance is crucial to prevent abrasive particles from affecting mechanical components and electronics. Protective covers and frequent cleaning can help mitigate the impact of these particles.

Regulate your speed and drive cautiously, as dust or sand can decrease tire traction.

Extreme weather events: During extreme weather conditions such as floods, hurricanes, or heavy snowfall, it is strongly recommended to avoid operating the vehicle. If the vehicle must be used, ensure the battery pack is sufficiently charged and that all systems are functioning correctly before use.

3.8.3 Driving on varied terrain

 *Do not drive through water that exceeds the height of the bottom of the vehicle.*

Avoid driving through standing water, as its true depth can be deceptive. Even partial submersion of the high-voltage battery pack can cause severe damage to the vehicle's electrical systems.

Slopes or hilly terrain: Your vehicle can ascend slopes, though performance on steep inclines may depend on factors such as load weight and battery charge. To ensure optimal performance, make sure the vehicle is properly loaded and the battery is fully charged.

Rough terrain: Reduce your speed and drive carefully on rough or uneven terrain (e.g., trails or rocky ground). Driving over bumps or depressions at high speeds can result in serious personal

injury, cause a loss of control, or damage the vehicle.

Seating and Safety

Environmental Safety

3.8.4 Rollover risk

 *Tipping the vehicle can result in death or serious injury and severe vehicle damage.*

 *Always wear a helmet when operating the vehicle in an aggressive manner or on uneven or rough terrain.*

To avoid tipping, follow these practices:

- Secure all cargo and do not overload the vehicle. Reduce the load when operating on slopes or rough ground.
- Drive slowly and cautiously when turning. Sharp turns could cause the vehicle to tip.
- Reduce speed and exercise extreme caution on hilly or rough terrain.
- Avoid sudden starts and stops when going uphill or downhill. Use caution when changing direction on slopes.

- Keep the front wheels straight at the crest of a hill or when driving over bumps.
- When descending a hill or slope, release the accelerator pedal and apply the brake pedal to reduce speed and maintain control.
- Stay alert for hidden hazards in the terrain, such as holes or rocks.
- Keep clear from areas such as drop-offs, ditches, embankments, cliffs, and bodies of water. The vehicle could unexpectedly roll over if a wheel goes over the edge, or if the edge gives way.
- Do not make unauthorized changes or modifications to the vehicle.



The potential tipping or rollover hazards listed in this manual are not a complete list.

3.9 Safety Labels

The safety labels shown in this section are placed in important areas on your vehicle to draw attention to potential safety hazards.

Wherever possible, this manual gives information on avoiding or identifying potential safety hazards. There can be more safety information contained on safety labels that is not reproduced in this manual.

Safety labels may contain a safety alert symbol or the words DANGER, WARNING, or CAUTION. These terms are generally defined as follows:

DANGER: Indicates a hazard which, if not avoided, will result in death or serious injury.

WARNING: Indicates a hazard which, if not avoided, could result in death or serious injury.

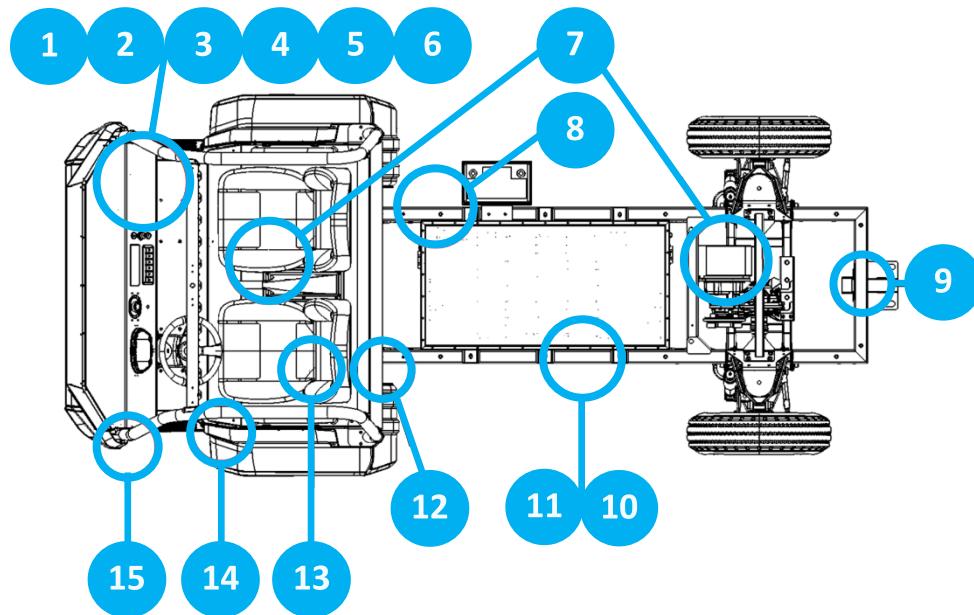
CAUTION: Indicates a hazard which, if not avoided, could result in injury or vehicle damage.

During vehicle inspections, note any missing or damaged safety labels and replace them. Use this manual for correct safety label placement. Contact Boson for replacement labels (see [Contacting Boson](#)).

3.9.1 Safety Label Locations

Figure 3-1 shows the locations of all the safety labels located on your vehicle. Read all safety labels before operating and always observe all instructions on the labels. If any label is missing or damaged, please contact a Boson dealer to have the label replaced.

Seating and Safety Safety Labels



1. Fuse box
2. Fuse box
3. Fuse box
4. Under dashboard
5. Dashboard
6. Dashboard
7. Under vehicle
8. 12V battery
9. Above tow hitch
10. High-voltage battery
11. High-voltage battery
12. Charge port
13. Under cab
14. Side panel
15. Side panel

Figure 3-1: Safety label locations

3.9.2 Safety label images



Label 1 (Fuse box)



Label 3 (Fuse box)



Label 2 (Fuse box)



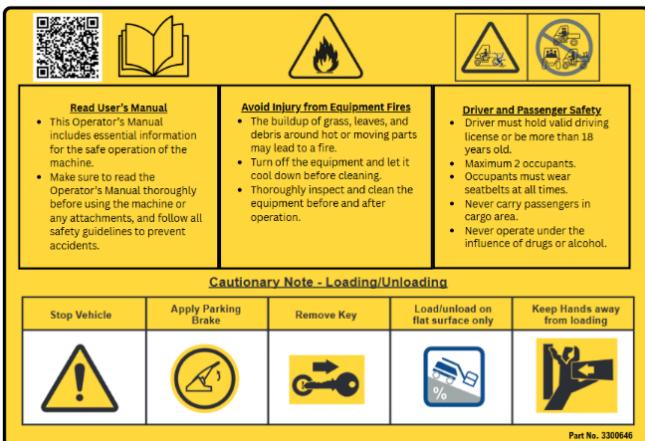
Label 4 (Under dashboard)

Seating and Safety Safety Labels

DO NOT PRESSURE WASH THE DASHBOARD AND FUSEBOX

Part No. 3300652

Label 5 (Dashboard)



Label 6 (Dashboard)



Label 7 (2 labels under vehicle in front and rear)



Label 8 (12V battery)



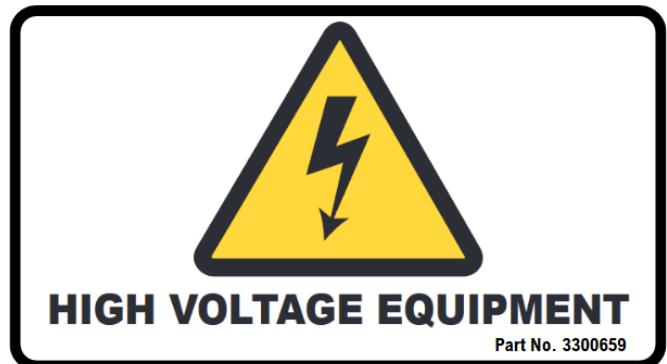
Label 9 (Above tow hitch)



Label 10 (Driver's side of high-voltage battery)



Label 11 (Driver's side of high-voltage battery)

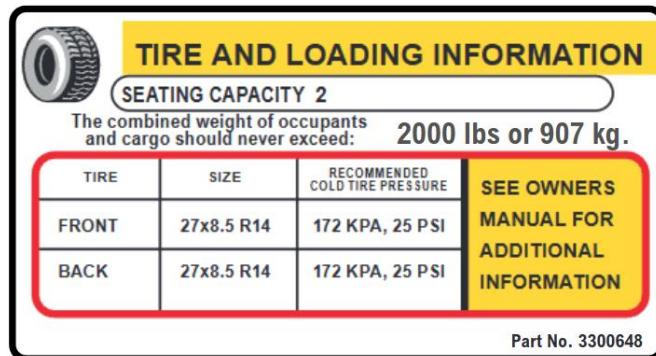


Label 12 (Charge port)

Seating and Safety Safety Labels



Label 13 (Under cab)



Label 14 (Side panel on driver's side)



Label 15 (Side panel on driver's side)

CHAPTER 4: OPERATING INSTRUCTIONS

4.1 Before Operating

 **Seat belts:** Always wear seat belts while the vehicle is ON. If you have a passenger, ensure they do the same, as seat belts significantly reduce the risk of injury in the event of a collision.

 **Stay alert:** Operate the vehicle with a heightened awareness of your surroundings. Due to its quiet operation, pedestrians and other vehicles might not always recognize its approach. Use vehicle horns judiciously to alert others when necessary.

 **Regulate your speed:** Always observe speed limits designated for the area of operation. Excessive speed reduces reaction time and increases the likelihood of a collision.

 **Do not drive while impaired:** Operating the vehicle under the influence of alcohol, drugs, or impairing medication is strictly prohibited. Impaired driving significantly increases the risk of accidents.

 **Adverse weather conditions:** Exercise caution and reduce speed when driving in conditions of reduced visibility or on slippery roads due to rain, snow, or ice.

 **Load capacity adherence:** Do not exceed the vehicle's specified load capacity, as overloading can affect stability and handling and could lead to a collision. See [Weights](#).

 **Child safety:** Never allow a child to operate the vehicle due to the risk of death or serious injury. Always supervise children in the vicinity of the vehicle closely.

Operating Instructions Before Operating



Operate responsibly: Engaging in racing or attempting stunts with the vehicle can pose serious safety risks to you, your passenger, and others on the road.

Operational safety guidelines:

- **Pre-drive checks:** Before starting your vehicle, conduct a routine check to ensure that all lights are functional and all tires are properly inflated.
- **Secure cargo:** Ensure that all cargo is securely fastened before moving the vehicle to prevent shifts that could affect vehicle stability.

4.2 Vehicle Controls

4.2.1 Driving controls



Figure 4-1: Dashboard controls

16. Display
17. Vehicle switches
18. Fuse box
19. Accelerator pedal
20. Brake pedal
21. Steering wheel

Operating Instructions Vehicle Controls



Figure 4-2: Controls and features

- 22. Passenger seat
- 23. Parking brake
- 24. Driver's seat

- 25. Seat belt
- 26. Seat position adjustment lever
- 27. Seat backrest adjustment lever

	Control Name	Function
1	Display	See Display .
2	Vehicle switches	See Vehicle switches .
3	Fuse box	Protects the vehicle's electrical system by breaking the circuit in case of overload or short circuit. See Fuses .
4	Accelerator pedal	Controls the vehicle's speed by increasing power to the motor when pressed.
5	Brake pedal	Slows down or stops the vehicle when pressed.
6	Steering wheel	Use to control the direction of the vehicle.
7	Passenger seat	Adjusts front-to-back and can be folded down (see 11 and 12 in this table).
8	Parking brake	Keeps the vehicle stationary when parked or in emergencies. Press and hold the button on the end of the lever, then pull the lever up to engage the brake or push down to release. The parking brake indicator will illuminate on the display when the parking brake is fully engaged. See Display .
9	Driver's seat	Adjusts front-to-back and can be folded down (see 11 and 12 in this table).

Operating Instructions

Vehicle Controls

	Control Name	Function
10	Seat belt	See <u>Seating and Safety</u> .
11	Seat position adjustment lever	Pull the lever and use your legs to push the seat forward or backward. Release the lever once the seat has been adjusted. Push on the seat to ensure it is locked in place.
12	Seat backrest adjustment lever	Pull the lever and push the seat to fold it down. Release the lever to lock the seat into place. Pull again to release the seat into an upright position.

4.3 Display



Figure 4-3: Display

Operating Instructions

Display

4.3.1 Time



Displays the current time.

