

**DACH**

# OWNER'S MANUAL

[www.dachvehicles.com](http://www.dachvehicles.com)

**Falcon 2+2**

# Table of Contents

<b>1</b>	<b>Contact Us</b> .....	<b>Page 8</b>
<b>2</b>	<b>Introduction</b> .....	<b>Page 10</b>
	About This Publication	Page 11
	Illustrations	Page 11
	About This Manual	Page 12
	Important Information	Page 12
<b>3</b>	<b>Practice Safety</b> .....	<b>Page 13</b>
	Safety Guidelines for Vehicle Maintenance	Page 14
	Operator Safety	Page 15
<b>4</b>	<b>Warranty Information</b> .....	<b>Page 16</b>
	Limited Warranty Terms and Conditions	Page 18
	Exclusions	Page 19
	Limited Warranty Shall Be Voided If the Vehicle AND/OR Battery	Page 19
	Sole Remedy	Page 19
	Liability	Page 19
	Battery Warranty and Specifics	Page 20
	Reserved Rights	Page 20
	DISCLAIMER	Page 20
	WARNING	Page 20

<b>5</b>	<b>Vehicle Model Information</b> .....	Page 21
	Vehicle General Specifications	Page 24
<b>6</b>	<b>Seat Belts</b> .....	Page 25
	Fastening And Unfastening The Seat Belts	Page 26
	Seat Belt Precautions	Page 26
	Seat Belt Extensions	Page 27
<b>7</b>	<b>Key</b> .....	Page 28
	Key Switch	Page 29
	Gear Shift Switch	Page 29
<b>8</b>	<b>Side-View Mirrors</b> .....	Page 30
	Mirror Adjustment Precautions	Page 31
<b>9</b>	<b>Multi-Functional Media</b> .....	Page 32
	Description for the Owner's Manual	Page 33
	Functions and Features	Page 33
	Safety and Usage Tips	Page 34
<b>10</b>	<b>Seats</b> .....	Page 36
<b>11</b>	<b>LiFePO4 Batteries</b> .....	Page 37

	Battery Disconnection	Page 38
	Operational Safety	Page 39
	Battery Pack Service Warnings	Page 39
	Lithium Battery Pack Protection Mode and Operation	Page 40
	Battery Operation	Page 41
	Solar Power	Page 42
<b>12</b>	<b>Charger</b> .....	<b>Page 44</b>
	Charger Description	Page 45
	Charging Procedure	Page 45
	Vehicle Charging Power Supply Requirements	Page 46
<b>13</b>	<b>Brakes</b> .....	<b>Page 47</b>
	Brake Operation	Page 48
	Brake Precautions	Page 48
	Locating the Brake Fluid Reservoir    Checking the Brake Fluid	Page 48
	Brake Fluid Specification	Page 49
	Electromagnetic Brakes	Page 49
	Manual Release of Electromagnetic Brake	Page 50
<b>14</b>	<b>Rear-View Camera</b> .....	<b>Page 51</b>
<b>15</b>	<b>Loading Capacity</b> .....	<b>Page 53</b>

<b>16</b>	<b>Towing</b> .....	Page 55
	Towing Warnings	Page 56
<b>17</b>	<b>Fuses</b> .....	Page 57
	Fuse Box	Page 58
	Fuse Replacement Precautions	Page 58
<b>18</b>	<b>Maintenance</b> .....	Page 59
	Wheel Replacement	Page 60
	Brake Adjustment	Page 60
	Jacking Points	Page 60
	Regular Maintenance Chart	Page 61
<b>19</b>	<b>Storing the Vehicle</b> .....	Page 62
	Preparation	Page 63
<b>20</b>	<b>Operation and Control</b> .....	Page 64
	EMB Switch	Page 65
	One-Button Start	Page 65
	Gear Knob	Page 65
	USB Data Transfer	Page 65
	Combination Meter	Page 66
	Combination Switch	Page 66

	Brake Pedal/Accelerator Pedal	Page 66
<b>21</b>	<b>Rims &amp; Tires</b> .....	<b>Page 67</b>
	Tire Conditions	Page 68
	Tire Care Tips	Page 68
<b>22</b>	<b>Vehicle Starting Procedure</b> .....	<b>Page 69</b>
	Vehicle Inspection	Page 70
	Starting the Vehicle	Page 71
	Parking and Powering Off the Vehicle	Page 71

# Contact Us

## DCD VEHICLE CORP.

[www.dachvehicles.com](http://www.dachvehicles.com)

If you have any questions, please contact [service@dachvehicles.com](mailto:service@dachvehicles.com).



# Introduction

## About This Publication

Thank you for purchasing a DACH Electric Vehicle. This Owner's Manual provides essential information for the proper operation, maintenance, and care of your new DACH vehicle. Familiarizing yourself with this information will help you maximize your DACH vehicle's performance. If you have further questions or need clarification on anything regarding the operation or maintenance of your vehicle, please contact your DACH dealer or visit our website, as follows: [www.dachvehicles.com](http://www.dachvehicles.com).