To set the time, see [Mode and Set buttons](#).

4.3.2 Parking brake indicator



This indicator illuminates when the ignition is switched ON and the parking brake is engaged.

The indicator extinguishes when the parking brake is fully released.

For more information, see [Parking brake](#).

4.3.3 Warning indicators



If a warning icon illuminates, park the vehicle safely and turn the power OFF.

Contact Boson for further assistance.



Motor failure: Illuminates when a failure or malfunction of the drive motor occurs.



Motor overheat: Illuminates when motor temperature exceeds the safe temperature threshold.



Malfunction: Illuminates when a critical fault occurs in the vehicle.

4.3.4 Regeneration indicator

REGEN As regenerative braking occurs, this icon illuminates. For more information, see [Regenerative braking](#).

4.3.5 Drive mode



When the ignition key is switched ON, this icon displays the selected drive mode:

F: Forward (Drive)

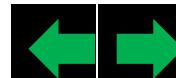
R: Reverse

To select a drive mode, see [Vehicle switches](#).



When an icon is not displayed, the vehicle is in Neutral gear.

4.3.6 Exterior lighting indicators



When a turn signal is activated, the corresponding indicator flashes on the display.

When the hazard warning flasher switch is pressed, both turn signal indicators will flash on and off continuously until the switch is deactivated.

For more information, see [Vehicle switches](#).

4.3.7 Headlights



This indicator illuminates in green when the headlights are activated, and in blue when the high beams are activated.

To activate the headlights, see [Vehicle switches](#).

4.3.8 State of Charge (SoC) meter



Displays the approximate current charge level of the high-voltage battery. The bar graph updates in real time as the battery charges or discharges.

4.3.9 Mode and Set buttons

Use the Mode and Set buttons to adjust settings on the display as described in this section.

- **Short press:** Hold the button for 1 to 2 seconds, then release.
- **Long press:** Hold the button for 5 to 10 seconds, then release.



The buttons are deactivated when the vehicle's speed exceeds 3 mph (5 km/h).

Mode button:

- **Switch between modes:** Short press to cycle between Odometer, Trip A, and Trip B on the display.
- **Set units:** Long press while in Trip A mode to switch between miles and mph or km and km/h.
- **Set time:** Long press while in Odometer mode to enter time-setting mode. Long press again to save settings and exit.

Set button:

- **Reset trip data:** Long press while in Trip A or Trip B mode to reset that value to zero.
- **Set time:** In time-setting mode, short press to increase hour or minute values. Long press to save and move to the next setting.
- **Toggle AM/PM:** In time-setting mode, short press to switch between AM and PM.

4.3.10 Time to charge

18:88 hrs
TTC

Displays the estimated amount of time (in hours) required for the vehicle's battery to reach 100% charge from its current State of Charge.

4.3.11 Service reminder



Illuminates when vehicle maintenance or service is due. See [Maintenance Schedule](#).

4.3.12 Odometer and trip distance recorders

TRIP@ 000000 miles
ODO 000000 km

Displays the current distance traveled in mph or km/h, based on the selected mode.

To select or modify a distance recording mode, see [Mode and Set buttons](#).

4.3.13 Speedometer

188 mph
km/h

Displays the current speed of the vehicle.

4.3.14 Battery indicator



Green: Indicates the battery pack is being charged.



Red: Indicates the current State of Charge (SoC) is between 10-15%.



Red (flashing): Indicates the current SoC is between 0-10%.

4.3.15 Charging indicator



Illuminates during vehicle charging.

See [Charging](#) for more information.

Operating Instructions

Display

4.3.16 Vehicle switches



Figure 4-4: Dashboard switches

1. Drive mode selector
2. Media player provision
3. USB charging ports
4. Hazard lights switch
5. Horn switch
6. Turn signals switch
7. Headlights switch
8. Rear lights switch
9. LED light bar switch
10. Tipper switch

Operating Instructions Display

	Control Name	Function
1	Drive mode selector	Turn to select R (Reverse), N (Neutral), or D (Drive) mode.
2	Media player provision	Provides connectivity for radio, MP3, and external devices.
3	USB charging ports	Supports USB-A and USB-C connections.
4	Hazard lights switch	Press to activate the turn signals simultaneously to alert others.
5	Horn switch	Press to activate the horn.
6	Turn signals switch	Press left or right to activate the corresponding turn signal. Note: Turn signals must be manually switched off.
7	Headlights switch	Turns the headlights ON and OFF, with additional settings for parking lights and high beam.
8	Rear lights switch	Operates the rear lights.
9	LED light bar switch	Activates the LED light bar on the front of the vehicle, typically used for enhanced visibility or off-road driving.

Operating Instructions Display

	Control Name	Function
10	Tipper switch	Press right to raise or left to lower the load body. See <u>Raising and Lowering the Load Bed.</u>

4.4 Vehicle Key

The LX40 uses a standard key with a metal blade to operate the ignition switch.



Figure 4-5: Key



Contact Boson if your vehicle's key is lost or damaged. See [Contacting Boson](#).

Operating Instructions

Starting and Stopping the Vehicle

4.5 Starting and Stopping the Vehicle

4.5.1 Operation prechecks

Before starting the vehicle:

- Walk around the vehicle to inspect for any signs of damage, wear, or obstructions around the tires and body. Ensure external lights are clean and unobstructed.
- Confirm that all necessary documentation is present in the vehicle.
- Familiarize yourself with the location and operation of all interior controls.
- Adjust the driver's seat to ensure a comfortable and secure driving position. Ensure you can easily reach the steering wheel and foot pedals and have a clear view of the display.

- Ensure the seat belts are easily accessible, function correctly, and are free from damage. Fasten your seat belt and give it a sharp pull to ensure it is fully latched.

Key the vehicle ON:

- Insert the key into the ignition switch and turn to the ON position without starting the motor. The display will load in approximately 10 seconds.
- Check for any warning lights on the display. Consult the [Display](#) section if any warning lights remain illuminated.
- Test all exterior lights to ensure they are fully operational.
- Ensure that the display shows all necessary information correctly.
- Ensure the horn is functional by giving it a quick press.

Operating Instructions Starting and Stopping the Vehicle

4.5.2 Starting the vehicle

1. Ensure that the operation prechecks are completed. Confirm that the drive mode is in **N** (Neutral) with the parking brake engaged.
2. Turn the key clockwise to the START position.
3. Fully press and hold the brake pedal.
4. Release the parking brake.
5. Turn the drive mode selector to the drive mode you wish to use.
6. Release the brake pedal and gently depress the accelerator pedal.
7. Use the steering wheel to position the vehicle as needed.

4.5.3 Stopping the vehicle

1. Gradually release the accelerator pedal and apply the brake pedal smoothly for a controlled deceleration.
2. Bring the vehicle to a complete stop by pressing the brake pedal firmly.
3. Continue holding the brake pedal and use the drive mode selector to switch the drive mode to **N** (Neutral).
4. Engage the parking brake to secure the vehicle, then release the brake pedal.
5. Turn the key counterclockwise to the OFF position and remove it from the ignition switch. The display lights will dim, signaling the vehicle's systems are shutting down.

4.6 Brakes

4.6.1 Braking systems

 *It is critical to occupant safety that your braking systems are always functioning properly. If you experience any issues with the brake pedal or receive any fault messages regarding the braking system, contact an Authorized Boson Service Center immediately.*

 *Driving through heavy rain or water can have an adverse effect on braking efficiency. It is recommended that you lightly apply the brakes intermittently in order to dry the brakes.*

4.6.2 Parking brake

 *Driving the vehicle with the parking brake applied, or repeated use of the parking brake to slow the vehicle, may cause serious damage to the brake system.*

The parking brake is used to keep the vehicle stationary when the gear is in **N** (Neutral).

The parking brake lever is located between the seats. Press and hold the button on the end of the lever, then pull up to apply the brake or push down fully to disengage.

When the parking brake is applied, an indicator will illuminate on the display. See [Display](#).

4.6.3 Regenerative braking

 *Take care when driving as the amount of regenerative braking available may be lower than expected, resulting in increased stopping distances or the need to apply the brakes.*

Whenever the vehicle is moving forward in D (Drive) gear and your foot is off the accelerator, regenerative braking slows the vehicle and feeds energy back to the high-voltage battery. While you should still use the brake pedal whenever needed to stop safely, you can take advantage of regenerative braking by anticipating your stops and reducing or removing pressure from the accelerator pedal to slow down.

The REGEN indicator on the display illuminates whenever energy is being generated and fed back to the high-voltage battery. See [Display](#).

The amount of generated energy being fed back to the high-voltage battery can vary depending on the current state of the battery. Regenerative braking may be limited if the battery is extremely hot or cold or if the battery is already charged to its maximum allowable level.

Operating Instructions

Raising and Lowering the Load Bed

4.7 Raising and Lowering the Load Bed

 *Ensure people are clear of the load bed before raising or lowering it. Body parts could become trapped or crushed, resulting in death or serious injury.*

 *Always have the vehicle parked on flat, even ground with the gear in N (Neutral) and the parking brake engaged before raising or lowering the load bed. Operating the mechanism while the vehicle is unstable could cause it to tip over, which could result in injury and vehicle damage.*

 *Ensure that no objects are in the path of the load bed before raising or lowering it. Any resulting vehicle damage would not be covered by the warranty.*

Observe the following before operating the tipper switch to raise or lower the load bed:

1. Park the vehicle on a flat and stable surface.
2. Shift into N (Neutral) and engage the parking brake.
3. Ensure there are no people or obstacles near the load bed.
4. Use the tipper switch to raise or lower the bed. See Vehicle switches.
5. Watch the load bed as it rises or lowers to ensure it is moving smoothly and evenly.

 *If the load bed moves erratically or unevenly, stop the process immediately and check for any obstructions or issues with the system. If the issue cannot be resolved, contact Boson for further assistance. See [Contacting Boson](#).*

CHAPTER 5: TRAILER TOWING

 All vehicles are designed with specific towing and payload capacities. Exceeding these limits can compromise vehicle handling, braking efficiency, and structural integrity, leading to collisions or vehicle damage. Do not attempt to tow using this vehicle without first consulting Boson motors for weight limits, instructions, and recommendations. See [Contacting Boson](#).

5.1 General Towing Information

This chapter contains many tips and safety rules on trailer towing (or “trailering”) that are important for the safety of you and your passengers. Read this section carefully before pulling a trailer.

5.2 Driving Characteristics and Towing Tips

 When towing a trailer, you can lose control of the vehicle if the proper equipment is not used, the trailer is not loaded correctly, or the vehicle is not driven properly. You and others could be seriously or even fatally injured.



Towing a trailer improperly can cause severe damage to the vehicle, and the repairs are not covered by the warranty.

5.2.1 When towing

- Familiarize yourself with and obey all state and local laws that apply to trailer towing. These requirements vary from state to state.

Driving Characteristics and Towing Tips

- State laws may require the use of extended side view mirrors. Even if not required, you should install extended side view mirrors if your visibility is limited or restricted while towing.
- Towing affects the handling, acceleration, braking, durability, and energy economy of your vehicle. To get accustomed to these changes, practice driving on a level road surface before driving on public roads.
- The trailer structure and the tires must be rated to carry the intended cargo. Inadequate trailer equipment can cause the combination to operate in an unexpected or unsafe manner.
- Before driving, inspect all trailer hitch parts and attachments, safety chains, and tires.

5.2.2 Following distance

To avoid heavy braking or sudden steering corrections, stay at least twice as far behind the vehicle ahead of you as you would when driving without a trailer.

5.2.3 Driving on downhill grades

Before starting down a long or steep downhill grade, reduce your speed. If the brakes have to work too hard to slow the vehicle and the additional trailer weight, they may overheat and result in reduced braking efficiency.

Driving Characteristics and Towing Tips

5.2.4 Turning

 When towing a trailer, turn more slowly and make wider arcs. Making sharp, sudden turns could cause the trailer to contact the vehicle, resulting in damage that would not be covered under the warranty.

- Use your turn signals earlier than usual to alert other drivers.
- Make slower, wider turns than normal when towing. The outside edge of the trailer has to clear all curbside hazards while turning (e.g. street signs, mailboxes, trees).
- Avoid sudden braking or steering movements.

5.2.5 Passing

- Avoid passing on steep upgrades or downgrades whenever possible; passing on level roads is safer and less prone to trailer sway.
- Use your turn signals earlier than usual to alert other drivers.
- Remember that your vehicle will not accelerate as quickly when it is pulling extra weight.
- More passing distance is needed due to the additional length of the trailer.
- After you have passed a vehicle, make sure you allow for the extra length of the trailer before returning to the lane.

Trailer Towing

Driving Characteristics and Towing Tips

5.2.6 Reversing



Avoid exaggerated turns, as this can jackknife the trailer and cause damage to your vehicle.

- Always back up slowly.
- When you steer your vehicle in **R** (Reverse), the trailer moves in the opposite direction.



Holding the steering wheel at the bottom with one hand can help you to visualize which way the trailer will move. Move that hand to the left to steer the trailer to the left. Move that hand to the right to steer the trailer to the right.

- Longer trailers are less sensitive to steering adjustments than shorter trailers, and can require wider turns.

- Installing extended side view mirrors can help increase visibility of your surroundings. If possible, have another person guide you. Use your mirrors and perform visual checks throughout your maneuvers to avoid collisions.
- Correct excessive turns by steering the tow vehicle the same way the trailer is moving, or by pulling forward in **D** (Drive) and trying again.

Driving Characteristics and Towing Tips

5.2.7 Parking on slopes and hills

When parking a vehicle with an attached trailer, it is recommended to park on a level surface whenever possible. If you must park on a hill or slope:

1. Press and hold the brake pedal, then curb your wheels accordingly: turn towards the curb if facing downhill or turn towards traffic if facing uphill.
2. Have another person chock the trailer wheels while you continue to hold the brake pedal.
3. Gradually release the brake pedal to allow the chocks to absorb the load of the trailer.
4. Press the brake pedal again and shift into N (Neutral), then apply the parking brake.
5. Release the brake pedal.

To leave the parking space:

1. Use the key to START the vehicle motor, then press and hold the brake pedal.
2. Shift into D (Drive) and release the parking brake.
3. Release the brake pedal and drive forward slowly until the trailer is clear of the chocks.
4. Use the brake pedal to stop the vehicle, and have another person collect the chocks.

Trailer Towing

Driving Characteristics and Towing Tips

5.2.8 Handling trailer sway

If you notice the trailer beginning to sway or “fishtail” while driving:

1. Immediately release the accelerator pedal, but **DO NOT APPLY THE BRAKE PEDAL OR PARKING BRAKE.**
2. Hold the steering wheel straight in your lane. **Attempting to correct the sway by steering will only make it worse.**
3. Allow your vehicle to slow down on its own.
4. Once you have regained control, pull over to a safe area.
5. Check your cargo to see if it needs to be secured or redistributed. See Trailer Load Balance.
6. If you begin driving again, maintain a slower speed. Stay at least 10 mph

(16 km/h) under the speed at which you noticed the trailer sway starting.

7. Have your hitch inspected by your dealer or an Authorized Boson Service Center to ensure it is not defective. Replace it if necessary.

Some common causes of trailer sway include:

- Wind gusts (weather-related or from passing high-profile vehicles)
- Poor driving conditions (e.g. uneven or slippery road surfaces)
- Excessive speed
- Overloading or excessive tongue weight (see Trailer Weight Ratings)
- Improper weight distribution
- Low tire pressure (see Maintaining Tire Pressures)

5.2.9 Maintenance when towing

Your vehicle needs service more often when used to tow trailers. Refer to a Boson dealer or an Authorized Boson Service Center for information and advice on maintenance for vehicles that frequently pull trailers.

Check periodically to see that all fasteners on the trailer hitch are tight.

Trailer Towing

Trailer Weight Ratings

5.3 Trailer Weight Ratings

 *Never exceed the towing capacity of your vehicle. Doing so could cause unsafe driving conditions, including degradation of vehicle handling and steering.*

To safely tow a trailer, the combined weight of the vehicle, vehicle contents, trailer, and trailer contents must be below all the maximum weight ratings for the vehicle, including:

- GCWR: Gross Combined Weight Rating
- GVWR: Gross Vehicle Weight Rating
- Maximum Trailer Weight Rating
- GAWR-RR: Gross Axle Weight Rating – Rear
- Maximum Trailer Tongue Weight Rating

The only way to ensure the weight is not exceeding any of these ratings is to weigh the tow vehicle and trailer combination, fully loaded for

the trip, getting individual weights for each of these items.

5.3.1 Hitch information label

The hitch information label is located by the trailer hitch mount and shows tow rating information for the vehicle.



Figure 5-1: Example hitch information label

 *Always refer to the actual label attached to the trailer hitch, as vehicle specifications and weights are subject to change.*

5.3.2 Gross Combined Weight Rating (GCWR)

GCWR is the total allowable weight of the completely loaded vehicle and trailer including any fuel, passengers, cargo, equipment, and accessories. Do not exceed the GCWR for your vehicle. The GCWR for the vehicle is on the Trailering Information Label.

To check that the weight of the vehicle and trailer are within the GCWR for the vehicle, follow these steps:

1. Start with the “curb weight” from the Vehicle Weight Table. See Weights.
2. Add the weight of the trailer loaded with cargo and ready for the trip.
3. Add the weight of all passengers, including the driver.
4. Add the weight of all cargo in the vehicle.

5. Add the weight of hitch hardware (e.g., a draw bar, ball, load equalizer bars, sway bars).
6. Add the weight of any accessories or aftermarket equipment added to the vehicle.

The resulting weight cannot exceed the GCWR value on the Vehicle Weight Table.

The GCWR can also be confirmed by weighing the truck and trailer on a public scale. The truck and trailer should be loaded for the trip with all passengers and cargo.

Trailer Weight Ratings

5.3.3 Gross Vehicle Weight Rating (GVWR)

For information about the vehicle's maximum load capacity, see the [Vehicle Certification Label](#). When calculating the GVWR with a trailer attached, the trailer tongue weight must be included as part of the weight the vehicle is carrying.

5.3.4 Maximum Trailer Weight Rating

The Maximum Trailer Weight Rating is the highest possible weight of a fully-loaded trailer that the vehicle can tow. It may be necessary to reduce the trailer weight to stay within the GCWR, GVWR, maximum trailer tongue load, or GAWR-RR for the vehicle.

To calculate the Maximum Trailer Weight Rating for your vehicle:

1. Find the Gross Combined Weight Rating for the vehicle as shown on the Vehicle Weight Table.

2. Subtract the following:

- Vehicle curb weight as shown on the Trailering Information Label
- Weight of the driver and passengers
- Hitch hardware weight (e.g. draw bar, ball, locks or weight-distributing hardware)
- Weight of any aftermarket accessories added to the vehicle
- Weight of all cargo



The trailer tongue weight is considered part of the cargo weight for your vehicle.

3. The result equals the Maximum Trailer Weight Rating.

 If you are not sure of your calculations for the Maximum Trailer Weight Rating, check the Hitch Information Label, see *Trailer Weight Ratings*. Alternatively, consult your Boson dealer or an Authorized Boson Service Center.

5.3.5 Maximum Trailer Tongue Weight Rating

The Maximum Trailer Tongue Weight Rating is the highest possible trailer tongue weight that the vehicle can support using a conventional trailer hitch. This rating is shown on the Hitch Information Label. See [Hitch information label](#).

The trailer tongue weight contributes to the Gross Vehicle Weight. [Gross Vehicle Weight Rating \(GVWR\)](#).

5.3.6 Gross Axle Weight Rating - Rear (GAWR-RR)

The GAWR-RR is the highest weight that can be supported by the rear axle of the vehicle. This rating is shown on the Trailering Information Label. If using a weight-distributing hitch, do not exceed the GAWR-RR before applying the weight distribution spring bars.

Trailer Load Balance

5.4 Trailer Load Balance

The following tips to maintaining a proper load balance can help to stabilize the trailer and minimize sway during driving.

When loading the trailer, load the heaviest items:

- Closest to the trailer floor
- Centered between the left and right trailer tires
- Above the trailer axles, or forward towards the trailer tongue

The trailer tongue weight should be between 10-15% of the total loaded trailer weight.



Certain trailer types (e.g. boat trailers) can fall outside of this range. Refer to the trailer owner's manual for the recommended trailer tongue weight for that trailer.



Use the shortest hitch extension that will position the hitch ball closest to the vehicle. This helps to reduce the effect of trailer tongue weight on the trailer hitch and rear axle.

5.5 Towing Equipment

Successful, safe trailering requires the proper use of the correct equipment.

Only use towing equipment that has been designed for your vehicle or approved by Boson. Contact your dealer or an Authorized Boson Service Center for assistance with preparing the vehicle to tow a trailer.

5.5.1 Hitches

It is recommended by Boson to use a standard ball hitch and 2-inch receiver with your trailer.

5.5.2 Safety chains

Safety chains should always be attached between the vehicle and the trailer. Installation instructions for safety chains may be provided by the hitch manufacturer or by the trailer manufacturer.

Cross the chains under the trailer coupler to help prevent the tongue from contacting the road if it becomes separated from the hitch. Leave enough slack in the chains for turning tight corners, but do not allow them to drag on the ground.

About the Battery System

CHAPTER 6: CHARGING

6.1 About the Battery System

 *Modifications or repairs to the electrical system performed by unauthorized personnel may pose significant safety risks and void the warranty.*

 *Ensure the vehicle is charged using the charger and methods specified in this manual. Improper charging could lead to battery damage or reduced battery life.*

 *Use only the charger and cables provided by Boson Motors to charge your vehicle. Incorrect charging equipment can damage your vehicle's battery or cause a fire.*



Ensure the charging area is well-ventilated.

Charging batteries generate heat, and inadequate ventilation may lead to overheating and battery damage.



Avoid depleting the battery below 20% State of Charge (SoC), as deep discharges can significantly reduce the battery's life.



Avoid charging the battery immediately after driving; allow it to cool down for at least 30 minutes.



Avoid charging the vehicle in extreme weather conditions. Charging in very hot or cold temperatures can affect battery health and overall performance. Avoid charging the vehicle in temperatures below 23°F (-5°C) or above 113°F (45°C).

 Charge the battery at ambient temperatures between 50°F to 77°F (10°C to 25°C) to optimize battery life and performance.

 To maximize battery life, avoid depleting the battery completely before charging. Regular, partial charges are better for battery longevity than full discharge cycles. Boson recommends charging to 80% SoC for normal usage.

 Consider the environment when parking for extended periods. Excessive heat or cold can drain the battery and affect its long-term performance. Where possible, park in shaded or covered areas to protect the battery from extreme temperatures.

There are two types of batteries powering your vehicle: The 12V battery powers the standard 12V systems, and the high-voltage battery powers the propulsion system and recharges the 12V battery.

The vehicle's high-voltage battery system uses a J1772 Type 1 charging port, which is compatible with a wide range of public and home charging stations. Boson provides a charging cable for use when charging the vehicle from a domestic wall outlet.

Charging Charging Port Location

6.2 Charging Port Location

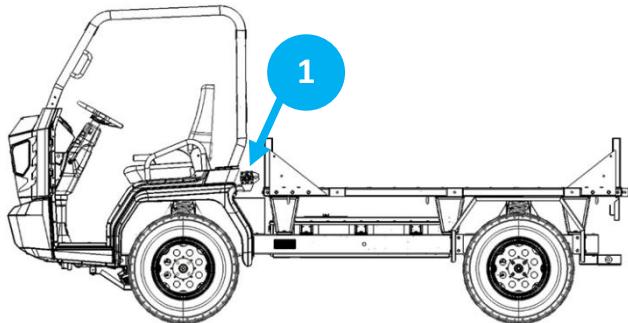


Figure 6-1: Charging port

1. Charging port
2. Green indicator light

6.3 Charging the Vehicle

6.3.1 Safety precautions

 *If you have any concerns with the condition of a wall outlet or the charging cable, DO NOT use them.*

- If using a domestic wall outlet, inspect the outlet and do not use it if it appears damaged or worn.
- Inspect the charging cable for damage, including frays or cracks. If a part appears damaged, do not use it. Contact Boson for further assistance. See Contacting Boson.
- Ensure that the charging cable is fully uncoiled before use.

- Check that the charging cable and charging port are clean and unobstructed. If you find any contamination or a foreign object in either part, do not use them and contact Boson.
- Check that the charging cable and charging port are dry. Ensure that your hands are dry, and there is no water or other fluids in the surrounding area (such as puddles on the ground).

6.3.2 Preparation

1. Park the vehicle near the power source so that the charging cable can easily reach its charging port.
2. Turn OFF the vehicle.
3. Remove the charging cable from its storage location.