### Important Notes

Operate your vehicle according to all applicable laws and regulations.

Ensure all printed owner's information is passed on when selling the vehicle.

All detailed photos in this Owner's Manual are for reference only, the actual configuration of the products which you buy may differ from these.

### Safety Warning

Distracted driving can lead to loss of control, accidents, and injury. Exercise extreme caution when using any device that may divert your attention from the road. Safe operation of your vehicle is your responsibility. We advise against using hand-held devices while driving and recommend utilizing voice-operated systems when possible. Be aware of local laws regarding the use of electronic devices while driving.

## Illustrations

Some illustrations in this manual may show features from different models, which may differ from your vehicle.

## About This Manual

Reading this manual will provide a comprehensive understanding of your DACH vehicle.

## Important Information

### Warning

The safety alert symbol indicates a need for caution. Ignoring these warnings could result in severe injury or death to the vehicle occupants or bystanders.

### Caution

Sections under this heading emphasize important precautions to prevent vehicle damage

## OPERATING INSTRUCTIONS

Before operating the vehicle, read the owner's manual and vehicle safety warnings. Learn and understand the controls.

### TO OPERATE

Make sure the wheels are turned in the direction you want to travel, and the path is clear.

Ensure the key is in the driver's possession or placed in the dashboard, then press and hold the start button for 1-3 seconds until the button indicator light illuminates.

When stopped, holding the brake pedal down, turn the gear selector to forward (D/E) or reverse (R), and the vehicle will begin to move when you press the accelerator pedal.

Gently press the accelerator pedal to increase speed.

### TO STOP

Release the accelerator pedal and press the brake pedal.

### WARNING

Unintended movement of the vehicle can result in serious injury or death.

### BEFORE LEAVING THE VEHICLE

Turn the gear selector to neutral (N).

Hold the start button again for 1-3 seconds until the button indicator light turns off.

Remove the key when leaving the vehicle.

Note: DACH Electric Vehicles strives to produce the highest quality products. Although this manual contains the latest product information available at the time of printing, there may be slight differences between this manual and your vehicle. If you have any questions, please contact your DACH dealer or visit [www.dcdvehicle.com](http://www.dcdvehicle.com)

# Practice Safety

## Safety Guidelines for Vehicle Maintenance

### General Safety Instructions

Always adhere to the manufacturer's safety guidelines outlined in the operation and service manuals. This should include the specific safety measures listed below.

### During Maintenance

1. Ensure the vehicle is fully immobilized before starting any maintenance work to prevent unexpected movement.
2. Secure the chassis with blocks when working under the vehicle to prevent it from moving unexpectedly.
3. Disable the electrical system of an electric vehicle before starting work, following the manufacturer's guidelines, to prevent electrical shocks or damage.
4. Use only insulated tools when working on electric vehicles or near batteries to prevent electrical shocks and damage to the electrical system.

### Post-Maintenance Protocols

1. Verify all safety mechanisms like brakes, steering, warning, and lighting system remain in optimal condition. Do not alter these safety mechanisms.
2. Have the vehicle checked by a certified and trained individual in a pedestrian-free area after any maintenance or repair to ensure it is adjusted and functioning correctly.
3. Keep a detailed maintenance log, noting the date, the maintenance provider's name, and the type of maintenance done. Regularly review the maintenance log to ensure its accuracy and completeness.
4. Utilize operator comment cards to highlight maintenance needs that are not routine for specific vehicles.
5. Ensure that all vehicle labeling, such as nameplates, warnings, and instructions, remain clear and legible as provided by the manufacturer.

## Operator Safety

### Before Driving

1. Read the manual and safety instruction labels on the vehicle.
2. Ensure all passengers are seated with seat belts fastened.

### Starting and Stopping

1. Turn the key on.
2. Switch the gear onto "D/E" to move forward or "R" to reverse.
3. Press the accelerator to start moving and use the parking pedal to stop.

### Driving Safely

1. Drive according to the terrain, visibility, and conditions.
2. Be cautious in crowded or slippery conditions.



### Warnings

### Water Crossing

Never attempt to drive through deep or flowing water, as this may result in loss of control, injury, or death.

### Slippery Conditions

When driving in conditions that require tire chains or cables, drive cautiously. Maintain low speeds, allow for longer stopping distances, and avoid aggressive steering to prevent losing control, which can cause serious injury or death. "If the vehicle begins to skid while turning, steer in the same direction as the skid until control is restored"

### Passengers and Children

Do not allow a passenger to hold a child on their lap while the vehicle is moving. Failure to follow this can result in injury or death during a sudden stop or crash.