Charging

Charging the Vehicle

6.3.3 Charging procedure



To avoid electric shock, observe the following precautions:

- *NEVER connect the cable connector with wet hands.*
- *ALWAYS ensure the vehicle is turned OFF before connecting the charging cable.*
- *DO NOT touch the terminals of the charging cable or the vehicle's charging port.*



If the charging port cover has iced over in cold weather, ??

To charge the high-voltage battery pack:

1. On the vehicle, press the charging port cover to reveal the port.

2. Remove the protective caps from both ends of the charging cable.
3. Plug the charging cable into the electrical outlet, then connect it to the vehicle's charging port. An audible click confirms a secure connection.
4. The vehicle's display will show the charging icon, indicating that charging has commenced. The indicator on the charging port will illuminate in green, indicating that the battery pack is charging.
5. Once charging is complete, the charging icon on the vehicle's display and the indicator on the charging port will extinguish.
6. Disconnect the charging cable from the vehicle first, then the electrical outlet.

 *Do not drop or pull on the charging cable, as this could damage the cable, the vehicle body, or the charging port.*

7. Close the cover of the charging port.
8. Secure the protective caps onto both ends of the charging cable.
9. Store the charging cable back in its storage location.

6.4 Maximizing Performance

 *Regularly monitor the energy management displays on the dashboard to track energy consumption. This helps you identify efficient driving patterns and optimize energy use, leading to further cost savings and operational efficiency.*
See [Display](#).

 *Operational range and efficiency can vary based on driving habits, terrain, and environmental conditions. To maintain uninterrupted operations and extend the vehicle's lifespan, adhere to a regular schedule for recharging and maintenance.*

 *Utilize regenerative braking to improve efficiency and reduce your environmental impact. See [Regenerative braking](#).*

CHAPTER 7: SERVICE AND MAINTENANCE

7.1 Maintenance Safety

 *Maintenance and repairs should only be performed by qualified personnel. The vehicle's high-voltage system, mechanical components, and software are complex and require specialized knowledge and tools for safe handling.*

 *Before performing any maintenance, ensure the vehicle is on a stable, level surface, the charging cable is unplugged, and all wheels are chocked.*

 *Be cautious when handling vehicle fluids and chemicals, such as coolant, brake fluid, and cleaning agents. Use protective gear, including gloves and eyewear, to avoid skin and*

eye contact. If contact is made, flush the affected area thoroughly with water and seek medical assistance if pain or irritation persists.

 *Adhere to the maintenance schedule provided in this manual to ensure your vehicle continues to operate as intended. Regular maintenance checks can prevent larger, more costly issues down the line.*

 *Always use genuine Boson parts and accessories for repairs and replacements. Non-genuine parts may not meet the high-quality standards required for optimal operation and could lead to vehicle damage or void the warranty.*

 *Keep a record of all maintenance and repairs performed on your vehicle. This documentation is valuable for warranty purposes and future servicing.*

Service and Maintenance

Maintenance Schedule

7.2 Maintenance Schedule

The maintenance schedule for the LX40 is based on operational milestones, measured in either mileage or time intervals, whichever comes first. The vehicle may require maintenance sooner due to usage and/or operational conditions.

Maintenance Task	Interval
Check vehicle lights	Monthly. If the vehicle is operated in dirty or muddy conditions, cleaning must be done daily.
Check tire pressure	Check each tire monthly when COLD and inflate to the pressure recommended on the Tire and Loading Information label. See Tire pressures .
Tire rotation	Every 6 months or 5,000 miles (8,000 km)
Inspect tires	Every year or 10,000 miles (16,000 km)
Tire replacement	Every 5 years or 50,000 miles (80,000 km)
Check brake fluid level	Monthly
Clean brakes	Every 20,000 miles (32,000 km)

Service and Maintenance Maintenance Schedule

Replace brake fluid	Every 2 years or 20,000 miles (32,000 km)
Replace gearbox oil	Every 1,200 miles (2,000 km)
Clean and protect vehicle	Every 2 months or 2,500 miles (4,000 km)
Check motor	Every year or 10,000 miles (16,000 km)
Clean and inspect battery system	Yearly

Service and Maintenance

Vehicle Inspections

7.3 Vehicle Inspections

7.3.1 Drive motor

According to the maintenance schedule, periodically check the drive motor visually for signs of damage or corrosion. If abnormalities are found, do not drive the vehicle and contact Boson for assistance.

7.3.2 Inspecting tires

 *Use only tires that meet the specifications for size, load rating, and speed rating given in this manual. This ensures optimal performance and maintains vehicle safety standards.*

1. Check for uneven wear patterns on each tire.
2. Measure tread depth to ensure it is above the minimum requirement. See Vehicle Specifications.
3. Look for signs of uneven wear, cuts, punctures, bulges, and embedded objects that could cause air leaks or tire failure.
4. Replace tires when tread depth is below the minimum requirement, or if there is significant damage that cannot be repaired safely.

For more information, see [Inspecting and Maintaining Tires](#).

7.4 Vehicle Fluids

7.4.1 Checking brake fluid

 Only use new fluid from a sealed, air-tight container. Never use previously used fluid or fluid from a previously opened container. Excess moisture in the brake fluid can cause a dangerous loss of braking efficiency.

 Brake fluid is highly toxic. Keep containers sealed and out of the reach of children. If accidental consumption of brake fluid is suspected, seek immediate medical attention.

 Do not allow brake fluid to come into contact with your eyes. If this happens, flush your eyes with clean water for at least 15 minutes and seek immediate medical attention.

Check the brake fluid level monthly and top up if necessary. Use only DOT 4 brake fluid for replacement.

1. Clean the filler cap before removing it to prevent dirt from entering the reservoir.
2. Unscrew the cap and remove.
3. Fill the reservoir to just below the MAX mark using a clean funnel and brake fluid meeting DOT 4 specification.
4. Install the reservoir cap.



Figure 7-1: Brake fluid reservoir

Vehicle Fluids

7.4.2 Replacing gearbox oil

 Allow the vehicle to cool completely before attempting to service the gearbox oil. The gear box may retain heat for several hours after operation. Hot oil can cause severe burns.

 Ensure the vehicle is OFF with the key removed before servicing it.

 Only use the type and quantity of oil specified by Boson in the [Fluids](#) section of this manual. Failure to do so can severely damage the gearbox and is not covered by the warranty.

 Avoid contamination of parts and fluids during the replacement process.



Dispose of used oil properly according to local regulations.

The gearbox oil should be periodically replaced in accordance with the Maintenance Schedule.

The LX40 has two gearboxes located under the vehicle between the front and rear wheels.

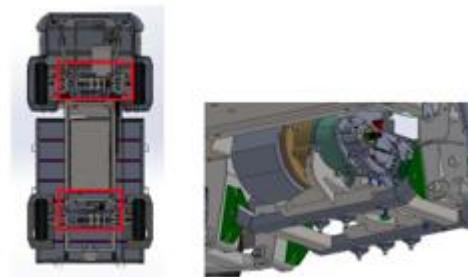


Figure 7-2: Gearbox locations

Use the illustrations in this section to familiarize yourself with the gearbox components:

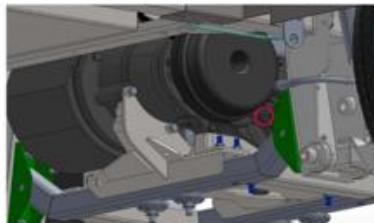


Figure 7-3: Fill hole location



Figure 7-4: Drain hole location



Figure 7-5: Drain plug location

Vehicle Fluids

To replace the gearbox oil:

1. Ensure you have a funnel, a new drain plug washer, and gearbox oil meeting Boson's specifications. See [Fluids](#).
2. Place a container beneath the gearbox to catch the old oil.
3. Remove the drain plug (M16 bolt) at the bottom to drain the old oil completely.
4. Remove the filler plug to allow air to escape while draining.
5. After draining the oil, replace the old drain plug with the new one and apply torque of 25Nm to tighten.
6. Remove the filler plug, insert a funnel, and top up the casing with gearbox oil, using caution not to overfill. For capacities, see [Fluids](#).
7. Check for leaks around the drain plug and air breather.
8. Test the gear shifting for smooth operation.

7.5 Electrical

7.5.1 Fuses

 *Make sure the vehicle is powered OFF and unplugged from the charger before changing a fuse.*

 *Boson recommends that owners do not remove or replace relays. Failure of any of these items should be investigated by a qualified technician.*

 *Only use Boson-approved replacement fuses of the same rating and type, or fuses of matching specification. Using an incorrect fuse may result in damage to the vehicle's electrical system and can result in a fire.*

 *If the replacement fuse blows after installation, the system should be checked by an Authorized Boson Service Center.*

Your vehicle uses a number of fuses to protect the electrical system from damage caused by short circuiting or overloading. Fuses are a one-time protection device and must be replaced each time the corresponding circuit is overloaded. Using the fuse information shown on the following pages, identify the fuse protecting the affected circuit. Use a fuse puller to remove the required fuse.

Service and Maintenance Electrical

The fuse box is located beneath the dashboard on the right, as shown in Figure 7-6.



Figure 7-6: Fuse box location

After removing the fuse box cover, a decal on the inside shows the location and amperage ratings of each fuse as shown in Figure 7-7.

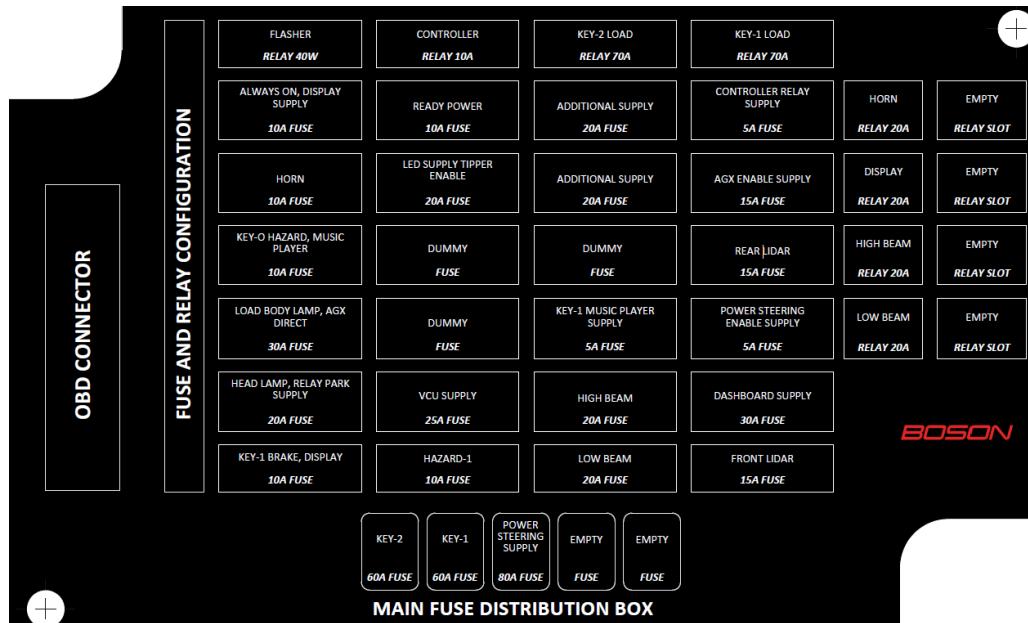


Figure 7-7: Fuse box cover

Service and Maintenance

Electrical

7.5.2 Lights

Regularly check all vehicle lighting, including headlights, taillights, brake lights, and indicators. Ensure all lights are functioning properly. Contact an Authorized Boson Service Center if a bulb needs replacement.

Clean the light covers regularly to maintain proper visibility, especially if the vehicle is used in muddy or dusty conditions.

7.5.3 High-voltage battery pack

 *The vehicle's battery system operates at high voltage levels capable of causing serious injury or death through electric shock. It is imperative to avoid touching these systems during inspection or maintenance.*

 *Never attempt to open, service, or modify the high-voltage battery pack. Tampering with the battery system may cause a fire, explosion, or other hazardous conditions.*

 *Only qualified personnel should perform service tasks or handle the vehicle's high-voltage battery and electrical system components.*

Inspection: Visually inspect the battery pack for any signs of damage, such as cracks or leaks. If damage is observed, do not attempt to charge or use the vehicle. Contact an Authorized Boson Service Center for assistance.

7.5.4 Manually disconnecting the high-voltage battery

 **CLASS 0 INSULATED GLOVES** and safety goggles **must** be worn when handling high-voltage systems. Failure to wear the proper specialized protective gear could result in death or serious injury from electric shock.

 Ensure that the parking brake is applied, the vehicle is OFF, the key is removed from the switch, and all wheels are chocked before attempting to disconnect the battery.

 After manually disconnecting the high-voltage battery, wait **at least 15 minutes** before performing any work on the vehicle to allow capacitors to fully discharge. Failure to do so could result in death or serious injury.

If it is necessary to manually disconnect the high-voltage battery pack:

- Always ensure that you wear the proper protective gear, including **insulated gloves rated Class 0** and safety goggles.
- Ensure that the parking brake is engaged. See [Parking brake](#).
- Turn the key switch to OFF and remove the key.
- Chock all four wheels to prevent the vehicle from rolling while you work beneath it.

There are five cables that must be disconnected from the battery pack: three in the front, and two in the rear. High-voltage cables are typically colored orange for easy identification.

Service and Maintenance Electrical

The front of the battery pack (Figure 7-8) faces in the same direction as the front of the vehicle.

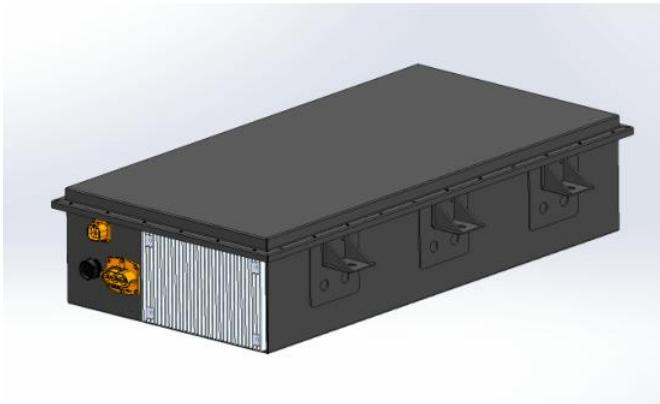


Figure 7-8: Front view of battery pack

The three cables to disconnect are illustrated in Figure 7-9.

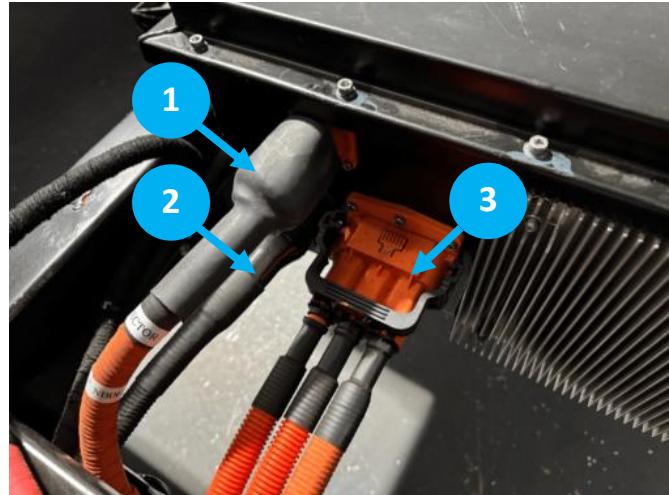


Figure 7-9: Cables on front of battery pack

The rear of the battery pack (Figure 7-10) faces in the same direction as the rear of the vehicle.

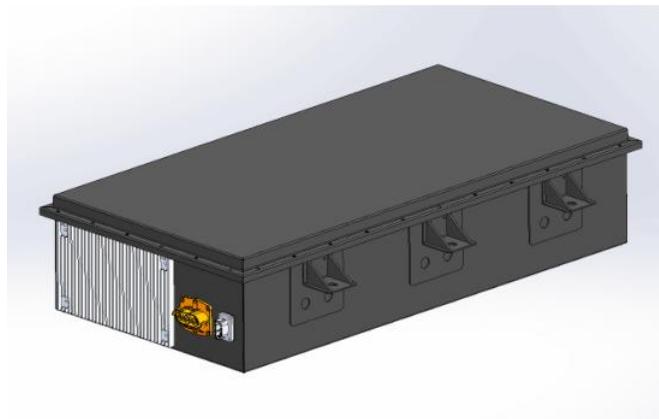


Figure 7-10: Rear view of battery pack

The two cables to disconnect are illustrated in Figure 7-11.

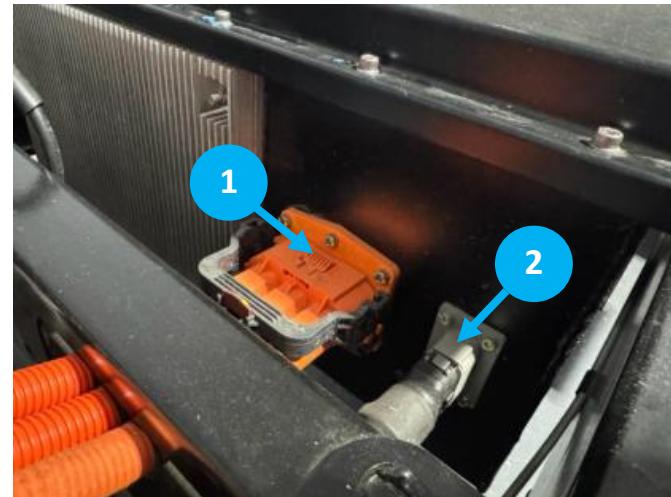


Figure 7-11: Cables on rear of battery pack

 Remember to wait **at least 15 minutes** after disconnecting the battery pack before performing any work on the vehicle.

Service and Maintenance

Electrical

7.5.5 12V battery

 Never attempt to charge the 12V battery while the high-voltage battery is being charged. Doing so could cause personal injury, and could damage the vehicle or charging equipment.

 Always wear insulated gloves and safety goggles when working with the 12V battery to protect yourself from hazards, such as sparks or battery acid.

 Never allow conductive objects (such as metal tools) to contact the battery terminals, as this can cause sparking or a short circuit.



To avoid electric shock, sparks, or electrical shorts, **always** disconnect or reconnect cables to the 12V battery in the following order:

When **disconnecting** cables:

1. Negative (-) terminal **first**
2. Positive (+) terminal **second**

When **connecting** cables:

1. Positive (+) terminal **first**
2. Negative (-) terminal **second**

The 12V battery is located between the cabin and the cargo bed on the right-hand side of the vehicle, as illustrated in Figure 7-12.

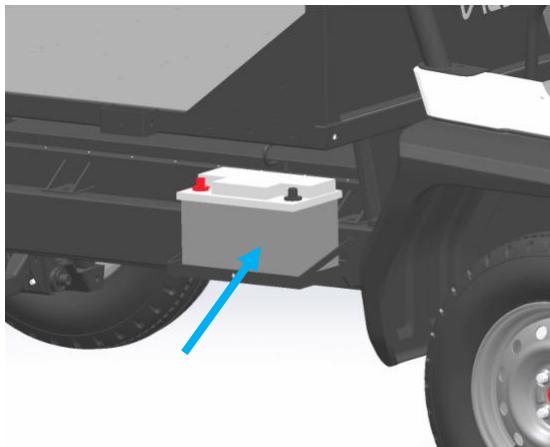


Figure 7-12: 12V battery location

i Depending upon the vehicle manufacture date, the 12V battery may instead be located below the cowl, underneath the seats.

The positive (+) and negative (-) battery terminals are illustrated in Figure 7-13.

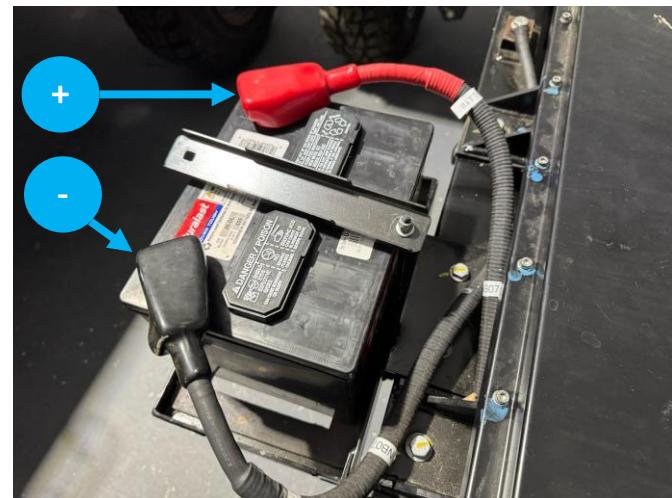


Figure 7-13: 12V battery terminals

Service and Maintenance

Cleaning the Vehicle

7.6 Cleaning the Vehicle

7.6.1 Exterior cleaning

 *Never charge your vehicle while washing it. Unplug the charge cable and close the charge port cover. Liquids entering the charge port while the cable is plugged in could result in serious personal injury, as well as damage to the vehicle, charging equipment, or property.*

 *After washing the vehicle, wet brakes can result in longer stopping distances. To dry the brakes, drive the vehicle slowly while gently pressing the brake pedal a few times to warm up the brakes.*

Wash your vehicle monthly to preserve the finish and maintain its overall appearance. To protect

the paint surfaces, wash your vehicle as soon as possible:

- When mud, dust, soot, or dirt builds up on the surface
- After driving on coastal roads or winter roads treated with salt
- When corrosive contaminants such as tree sap, bird droppings, or bugs collect on the surface
- After a rainfall to prevent possible damage from acid rain



It is illegal to pollute drains, rivers, and waterways. Some cleaning products contain chemicals that are hazardous to the environment. Used toxic chemicals must be disposed of at authorized waste disposal sites only. Always take precautions to prevent fluids from spilling.

 *Avoid using rough or tightly-napped cloths (such as washing mitts) on the vehicle, as these can be abrasive and damage the finish.*

 *Avoid washing your vehicle in direct sunlight. Water and cleansers dry faster on a hot surface and can leave water spots or stains.*

Use a mild car shampoo and a soft sponge or cloth. Rinse thoroughly with clean water to avoid soap residue, and use a soft brush to clean the wheels and tires. Rinse thoroughly and dry with a clean microfiber towel to prevent water spots.

Apply a high-quality wax or paint sealant every six months to protect the paint from UV damage and environmental pollutants. Treat exposed metal areas with rust inhibitors or protective coatings, particularly if the vehicle is regularly exposed to corrosive environments (e.g., salty air near oceans or salt used on icy roads).

7.6.2 Pressure washers

 *Do not use a pressure washer with a circular jet or bristle attachment, as it could damage the surface finish of components.*

 *Pressure washers which have a pressure exceeding 1,200 PSI (82 bar) can damage or even remove vehicle paint if used improperly.*

 *Do not use a hot or steam pressure washer with a temperature exceeding 120°F (48°C), as this could remove paint and surface protection from exterior parts.*

Keep the nozzle at least 12 inches (30 cm) from the surface of the vehicle. Always keep the nozzle moving and do not concentrate the spray on a single area.

Service and Maintenance

Cleaning the Vehicle

Do not aim the pressure washer at or near any of the following:

- Cabin interior (e.g., dashboard, steering wheel, foot pedals, seats)
- Plastic trim components
- Electrical components
- Wheels, tires, and brake system components

 *Vehicle or paint damage caused by using a pressure washer is not covered under the vehicle warranty.*

7.6.3 Automatic car washes



DO NOT use an automated car wash to clean this vehicle, as it can severely damage the interior components (e.g., display, dashboard switches, seats and seatbelts, etc.).



Vehicle damage caused by using an automated car wash is not covered under the warranty.

7.6.4 Underbody

If salt has been used on the roadways (such as during winter months), thoroughly remove all traces of road salt. Use a hose to rinse salt from the underside of the vehicle.

Flush away accumulations of mud in areas where debris easily collects (such as wheel arches).

7.6.5 Cleaning tires

 *Avoid using harsh chemicals for cleaning tires, as they can deteriorate the rubber and shorten the lifespan of the tire.*

Wash tires with the same soap used for the vehicle body. Apply a tire dressing to protect and give them a glossy finish.

7.6.6 Cleaning brakes

 *After cleaning, allow the brakes to dry thoroughly and test them in a safe area to ensure they are working correctly. Check for any unusual noises or vibrations.*

Use a brake cleaner spray and a soft brush to remove any dirt, debris, grease, or brake dust from the brake pads, calipers, and rotors.

Cleaning can be done more frequently than the recommended intervals if performance issues are noted.