### Child Safety

Do not use pillows, books, or towels to boost a child's height. Ensure the shoulder section of the seat belt is properly positioned, not under the arm or behind the back, to maintain its effectiveness and reduce injury or death risk in a crash.

### Unattended Children and Pets

Never leave children or pets unattended in the vehicle. Failure to follow this can result in injury or death.

# Warranty Information

DACH



## Limited Warranty Terms and Conditions

DCD VEHICLE CORP("DACH™") provides a Limited Warranty for any new electric vehicle, ensuring they are free from material or workmanship defects. This warranty covers parts only and is applicable to the original purchaser. DACH™ warrants to the Original Purchaser or Lessee, as defined herein, and subject to the conditions, limitations, and exclusions in this warranty, that any new vehicle or new component purchased from DACH™, or an Authorized Dealer or Distributor, will be free from defects in material and workmanship under normal use and service for the specified periods below.

Limited Warranty Period:Commences on the vehicle's retail date of purchase.

Part or Component	Warranty	Part or Component	Warranty
Frame	LIFETIME	LiFePO4 Battery(Full Replacement)	5 Year
Controller	3 Year	Electric Motor & Rear Axle	3 Year
Solar Panel	2 Year	Windshield	1 Year
All Other Parts and Components			2 Year

## Exclusions

- Routine maintenance, normal wear and tear, proper tire pressure and cosmetic deterioration, or electrical components damaged as a result of fluctuations in electrical current.
- Damage caused by neglect, abuse, accidents, unauthorized parts or accessories, or external events such as vandalism or acts of nature.
- Repairs performed by someone other than an authorized and qualified Dealer or Dealer personnel shall void the Limited Warranty.
- Expenses for transportation to/from service locations.
- Fuses, decals (except safety decals), light bulbs, lubricants, trim pieces, seats, routine wear items such as brake pedals, brushes, mats and pads, tires and maintenance adjustments.
- Cosmetic deterioration and items that deteriorate or fail due to environmental exposure or ordinary wear and tear, including paint fading due to chronic sun exposure or improper storage.

## Limited Warranty Shall Be Voided If the Vehicle AND/OR Battery

- shows signs of neglected maintenance or use beyond the description in the Owner's Manual.
- shows signs of usage of non-OEM (unapproved) parts, modifications, or alterations.
- shows signs of non-approved electrical installations or modifications.

## Sole Remedy

If any defect arises, DACH™ will, at its discretion, repair or replace the part with original OEM parts or reconditioned parts at its factory option. As for the defective parts, replaced under the terms of this Limited Warranty, are the sole properties of DACH™ and must be returned to DACH™ upon request.

## Liability

In no case shall DACH™ be liable for indirect, incidental, special, punitive, or consequential damages, including but not limited to death, personal injury, or property damage arising from or related to any alleged failure in a vehicle or battery charger, or any damage or loss to the purchaser or any third party for lost time, inconvenience, or any economic loss, whether or not the company was aware of the foreseeability of such damages or losses. Any legal claim related to a warranty breach must be filed within three (3) months from the date

of the claim. This limited warranty gives you specific legal rights, and you may have other rights which vary from state to state. Some states do not allow the exclusion of incidental damages or limitations on how long an implied warranty may last, so the above exclusions and limitations may not apply to you.

## **Battery Warranty and Specifics**

- The warranty period for amp hours is tracked by DACH™.
- Battery warranty claims must undergo testing specified by DACH™.
- Any non-factory modifications made directly to the batteries will void the Limited Warranty.
- The 5-year full replacement battery warranty is only applicable to personal-use vehicles, excluding commercial-use vehicles.
- Warranty for any rental usage vehicles, taxi or other excessive use application is six (6) months and must be registered as such.

## **Reserved Rights**

DACH™ retains the right to inspect vehicles, modify designs, or evaluate warranty claims without having to update previous products. The purchaser acknowledges that this Limited Warranty is the complete warranty provided by DACH™, and any exceptions or modifications to this warranty are invalid without written approval from DACH™ Corporation.

## **DISCLAIMER**

THIS LIMITED WARRANTY IS EXCLUSIVE. DACH™ MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED. ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE THAT EXCEED THE OBLIGATIONS OR TIME LIMITS STATED IN THIS WARRANTY ARE DISCLAIMED BY DACH™ AND EXCLUDED FROM THE WARRANTY. REPAIRING THE DEFECTIVE VEHICLE OR COMPONENT IS THE PURCHASER'S SOLE REMEDY. DACH™ MAKES NO OTHER REPRESENTATIONS OR WARRANTIES OF ANY KIND, AND NO REPRESENTATIVE, EMPLOYEE, DISTRIBUTOR, OR DEALER OF DACH™ HAS THE AUTHORITY TO MAKE OR IMPLY ANY REPRESENTATION, PROMISE, OR AGREEMENT THAT VARIES THE TERMS OF THIS WARRANTY.