 *Signs that your brakes may need cleaning include squeaking or grinding noises, a metallic sound, or unusual vibrations when braking.*

Service and Maintenance

Cleaning the Vehicle

7.6.7 Polishing, paint and body repairs

-  *Always wash your vehicle before waxing or polishing.*
-  *Do not polish or wax your vehicle in direct sunlight.*
-  *Do not use wax or polish containing any harsh abrasives, cutting compounds, or cleansers that may damage the vehicle finish. If in doubt when choosing a product, please contact Boson for recommendations.*
-  *Carefully read and follow all of the instructions provided by the manufacturer of the wax or polish product.*

Regular waxing helps to protect the paint surfaces from harsh elements and maintain their appearance. After the first year, Boson recommends polishing your vehicle before

reapplying wax. Polishing removes built-up residue and keeps the surface of the finish even.

The exterior paint should be regularly checked for damage. Any minor scratches or chips should be repaired as soon as possible using touch-up paint (contact Boson for recommendations).

Body repairs should only be performed by a body shop approved by Boson. Contact an Authorized Boson Service Center for assistance in locating an approved body shop near you.

7.6.8 Covering the vehicle

 *Never use a cover on the vehicle when the charging cable is connected, as this can prevent the battery pack from being adequately cooled during charging.*

To preserve the cosmetic appearance of the body when the vehicle is not being used, you may wish to use a cover. Contact Boson for recommendations.

7.6.9 Interior cleaning

 *Exposure to chemicals in some cleaners can be hazardous and can irritate eyes and skin. Always read and follow the manufacturer's instructions when using cleaning products.*

 *Do not splash or spill liquids in the vehicle, as this could cause an electrical component*

to malfunction or catch fire. Any spills should be immediately wiped up using a clean, dry cloth.

 *Do not apply cleaning products directly to the surface being cleaned. Ingress of cleaning products into components may cause damage or impair their function.*

 *Avoid using solvents (including alcohol), bleach, citrus, naphtha, or silicone-based products or additives on interior components, as these can damage the appearance of the material.*

Vacuum the interior regularly. Clean the dashboard, seats, and other surfaces with a soft microfiber cloth and appropriate interior cleaners designated for automotive use.

Service and Maintenance

Cleaning the Vehicle

7.6.10 Cleaning the display

 *Do not use polish or wax cleaners on the display screen. Polished surfaces are reflective and may interfere with the driver's view, resulting in an accident.*

 *Do not use statically-charged materials (such as a cloth that was recently machine-washed and dried) on the display.*

 *Do not use cleansers (such as glass cleaner) to clean the display.*

The display screen should only be cleaned using a soft, lint-free cloth designed for cleaning screens and monitors.

7.7 Parts, Accessories, and Modifications

 *Boson does not recommend installing non-approved parts and accessories or performing non-approved vehicle modifications. Doing so can negatively affect your vehicle's performance and the safety of its occupants. The warranty will not cover any damage caused by using or installing non-approved parts or accessories, or performing non-approved modifications.*

 *Boson will not accept liability for death, injury, or damage that occurs as the result of using or installing non-approved parts or accessories, or making non-approved modifications.*

Genuine Boson parts and accessories are the best choice for your vehicle. Boson has rigorously

tested all of their parts to ensure they meet the highest quality, safety, and performance standards.

Genuine parts and accessories can be purchased and professionally installed at a Authorized Boson Service Center, where qualified technicians can offer you the best advice on repairs, accessories, and modifications.

Because they cannot assess products from other manufacturers or distributors, Boson will not accept responsibility for any issues related to using non-Boson parts or accessories on your vehicle.

 *If you have a disability which may require modification to the vehicle, please contact Boson before any modifications are made. See [Contacting Boson](#).*

Parts, Accessories, and Modifications

7.7.1 Welding

 *Always disconnect the high-voltage battery and the 12V battery before performing any welding on this vehicle. Failure to do so could result in serious personal injury or severe damage to the vehicle.*

Failure to disconnect the 12V and high-voltage batteries before performing welding on this vehicle can result in electric shock and damage to the electronic components. Such damage is not covered under the vehicle warranty.

See [12V battery](#) for information on accessing the 12V battery terminals.

See [Manually disconnecting the high-voltage battery](#) for the instructions for this procedure.

7.8 Body and Chassis

Conduct a detailed inspection of the body and chassis monthly or after exposure to harsh conditions.

Regular inspection:

- Check for any signs of rust or corrosion, especially in areas prone to moisture accumulation.
- Inspect for cracks, dents, or damage that might have occurred from use or environmental exposure.
- Look for any signs of rust, corrosion, scratches, or dents. Pay particular attention to the undercarriage and wheel wells, and any areas prone to accumulate debris (e.g., mud or road salt) which could lead to corrosion.

- Ensure all body panels are securely attached and correctly aligned.

Body repairs should only be performed by a body shop approved by Boson. Contact an Authorized Boson Service Center for assistance in locating an approved body shop near you.

Service and Maintenance

Lifting the Vehicle

7.9 Lifting the Vehicle

7.9.1 Before lifting the vehicle

 *Never raise the vehicle when the charge cable is connected, even if charging is not in progress. Always disconnect the charge cable before raising the vehicle.*

 *Do not work on an incorrectly-supported vehicle. Doing so can cause serious damage, bodily injury, or death.*

 *Use only approved jack stands that meet the weight specifications of the vehicle.*

 *Do not allow anyone to sit in the vehicle while it is being raised.*

 *The lifting points detailed in this manual are the only approved lifting points for your vehicle. Lifting the vehicle at any other points*

may cause irreparable damage to the vehicle, which is not covered under the warranty.



Use a suitable rubber or wooden pad between the jack and the vehicle body to prevent surface damage.

- Park on a firm, level surface before raising the vehicle. If on a roadway, stop as far away from the flow of traffic as possible.
- If working on or near a roadway, activate the hazard warning flashers to alert other road users. Always use caution and stay alert for passing traffic.
- Ensure that the key switch is OFF and the parking brake is applied.
- Chock both sides of the wheel that is diagonally opposite of the wheel to be raised.

7.9.2 Approved lifting points

Refer to Figure 7-14 for the approved lifting points on your vehicle.

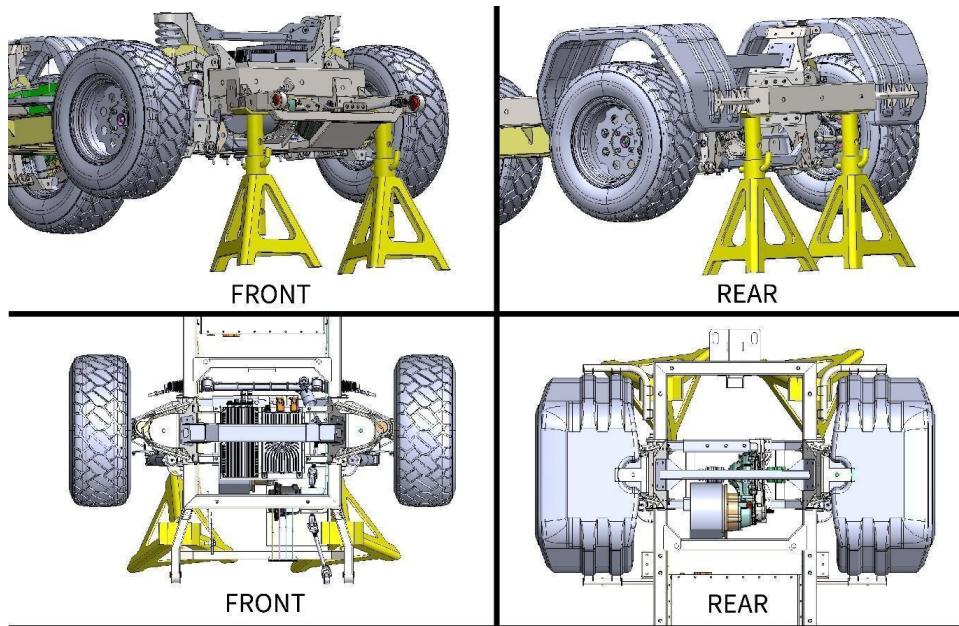


Figure 7-14: Front and rear lifting positions

Lifting the Vehicle

Front: Position the jack stands just behind the front wheels, beneath the reinforced portions of the frame rails.

Rear: Position the jack stands just forward of the rear wheels, under the cross-members.

Safety Protocols:

- **Weight distribution:** Prior to lifting, verify the load distribution and ensure that the vehicle is unloaded, particularly removing any heavy cargo that might affect stability.
- **Verification:** Once the jack stands are in place, gently rock the vehicle to ensure it is securely supported before commencing any maintenance activities.
- **Visibility and labeling:** Each jack stand point is clearly labeled and visible with high-contrast markings to guide technicians in proper placement.

7.9.3 Raising and lowering the vehicle

- Before use, inspect your jack. If any damage or leakage is found, do not use it.
- Wipe any debris off the lifting cylinder of your jack to ensure good contact with the vehicle.
- Before raising or lowering, ensure that the area beneath the vehicle is clear of objects (such as tools) and that no other people are standing close to the vehicle.

7.10 Storing the Vehicle

If you plan to store your vehicle for more than 30 days, follow the steps in this section to ensure it remains in excellent condition.

7.10.1 Preparing the vehicle for storage

Cleaning and covering:

- Clean the vehicle thoroughly inside and out to remove any dirt, grime, or substances that could damage the paint or interior over time. For more details, see [Cleaning the Vehicle](#).
- Use a breathable cover to protect the vehicle from dust and moisture while allowing condensation to escape, preventing mold and mildew.

Tire pressure:

- Inflate all tires to the recommended pressure level to prevent flat spots from forming during long-term storage. See [Tire pressures](#).
- Consider placing the vehicle on jack stands to remove weight from the tires and suspension if storage extends beyond three months. See [Lifting the Vehicle](#).
- If leaving the vehicle on level ground, chock all four wheels.

Fluids:

Check the brake fluid level and top up as necessary. See [Checking brake fluid](#).

Service and Maintenance

Storing the Vehicle

Batteries:

 *Avoid depleting the battery below 20% State of Charge (SoC), as deep discharges can significantly reduce the battery's life.*

Boson recommends charging the high-voltage battery to at least 80% SoC, then checking the charge level periodically and charging as needed to avoid depletion below 20% SoC. For more information on ideal charging maintenance, see

[About the Battery System](#).

For extended storage periods, you may wish to connect a trickle charger to the 12V battery to maintain its level of charge. To access the battery terminals, see [12V battery](#).

Pest prevention:

Place mothballs or cotton balls dipped in peppermint oil in and around the vehicle to deter pests, such as insects or rodents.

Location:

Store the vehicle in a cool, dry place away from direct sunlight. Garages or storage facilities with temperature control are ideal.

7.10.2 Taking the vehicle out of storage

Before using your vehicle after long-term storage, follow these steps:

Battery check:

Visually inspect the high-voltage and 12V batteries for any signs of damage or corrosion. If in doubt of a battery's condition, have it tested at an Authorized Boson Service Center.

Inspect and test all systems:

- Perform a thorough inspection of the vehicle's brakes, wheels, tires, lights, and electrical systems. Ensure everything is operational.
- Check for any leaks or signs of wear that may have occurred during storage.

Service and Maintenance

Troubleshooting

7.11 Troubleshooting

7.11.1 Before troubleshooting

 To avoid serious injury or a collision, always ensure the parking brake is applied, the vehicle is powered OFF, and the key is removed before attempting any troubleshooting or repairs.

 For ongoing problems that are not resolved through these troubleshooting steps, contact an Authorized Boson Service Center. This ensures that any repairs or diagnostics are carried out professionally and in accordance with warranty terms, preventing any potential damage to the vehicle or voiding the warranty.

7.11.2 Troubleshooting operational issues

Fault	Possible Cause	Remedy
Vehicle does not turn ON with key ON	Incorrect key position or faulty key switch	<p>Ensure the key is fully turned to the ON position.</p> <p>If the key does not turn smoothly to the ON position, do not use excessive force, as this may damage the key or ignition.</p> <p>Apply a small amount of graphite lubricant to the key or use a contact cleaner on the ignition. Avoid oil-based lubricants and cleansers, as they can attract dirt.</p>
	Dashboard indicators active	<p>Observe the dashboard lights while in the key ON position. If they do not illuminate, it may indicate an issue with the vehicle's battery system.</p> <p>If the dashboard lights flicker or fail to illuminate, try charging the battery pack.</p>

Troubleshooting

Fault	Possible Cause	Remedy
Vehicle does not power OFF with key OFF	Incorrect key position	Ensure the key is in the OFF position and can be removed from the ignition. If the key cannot be removed, it may not be fully in the OFF position.
	Incorrect parking mode	If the key is stuck, avoid using force. Check if the drive mode is in N (Neutral) and the parking brake is applied.
	Persistent power	If the vehicle's systems remain powered ON with the key OFF, there might be an issue with the ignition switch or a stuck relay. Contact Boson for assistance.
Reduced vehicle range	Under-inflated tires	Check the tire pressure on all tires. See Maintaining Tire Pressures .
	Excessive load	Check the load against the vehicle's maximum capacity (See Vehicle Specifications). Reduce the load to within specified limits.

Service and Maintenance Troubleshooting

Fault	Possible Cause	Remedy
Unusual noise(s) during operation	Loose external or internal components	Contact an Authorized Boson Service Center.
	Misaligned wheels	Observe if the vehicle pulls to one side while driving. Schedule a wheel alignment service at an Authorized Boson Service Center.
Vehicle does not respond when accelerator pedal is pressed	Loose connections	Contact an Authorized Boson Service Center.
	Insufficient battery charge level	Ensure that the battery pack is fully charged. See Charging .
Abnormal noise from drivetrain	Excessive wear or damage in gears	Contact an Authorized Boson Service Center.
Vibration during acceleration	Loose bolts or mountings of drive train	Contact an Authorized Boson Service Center.
Uneven or rapid tire wear	Worn-out suspension components	Contact an Authorized Boson Service Center.

Troubleshooting

Fault	Possible Cause	Remedy
Lights or other electrical accessories are not operational when key is ON	Insufficient battery charge level	Ensure that the battery pack is fully charged. See Charging .
	Blown fuse	Check fuses to see if one has blown. See Fuses .
	Damaged vehicle key	Inspect the key for any physical damage or wear. A damaged key may not engage correctly with the system. Contact Boson to replace worn keys.

CHAPTER 8: WHEELS AND TIRES

8.1 Understanding Tire Markings

Federal law requires tire manufacturers to place standardized information on the sidewall of all tires. This information identifies and describes the fundamental characteristics of the tire and also provides the tire identification number (TIN) for safety standard certification and in case of a recall.

Figure 8-1 shows a typical light truck tire size. The information printed on your vehicle's tire may vary.

37x13.5R22LT
 \u2193 \u2193 \u2193 \u2193 \u2193
 1 2 3 4 5

Figure 8-1: Example light truck tire size

- 1. Overall diameter:** This two-digit number is the overall diameter of the tire in inches when it is properly mounted and inflated to the manufacturer's recommended pressure.
- 2. Tire width:** This number gives the width in inches of the tire from sidewall edge to sidewall edge.
- 3. Tire construction:** R indicates that the tire is of Radial ply construction.
- 4. Wheel diameter:** This two-digit number is the diameter of the wheel rim in inches.
- 5. Tire category:** LT indicates that the tire is for light trucks.

Tire Information and Loading Label

8.2 Tire Information and Loading Label

 **Always refer to the actual label on your vehicle for specifications. Failure to do so may lead to unsafe operation and risk of injury.**

The tire and loading information label is located on the body side panel on the driver's side of your vehicle.

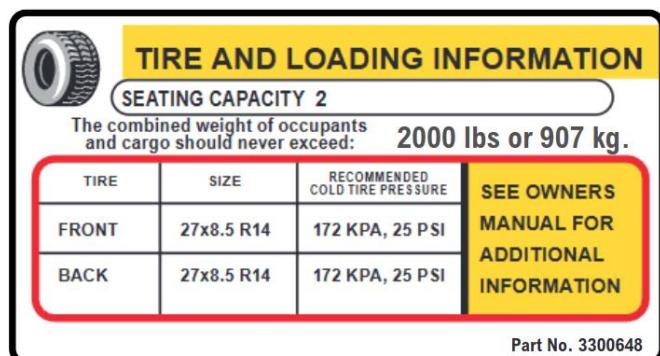


Figure 8-2: Example of a tire and loading information label

The label contains the following information:

- The maximum vehicle capacity weight in kilograms (kg) and pounds (lb)
- The maximum number of occupant seating positions in the vehicle
- The size of the tires originally fitted to the vehicle
- The cold inflation pressures for the original specification of front and rear tires

The stated tire pressures provide the optimum vehicle ride and handling characteristics for all normal operating conditions.



This label must not be changed, even if different wheels are fitted at a later time.

8.3 Inspecting and Maintaining Tires

 *The tires should be regularly checked for wear and to make sure that there are no cuts, bulges, or exposure of the ply/cord structure. Do not drive with tires which are worn, damaged, or inflated to the incorrect pressure. The safety of the vehicle and occupants will be adversely affected.*

Always consider tire conditions when driving, and regularly inspect the tread and side walls for any sign of distortion (bulges), cuts, or wear.

Good driving practice improves the mileage you obtain from your tires and avoid unnecessary damage.

- Always ensure that the tire pressures are correctly adjusted.

- Always observe the posted speed limits and advisory speeds.
- Avoid pulling away quickly or hard acceleration.
- Avoid making fast turns or braking sharply.
- Avoid potholes and objects in the road.
- Do not run over curbs or hit the tire against the curb when parking.



Avoid contaminating tires with vehicle fluids that can cause damage.

Wheels and Tires

Inspecting and Maintaining Tires

8.3.1 Tire wear

 *The tire wear indicators show the minimum tread depth recommended by the tire manufacturer. Tires which have worn to this point will have reduced grip and poor water displacement characteristics.*



Figure 8-3: Tire wear indicators

Tires fitted as original equipment have tread wear indicators molded into the tread pattern.

When the tread has been worn down to approximately 2/32 inch (1.6 mm), the indicators start appearing at the surface of the tread pattern, producing the effect of a continuous band of rubber across the width of the tire.

A tire must be replaced as soon as an indicator band becomes visible or the tread depth reaches the minimum permitted by legislation.

 *Your Authorized Boson Service Center will evaluate tire wear when servicing your vehicle.*

8.3.2 Wheel alignment and tire balance

Unbalanced wheels (sometimes noticeable as vibration through the steering) may affect vehicle handling and tire life. Even with regular use, wheels can get out of balance. Therefore, you should balance your wheels as required.

 *If tire wear is uneven (on one side of the tire only) or becomes abnormally excessive, you should check the wheel alignment.*

8.3.3 Wheel and tire rotation

Wheels and tires should be rotated in a rearward cross pattern. Rear tires are moved to the forward axle and kept on the same side of the vehicle, while the front tires are moved to opposite sides of the rear axle.

8.3.4 Age degradation

Tires degrade over time due to the effects of ultraviolet light, extreme temperatures, high loads, and environmental conditions. It is recommended that tires are replaced every six years, but may require replacement more frequently.

Inspecting and Maintaining Tires

8.3.5 Flat tires

 *Re-inflating a tire after it has been driven on while severely underinflated or flat may cause a blowout and a collision. Never attempt to re-inflate a tire that has been driven on while severely underinflated or flat. Have an Authorized Boson Service Center or an authorized tire service center repair or replace the flat tire as soon as possible.*



Driving on a flat tire will permanently damage the tire and wheel.



Boson does not recommend using liquid or aerosol tire sealants (e.g. "fix-a-flat") to temporarily repair a tire. Any damage resulting from repairing a tire via these methods is not covered under the warranty.

Tire blowouts are rare, especially if the tires are properly maintained. However, if you experience a tire blowout while driving:

1. Take your foot off the accelerator pedal and let the vehicle slow down. Do not immediately apply the brakes or attempt to pull off the road, as this can cause loss of vehicle control, resulting in a collision.
2. As the vehicle slows, grip the steering wheel firmly and steer to maintain lane position. In a front tire blowout, the flat tire creates a drag that pulls the vehicle toward that side. Steer to keep the vehicle going straight ahead. A rear tire blowout may cause the rear of the vehicle to swerve. Steer to the same side that the rear of the vehicle is sliding towards.

3. When the vehicle has slowed enough that it is safe to do so, brake carefully and pull over to the closest safe area out of traffic. If you are on a divided highway, do not park in the median area between the two traffic lanes.
4. Once your vehicle is parked, activate the hazard warning lights.
5. Have all passengers get out of the vehicle, ensuring that they exit on the side facing away from traffic.

Maintaining Tire Pressures

8.4 Maintaining Tire Pressures



Tire pressures should be checked using an accurate pressure gauge when COLD.

Under-inflation is the most common cause of tire failures and may result in severe tire cracking, tread separation or “blowout”, with unexpected loss of vehicle control and increased risk of injury.

Each tire, including the spare (if provided), should be checked monthly when cold and inflated to the inflation pressure recommended by the vehicle manufacturer on the vehicle placard or tire inflation pressure label. (If your vehicle has tires of a different size than the size indicated on the vehicle placard or tire inflation pressure label, you should determine the proper tire inflation pressure for those tires).

Driving on a significantly under-inflated tire causes the tire to overheat and can lead to tire failure.

Under-inflation also reduces fuel efficiency and tire tread life, which may affect the vehicle's handling and stopping ability.

8.4.1 Checking tire pressures

 Pressure checks should only be carried out when the tires are COLD. A hot tire at or below recommended cold inflation pressure is dangerously under-inflated.

 If the vehicle has been parked in strong sunlight or used in high ambient temperatures, do not reduce the tire pressures. Move the vehicle into the shade and allow the tires to cool before checking.

 Do not exceed the maximum pressure stated on the sidewall of the tire. Over-inflation could cause the tire to fail suddenly.

Check the pressures when the tires are COLD.



A COLD tire is defined as one that has not been driven on for at least 3 hours. Air pressure increases in warm tires and it only takes 1 mile (2 km) of driving to warm the tires sufficiently to affect the tire pressures.

If it is necessary to check the tires when they are warm, you should expect the pressures to have increased. Do not let air out of warm tires in an attempt to match the recommended cold tire pressures.

Always inflate your tires to the pressures recommended by Boson even if it is different from the maximum inflation pressure information found on the tire itself.

Maintaining Tire Pressures

8.4.2 Adjusting the tire pressure

The recommended COLD tire pressures are also shown on the [Tire Information and Loading Label](#).

The following procedure should be used to check and adjust tire pressures:

1. Remove the cap from the valve, then firmly press the tire gauge onto the valve and measure the pressure.
2. If required, add air to reach the required pressure.
3. Check the pressure by removing the tire gauge and then re-attaching it. Failure to remove and re-attach the gauge to the valve could cause the gauge to show an incorrect reading.

4. If the tire pressure is too high, remove the gauge and release air from the tire by pressing on the metal stem in the center of the valve. Refit the gauge to the valve and check the pressure.
5. Repeat the process adding or removing air as required until the correct tire pressure is reached.
6. Refit the valve cap.



It is an offense in certain countries to drive a vehicle with incorrect tire pressures.

8.4.3 Tire valves

Keep the valve caps screwed down firmly to prevent water or dirt entering the valve. Check the valves for leaks when checking the tire pressures.

8.4.4 Flat spots

If the vehicle is stationary for a long period when the ambient temperature is high, the tires may form flat spots. When the vehicle is driven, these flat spots cause a vibration which will steadily disappear as the tires warm up and regain their original shape.

8.4.5 Tire pressures during long-term storage

To minimize the possibility and effects of flat spots during storage, the tires may be inflated to the maximum pressure indicated on the tire wall.



The tire pressures must be reduced to the correct pressure before the vehicle is driven.

Replacing Tires and Wheels

8.5 Replacing Tires and Wheels

 *For your safety, it is recommended that only wheels and tires that match the original specification are used on the vehicle. Specifications for approved winter tires are available by contacting your Authorized Boson Service Center.*

Wheel rims and tires are matched to suit the handling characteristics of the vehicle. Always check that replacement tires comply with the original specification. If tires other than those specified are used, ensure that the load and speed ratings (shown on the tire side wall) equal or exceed those of the original specification.

For the specification of the original wheels and tires installed on the vehicle, see [Wheels and tires](#).

Ideally, tires should be replaced as sets of four. If this is not possible, replace the tires in pairs (front and rear). When tires are replaced, the wheels should always be re-balanced and alignment checked.

8.6 Tire Traction Devices

8.6.1 Tire chains

 Follow the manufacturer's instructions carefully when installing tire chains.

Damage caused from using tire chains improperly is not covered by the warranty.