## **WARNING**

ANY MODIFICATION OR ALTERATION TO THE VEHICLE BEYOND FACTORY SPECIFICATIONS, INCLUDING CHANGES THAT AFFECT THE WEIGHT DISTRIBUTION, STABILITY, OR SPEED OF THE VEHICLE, CAN RESULT IN SERIOUS PERSONAL INJURY OR DEATH AND WILL COMPLETELY VOID THIS WARRANTY.

# Vehicle Model Information



**Color Options:**



**Note:** Range varies based on battery options, road conditions, road grade, number of passengers, and other factors.

**Disclaimer:** Illustration is representative of product, actual cart may vary

**Note:** Photos are for display purposes only and do not represent the configuration of the actual product you purchase.

<b>Falcon 2+2 Seater All-Terrain Tires</b>	
Controller	48V 350A
Battery type	LiFePO4 51.2V 105Ah
Motor Type	48V AC 5KW
Charger	110V-240V/20A onboard charger (1.5kw)
Passenger	4 persons
Length*Width*Height	114.2 x 54.7 x 80 in
Wheelbase	67 in
Curb Weight	1212 lb
Load Capacity	661 lb
Max. Speed	25 Mph
Turning Radius	11.5 ft
Gradeability	30 %
Braking Distance	19.7 ft
Ground Clearance	5.51 in



**Color Options:**

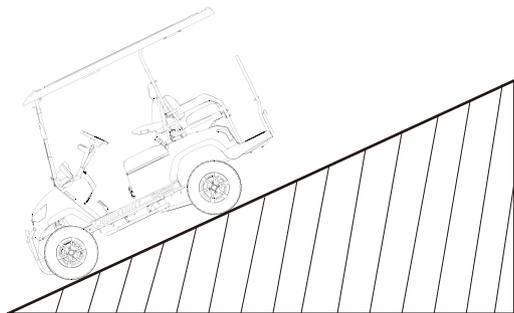


**Note:** Range varies based on battery options, road conditions, road grade, number of passengers, and other factors.

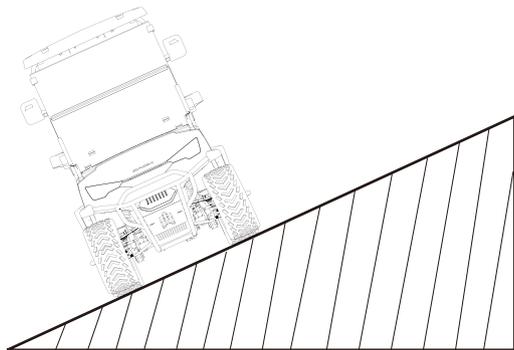
**Disclaimer:** Illustration is representative of product, actual cart may vary

**Note:** Photos are for display purposes only and do not represent the configuration of the actual product you purchase.

<b>Falcon 2+2 Seater Regular Road Tires</b>	
Controller	48V 350A
Battery type	LiFePO4 51.2V 105Ah
Motor Type	48V AC 5KW
Charger	110V-240V/20A onboard charger (1.5kw)
Passenger	4 persons
Length*Width*Height	114.2x54.7x79.33 in
Wheelbase	67.32 in
Curb Weight	1212 lb
Load Capacity	661 lb
Max. Speed	25 Mph
Turning Radius	11.5 ft
Gradeability	30 %
Braking Distance	19.7 ft
Ground Clearance	5.12 in

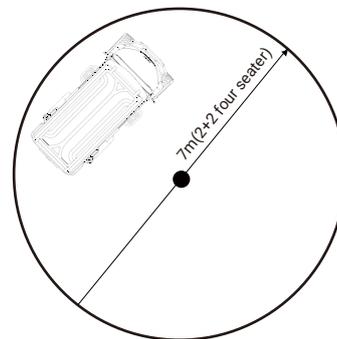


Recommended Max Ramp 30% Grade



Recommended Max Tilt Angle 25 %

## Vehicle General Specifications



Vehicle Turning Clearance Diameter

# Seat Belts



## Fastening and Unfastening the Seat Belts

### Fastening the Seat Belts

1. Insert the tongue into the buckle.
2. Pull the seat belts tight to remove any slack.

### Unfastening the Seat Belts

1. Press the red button on the buckle to release the seat belts.
2. Hold the seat belt tongue and allow it to retract completely and smoothly to its stowed position.

## Seat Belt Precautions

### Warning

#### Proper Usage

Always drive and ride with your seat belt upright, and ensure the lap belt is snug and low across the hips.

#### Child Restraint

Children must always be properly restrained.

#### No Lap Holding

Do not allow a passenger to hold a child on their lap while the vehicle is moving. Failure to follow this could result in injury or death during a sudden stop or crash.

#### Occupant Seat Belt Usage

All vehicle occupants, including the driver, must always wear their seat belts properly, even if the vehicle is equipped with an airbag supplemental restraint system. Not wearing a seat belt properly significantly increases the risk of injury or death.