- Only install tire chains on the rear wheels.
- Check and correct the seating of the tire chains after driving a few feet, if necessary.
- Note the maximum speed of 30 mph (50 km/h). Observe the local regulations.
- Remove the tire chains on roads without snow. Driving on roads without adequate snow cover could impair driving ability and damage the tires.

For recommendations on tire chains, contact your Authorized Boson Service Center.



Although approved by Boson, the use of tire chains may still be prohibited according to location. Check the local laws before installing tire chains.

8.7 Changing a Wheel

 Check the wheel nuts several days after a wheel change and tighten them if needed.

Temperature fluctuations and vibrations can cause them to loosen slightly.

Replace any wheel that is bent, cracked, or badly rusted or corroded. If wheel nuts keep coming loose, the wheel, wheel bolts, and wheel nuts should be replaced. If the wheel leaks air, replace it.

Some aluminum wheels can be repaired. Contact an Authorized Boson Service Center if any of these conditions exist.

Emergency Information

Transporting the Vehicle

CHAPTER 9: EMERGENCY INFORMATION

9.1 Transporting the Vehicle

 *Towing the vehicle with the wheels on the ground, or on a suspended lift, may cause serious damage to the vehicle as well as generating high voltages in the vehicle's electrical components.*

If for any reason your vehicle cannot be driven, the only method approved by Boson for recovering or transporting it is by using a flatbed trailer or transporter. The flatbed trailer or transporter must have an approved load rating that is greater than the actual weight of your vehicle, including aftermarket accessories and cargo. See [Weights](#).

 *Damage caused by any other recovery method is not covered by the warranty.*

9.2 Preparing the Vehicle for Transportation

Before pulling the vehicle onto a flatbed trailer or transporter, the parking brake must be released to allow the vehicle to free wheel. See [Parking brake](#).

Pulling the Vehicle onto a Trailer or Transporter

9.3 Pulling the Vehicle onto a Trailer or Transporter

 *Tow straps should never be used on any non-structural members or suspension members. Doing so can cause significant damage to your vehicle.*

Tow straps can be attached to the vehicle at any point on the chassis frame.



Figure 9-1: Tow strap attachment examples

Emergency Information

Vehicle Fires

9.4 Vehicle Fires

! *In case of a vehicle malfunction or if you suspect a safety issue, stop the vehicle in a safe location and turn OFF the power. Avoid direct contact with high-voltage components and cables, which are typically marked in orange.*



Figure 9-2: Example high-voltage warning label

In case of a vehicle fire:

1. **EVACUATE THE VEHICLE IMMEDIATELY.**
2. **Call for help:** Once safe, call emergency services.
3. **Stay clear:** Keep a safe distance from the vehicle. Battery fires can be particularly dangerous and unpredictable and can release toxic fumes. Do not attempt to extinguish a vehicle fire unless you can do so safely with a Class C fire extinguisher designed for electrical fires.

High-Voltage Battery Emergencies

9.5 High-Voltage Battery Emergencies

 *The vehicle's battery system operates at high voltage levels capable of causing serious injury or death through electric shock. It is imperative to avoid touching these systems during inspection or maintenance.*

 *Never attempt to open, service, or modify the high-voltage battery pack. Tampering with the battery system may cause a fire, explosion, or other hazardous conditions.*

 *Only qualified personnel should perform service tasks or handle the vehicle's high-voltage battery and electrical system components.*

If you suspect an issue with the vehicle's battery or electrical systems:

1. Turn OFF the vehicle key switch.
2. Exit the vehicle.

3. Check for visible battery pack damage while maintaining a safe distance.
4. If battery pack damage is noticeable or if fluids are leaking from the pack, keep everyone a safe distance from the vehicle and contact emergency services.
5. If no visible damage or leaks are observed, contact Boson for further assistance. See Contacting Boson.

Customer Information

Contacting Boson

CHAPTER 10: CUSTOMER INFORMATION

10.1 Contacting Boson

For all inquiries, please refer to the following contact information. Boson Motors is committed to providing exceptional customer service and support to ensure your satisfaction.

Boson Motors
4760 Collier Canyon Road
Livermore CA 94551

Boson Customer Support:
+1 (925) 245-0633

Mon - Fri: 8:00 AM to 8:00 PM EST
Sat & Sun: 9:00 AM to 5:00 PM EST



Visit www.bosonmotors.com to access our 24/7 live chat service or submit an online support ticket.



General inquiries:
support@bosonmotors.com

Maintenance requests:
maintenance@bosonmotors.com



Warranty claims:
warranty@bosonmotors.com

OEM parts:
parts@bosonmotors.com

For a complete list of Authorized Boson Service Centers, visit www.bosonmotors.com or contact Boson Customer Support.



10.2 Consumer Information

10.2.1 Federal and state warranty laws (“lemon laws”)

Notice to Consumers

Some states have laws, sometimes referred to as “lemon laws,” allowing you to get a replacement vehicle or a refund of the purchase price under certain circumstances. These laws vary from state to state. If your state law allows, Boson Motors requires that you first notify us in writing of any service difficulty or issue that you may have experienced so that we can have a chance to make any needed repairs before you are eligible for remedies provided by these laws. In all other states, Boson Motors asks that you give it written notice of any service difficulty or issue.

Please send your written notification to Boson Motors at the following address:

Boson Motors
4760 Collier Canyon Road
Livermore CA 94551

Phone: +1 (925) 245-0633

E-mail: support@bosonmotors.com



For the most current information, please review your state's consumer protection laws in their entirety or contact your state's attorney general's office.

Customer Information

Consumer Information

10.2.2 Vehicle certification and standards

Safety and emissions: Boson Motors vehicles are certified to meet or exceed all applicable safety and emissions standards in the jurisdictions where they are sold. This includes compliance with the National Highway Traffic Safety Administration (NHTSA) standards and Environmental Protection Agency (EPA) emissions guidelines in the United States.

International standards: For markets outside of the United States, Boson Motors complies with local regulatory requirements, such as the European Union's Whole Vehicle Type Approval (WVTA) or equivalent certifications.

10.2.3 Data protection and privacy

Customer data: Boson Motors adheres to strict data protection laws to ensure the privacy and security of customer and vehicle data. This includes compliance with the General Data Protection Regulation (GDPR) in the EU and similar regulations in other countries and territories.

Vehicle data: Information collected from vehicle telematics is used in accordance with our privacy policy, which details how data is collected, used, and protected. Customers are provided with transparency and control over their data.

10.2.4 Intellectual property rights

Technology and brand: All technology, software, and branding associated with Boson Motors are protected under intellectual property laws. This includes patents, trademarks, and copyrights that cover vehicle designs, systems, and the Boson Motors brand identity.

Usage restrictions: Unauthorized use of Boson Motors' intellectual property, including replication of vehicle parts, software modifications, or misuse of brand assets, is strictly prohibited and subject to legal action.

10.2.5 Consumer rights and warranties

Warranty information: Boson Motors provides comprehensive warranty coverage for all vehicles, which is detailed in the vehicle's warranty manual.

Dispute resolution: In the event of a dispute, Boson Motors encourages customers to contact our customer service directly. If a resolution cannot be reached, customers may have recourse to arbitration or mediation as detailed in the warranty terms.

10.2.6 Recalls and safety notices

Monitoring and compliance: Boson Motors monitors vehicle performance and safety through ongoing inspections and customer feedback. In the event of a potential safety issue, a recall process is initiated in compliance with regulatory requirements.

Notification process: Owners are notified of recalls or safety notices through direct communication, such as mail or email, based on the contact information provided at the time of purchase or service.

Consumer Information

10.2.7 Battery disposal and recycling

Boson Motors emphasizes environmental responsibility, particularly in the disposal and recycling of high-voltage batteries. At the end of its service life, the battery pack in your vehicle should be properly recycled. Contact Boson for recycling arrangements.

10.2.8 Electromagnetic Compatibility (EMC)

Boson Motors' vehicles are designed to ensure electromagnetic compatibility, meaning they operate without causing or suffering unacceptable electromagnetic interference. This compliance extends to both emitting and resisting electromagnetic disturbances, which ensures that the vehicle's electronic systems function optimally without interference from or to other devices. This adherence to EMC standards protects both the vehicle's functionality and the user's other electronic devices.

10.2.9 California Proposition 65

 **WARNING:** Operating, servicing and maintaining a passenger vehicle or off-highway motor vehicle can expose you to chemicals including engine exhaust, carbon monoxide, phthalates, and lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. To minimize exposure, avoid breathing exhaust, do not idle the engine except as necessary, service your vehicle in a well-ventilated area, and wear gloves or wash your hands frequently when servicing your vehicle. For more information go to www.P65Warnings.ca.gov/passenger-vehicle.

10.2.10 California Perchlorate Advisory

 **WARNING:** Certain components of this vehicle such as lithium batteries may contain perchlorate material. Special handling may apply for service or end of life disposal. See www.dtsc.ca.gov.

Declarations of Conformity

10.3 Declarations of Conformity

The following devices comply with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

- **Bluetooth:** 4.2 BLE
- **WLAN:** IEEE 802.11a/b/g/n; 2.4GHz/5GHz
- **Mobile Broadband:** LTE, HSPA+, UMTS, EDGE, GPRS, GSM (Data and Voice)
- **GNSS:** GPS/GLONASS (optional U-blox)



The above equipment is not available in all markets or in all vehicles.

CAUTION TO USERS: Changes or modifications not expressly approved by the party responsible for compliance may void the FCC authorization to

operate the equipment. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 and to Part 18 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Radiation Exposure: These devices have been tested for human exposure limits and found compliant at a minimum distance of 5 cm during operation. Thus during the operation of a device, a distance of 5 cm must be respected in every direction.

Owner Responsibilities

10.4 Owner Responsibilities

Registration and insurance: Owners are responsible for registering their vehicle in accordance with local laws and maintaining valid insurance coverage.

Maintenance and repairs: Adhering to prescribed maintenance schedules and conducting repairs at Authorized Boson Service Centers helps ensure that the vehicle remains compliant with safety standards.

10.5 Additional Legal Provisions

Export restrictions: Boson Motors vehicles are subject to specific export controls and sanctions laws. Customers must comply with local export regulations if they intend to ship vehicles to other countries.

Environmental compliance: Owners are encouraged to follow local regulations regarding vehicle disposal, battery recycling, and other environmental best practices to minimize the ecological impact.

APPENDIX I

Glossary of Terms and Acronyms

APPENDIX I. Glossary of Terms and Acronyms

Term	Definition
AC (Alternating Current)	Type of electrical current in which the flow of electricity periodically reverses direction, unlike direct current (DC) where the flow of electricity is only in one direction.
Chassis	The base frame of a motor vehicle on which the body and various components are mounted.
DC (Direct Current)	Electrical current that flows consistently in one direction. DC is typically used in batteries, solar panels, and electronics.
Drivetrain	All the components that deliver power to the driving wheels, including the engine, transmission, drive shafts, differentials, and final drive.
Ingress Protection (IP) Rating	An international standard used to define levels of sealing effectiveness of electrical enclosures against intrusion from foreign contaminants and moisture.
Interface	The point of interaction between two systems or devices. In vehicles, this often refers to the user interface that allows drivers to interact with the vehicle's system through touch screens or switches.
kWh (Kilowatt-hour)	A measure of electrical energy equivalent to a power consumption of one thousand watts for one hour.

APPENDIX I

Glossary of Terms and Acronyms

Term	Definition
Payload Capacity	The maximum weight that a vehicle can carry, including cargo and passengers, but excluding the weight of the vehicle itself.
Regenerative Braking	A mechanism in electric and hybrid vehicles that captures the vehicle's kinetic energy during braking and converts it into electrical energy, which is then used to recharge the high-voltage battery.
SoC (State of Charge)	The level of charge in a battery relative to its capacity, expressed as a percentage.
Torque	A measure of the force that can cause an object to rotate about an axis. In automotive contexts, it reflects how much pulling power an engine produces.
VIN (Vehicle Identification Number)	A unique code used by the automotive industry to identify individual motor vehicles.

APPENDIX II
Vehicle Service Records

APPENDIX II. Vehicle Service Records

Vehicle Identification Number (VIN): _____

Model: _____

Registration Number: _____

Date of Purchase: _____

Service Record

Date	Mileage	Service Provider	Service Performed	Part(s) Replaced	Notes

APPENDIX II

Vehicle Service Records

Software Updates Log

Date	Software Version	Update Features	Notes

Accident Log

Date	Incident	Resultant Issues	Repairs Needed

APPENDIX II

Notes

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