#### Rollover Safety

In a rollover crash, unbelted individuals are significantly more likely to die than those wearing seat belts.

### Specific Seat Belt Use

Each seating position has a specific seat belt assembly consisting of one buckle and one tongue designed to be used together. Use the shoulder belt on the outside shoulder only. Never wear the shoulder belt under the arm. Never use a single seat belt for more than one person.

### Child Restraint

Even with advanced restraint systems, always properly restrain children 12 and under in a rear seating position. Failure to do so could significantly increase the risk of injury or death.

### Heat Precaution

Seat belts and seats may become hot in a vehicle exposed to sunlight, which can burn a child. Check seat covers and buckles before placing a child near them.

### Post-Crash Inspection

If your vehicle is involved in a crash, have the seat belts and related components inspected as soon as possible.

### Correct Usage

This system will only provide protection when the seat belt is used correctly.

### Cleaning Warning

Do not use cleaning solvents, bleach, or dye on the vehicle's seat belts, as these actions may weaken the belt webbing.

## Seat Belt Extensions

### Child Restraint Positioning

Depending on the child restraint design and its position, access to certain seat belt buckle assemblies and LATCH lower anchors may be blocked, making them unusable. To avoid injury, ensure occupants use seating positions where they can be properly restrained.

### Unnecessary Extension Use

People who fit into the vehicle's seat belt should not use an extension. Unnecessary use could result in serious injury in a crash.

### Proper Extensions

Only use extensions provided by our dealers, designed specifically for your vehicle, model year, and seating position. Extensions intended for other vehicles, model years, or seating positions may not offer full protection.

### Child Restraints

Seat belt extensions should never be used for child restraints.

### Fit Adjustment

Do not use extensions to change how the seat belt fits across the torso, over the lap, or to make the seat belt buckle easier to reach.

# Key

## Key Switch

Press and hold the start switch for 3 seconds with a valid key, the switch backlight will illuminate, and the vehicle will enter the start state.

### Warning

1. Do not leave the key in the car carelessly or when only children are in the car to avoid accidents.
2. When you stop using the vehicle, be sure to press and hold the start switch to turn off the vehicle power.



## Gear Shift Switch

1. The vehicle is in the start state.
2. Press the brake pedal.
3. Use the knob shifter to select "R" for reverse, "D" for drive, or "E" for economy mode.
4. Press the accelerator pedal to start moving the vehicle, and press the brake pedal to stop the vehicle.

### Warning

Do not shift to reverse gear while the vehicle is in motion.



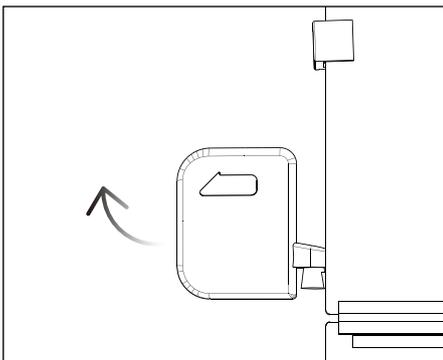
# Side-View Mirrors

## Mirror Adjustment Precautions

Adjust each mirror manually before turning the key to start the vehicle.

 **Warning**

Do not adjust the mirrors while the vehicle is in motion, as this could lead to loss of control, serious injury, or death.



# Multi-Functional Media



## Multimedia Interface

This state-of-the-art multimedia interface is designed to enhance your driving experience, offering a range of features tailored for convenience, connectivity, and control. The sleek touchscreen display provides easy access to essential information and entertainment options, all within a user-friendly interface designed specifically for our golf carts.

### 1. Digital Speedometer

The interface prominently displays your current speed in miles per hour (mph), ensuring you have clear and immediate access to speed information at all times.

### 2. Battery Charge Indicator

Located below the speedometer, this indicator shows the remaining battery charge as a percentage, allowing you to monitor the power level of your golf cart and plan your route accordingly.

### 3. Multimedia Controls

#### Radio

Enjoy your favorite stations with the built-in radio function.

#### USB Media Access

Play music or other media files directly from a USB device.

#### Bluetooth Music (BT Music)

Connect your smartphone or other Bluetooth-enabled devices to stream music wirelessly.

### 4. Phone Integration

The interface allows you to connect your smartphone for hands-free calling, making it easy to stay connected without taking your focus off the course.

### 5. Android Auto and Apple CarPlay

Seamlessly integrate your smartphone with the multimedia system to access navigation, music, messaging, and other apps directly from the interface.

### 6. Touchscreen Navigation

The responsive touchscreen allows for intuitive control of all functions, ensuring that every feature is just a tap away.

### 7. Real-Time Status Updates

The top of the screen displays key information such as the current time and connectivity status, providing you with everything you need to stay informed while on the move.

## Safety and Usage Tips

### Avoid Distraction

While the interface offers many features, always prioritize safe driving. Only interact with the system when the golf cart is stationary.

### Battery Monitoring

Keep an eye on the battery indicator to ensure you have enough power for your entire journey.

### Regular Updates

Check for software updates periodically to ensure your multimedia system is running optimally and has the latest features.

This multimedia system is designed to complement your golfing experience by keeping you connected and informed, making every round of golf both enjoyable and convenient.

# Seats



### **Weight Capacity**

The front seats are designed to accommodate up to two passengers. The driver and front seat passenger must wear their seatbelts while the vehicle is in motion.

### **Cleaning Instructions**

Regularly clean the seats with a mild soap solution and a soft cloth. Avoid using abrasive cleaners or brushes that could damage the seat material.

### **Seat Adjustment**

When adjusting the seat position, ensure the cart is stationary. Adjust the seat gently to avoid damage to the adjustment mechanisms.

### **Safety Belts**

Always fasten the safety belts securely when the vehicle is in use. Regularly inspect the belts for signs of wear or damage and replace if necessary.

### **Sun Exposure**

When not in use, try to park the golf cart in a shaded area or use a protective cover to prevent prolonged sun exposure, which can fade and weaken the seat material.

# LiFePO4 Batteries

## Battery Disconnection

### To disconnect the battery

1. Turn off the battery power, as indicated in 4.
2. Disconnect the battery negative terminal, followed by the positive terminal and the communication cable.
3. Remove the four battery mounting bolts.
4. Remove the battery from the vehicle.

### To install the battery

Reverse the disconnection procedure.

#### Warning

Do not disassemble the battery unless you are a qualified professional! Before disassembling the battery, be sure to turn off the power to the entire vehicle and the battery!

- |  |   |
|--|---|
|  Battery negative terminal |  Battery positive terminal |
|  Communication cable       |  Battery power button      |



## Operational Safety

1. Over time, all batteries self-discharge. The rate of self-discharge depends on the ambient temperature and the age and condition of the battery.
2. When the vehicle is in storage, the power switch should be turned off, and the power button on the traction battery should be turned off.
3. When the vehicle is in storage, it should be inspected and charged at least once every 30 days.



## Battery Pack Service Warnings

### Warning

1. This battery pack may only be serviced by a qualified electric vehicle technician. Improper handling can result in personal injury or death.
2. Improper connection of the grounding conductor can result in a risk of electric shock. If you are unsure whether the outlet is properly grounded, have it checked by a qualified electrician. Do not modify the plug if it will not fit the outlet. Have a proper outlet installed by a qualified electrician.
3. It is recommended that a licensed, qualified electrician install the electrical outlet that will be used with your charger. To avoid serious injury or death, the installation must comply with the National Electric Code (NEC) and all local codes. Local codes should take precedence if they conflict with the NEC.
4. Do not tamper with the control box or coupler.
5. Do not use if stored outside of the specified temperature range.
6. If the cable disconnects from the control box or charger coupler, seek professional assistance from your dealer instead of attempting repairs yourself.

7.Refer to the warnings on the charger power cord label. Read the warnings before operating the unit for the first time. Read all of the instructions in this manual before using this product.

8.Never use an extension cord with the charger.

9.Shock hazard - make sure the plug is fully inserted into the wall outlet so that there are no exposed blade surfaces.

10.Children should be supervised when using the charger.

11.Do not insert fingers into the charger coupler.

12.To reduce the risk of fire, connect only to a circuit provided with 40 amps maximum branch circuit overcurrent protection installed in accordance with NEC and local electrical code.

13.Make sure your space is well-ventilated, especially while charging the battery.

## Lithium Battery Pack Protection Mode and Operation

### Protection Mode

If your battery was manufactured after May 1, 2024 (or has updated firmware), it features Protection Mode, which will delay entry into protection mode when not in use for extended periods, putting the battery into a power-saving sleep state to avoid over-discharging the battery. The activation conditions for Protection Mode depend on the battery's SOC status and discharge status.

**Conditions for the battery to enter Protection Mode are as follows:**

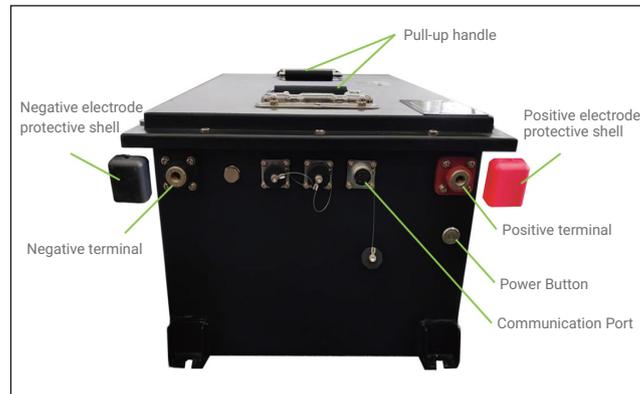
- SOC = 21%-100%, time greater than 15 days;
- SOC < 20%, time greater than 48 hours;
- 0.5A-2A low-current discharge, time greater than 3 hours.

In Protection Mode, the battery is in a sleep state, and the LED light of the power switch button is not lit. To wake the battery from power-saving mode, you can either press the switch button or enter the charging state.

If your battery enters Protection Mode, and the SOC is <50% after waking up, it is recommended to fully charge the battery before using it.

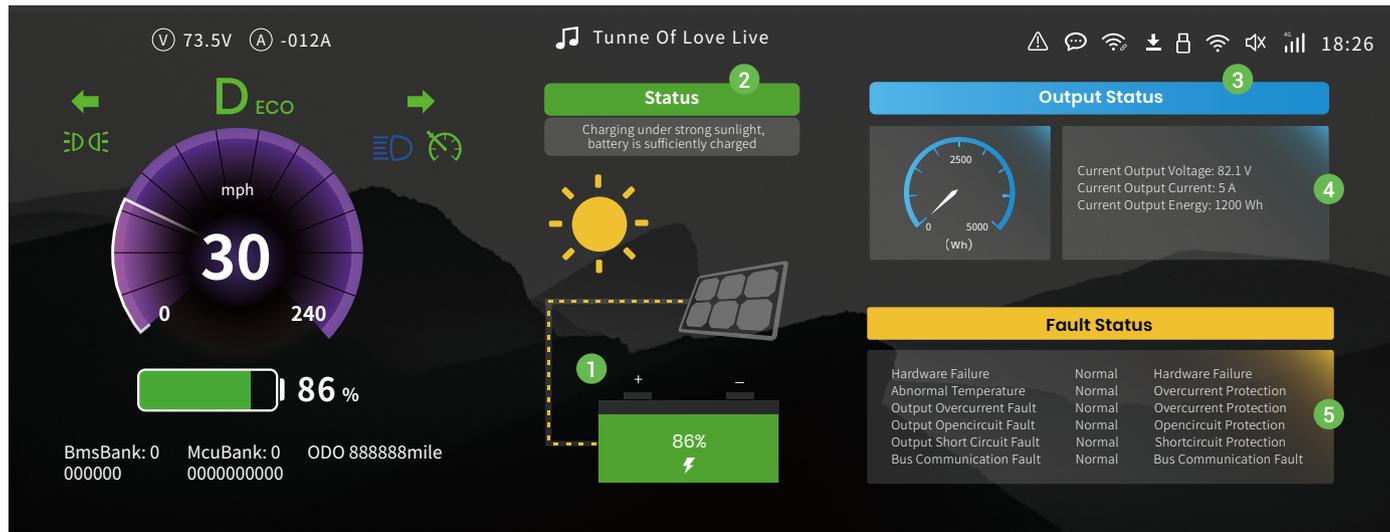
## Battery Operation

The battery is securely fastened to the body with bolts, the battery's positive and negative terminals and communication wires are reliably connected, and the battery switch button is in the "ON" state. Only when all of the above operating conditions are met can the vehicle be operated.



## Solar Power

\*Applicable to vehicles equipped with a solar power system.



- 1. Solar Mode Indicator
- 2. Solar Operating Status Display

- 3. Solar Power Output (Per Session)
- 4. Solar Output Parameter Display

- 5. Solar System Fault Indicator

## Solar Power

\*Applicable to solar configurations

### 1.Solar Charging Mode Indicators

Icon/Status	Description
	Ample Sunlight Charging normally under strong sunlight
	Weak Sunlight Charging at low current under insufficient sunlight
	No Sunlight Charging stopped due to lack of sunlight

### 2.Solar Operating Status Display

Text-based display that reflects the three solar charging modes above.

### 3.Solar Output Parameters

Real-time display of: Output Voltage Output Current  
Session-based Charging Energy

The session energy value resets automatically 30 minutes after the solar output stops, and restarts upon the next output.

### 4.Solar System Fault Status

Displays current operational faults in the solar system.

\*Temporary fault indicators may appear due to sunlight conditions, temperature, or environmental factors. These will automatically resolve as conditions improve.

\* If a fault persists and does not automatically recover, please contact after-sales support or your local dealer.

### Maintenance & Safety Reminders

- 1.The solar panel is a precision photovoltaic component.Do not disassemble, bend, or strike it under any circumstances.
- 2.Keep the surface of the solar panel clean to ensure optimal performance.
- 3.Damage caused by external forces such as stone impacts, hail, or punctures is not covered by warranty.

# Charger

## Charger Description

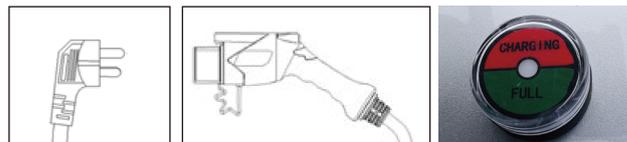
The on-board charger is installed on the electrical mounting plate behind the traction battery and communicates with the traction battery via CAN bus. After connecting to the power supply, the charger will output the corresponding voltage and current according to the charging demand of the traction battery, with a maximum output voltage of >DC 48V and a maximum output current of >DC 20A.

The charger is connected to the AC power grid via the charging socket and charging plug located in the underseat storage compartment. It converts AC 110V alternating current to direct current to charge the traction battery.



## Charging Procedure

1. The charger dynamically outputs voltage and current according to the requirements of the battery control system, ensuring that the battery is in its optimal working state.
2. Open the charging port cover and insert the charging plug of the charging cable into the charging socket to connect the vehicle.
3. Connect the other end of the charging cable to a 110V household power supply.
4. When charging begins, the charging indicator light "CHARGING" will flash. When the battery is fully charged, the charging indicator light "FULL" will illuminate.
5. Once charging is complete, first unplug the charging cable from the household power supply, then disconnect the charging cable from the on-board charging socket, and confirm that the charging port cover is returned to its original position.



## Vehicle Charging Power Supply Requirements

The vehicle is designed to accept AC power from an AC110V - 140V outlet, and the power supply should be capable of at least 16A output.

### **Warning**

1. Do not immerse the charging equipment in water or other liquids. Otherwise, it may cause fire, serious personal injury, or death.
2. Do not charge the vehicle when the charging equipment is faulty. Otherwise, it may cause fire, serious personal injury, or death.
3. Non-professionals should not open the charging equipment. Otherwise, it may cause personal injury, death, or property damage.
4. Install the charging equipment according to local regulations. Otherwise, it may cause personal injury, death, or property damage.



# Brakes

## Brake Operation

Ensure that the brakes are functioning properly. When the brake pedal is depressed with moderate pressure, the vehicle should come to a smooth, straight stop. If the vehicle pulls to one side or fails to stop, stops suddenly, or makes a grinding or squealing noise, have the brake system inspected and adjusted as required. Continuous, moderate pressure on the brake pedal should lock the wheels, but using less pressure should allow for a slow, gradual stop.

## Brake Precautions

### ⚠ Warning

Do not use fluid other than the recommended brake fluid as this will reduce brake efficiency. Use of incorrect fluid could result in the loss of vehicle control, serious personal injury or death.

### ⚠ Warning

Only use brake fluid from a sealed container. Contamination with dirt, water, petroleum products or other materials may result in brake system damage or failure. Failure to adhere to this warning could result in the loss of vehicle control, serious personal injury or death.

### ⚠ Warning

Do not allow the fluid to touch your skin or eyes. If this happens, rinse the affected areas immediately with plenty of water and contact your physician.

### ⚠ Warning

The brake system could be affected if the brake fluid level is below the MIN mark or above the MAX mark on the brake fluid reservoir.

## Locating the Brake Fluid Reservoir Checking the Brake Fluid



01. Park your vehicle on a level surface.

02. Look at the brake fluid reservoir to see where the brake fluid level is relative to the MIN and the MAX marks on the reservoir.

**Note:** To avoid fluid contamination, the reservoir cap must remain in place and fully tight, unless you are adding fluid. Location of reservoir is typically underneath the dashboard component

## Brake Fluid Specification

Use fluid that meets the defined specification and viscosity grade. (DOT4)

If you do not use fluid that meets the defined specification and viscosity grade, it could result in:

- Component damage that your vehicle warranty does not cover
- Reduced brake performance.

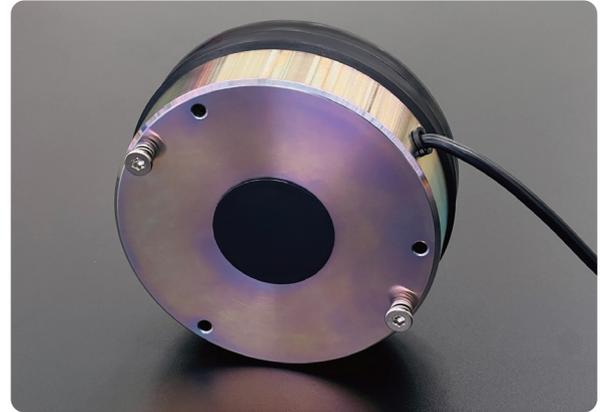
## Electromagnetic Brakes

Your vehicle is equipped with electromagnetic brakes. Please observe the following precautions when using them:

1. The electromagnetic brake will automatically engage when the vehicle comes to a complete stop.
2. The electromagnetic brake will automatically disengage when the accelerator pedal is depressed while the vehicle is in gear.
3. The manual EMB function can be used if the vehicle needs to be pushed manually. The manual EMB switch is located under the rear seat on the right side of the battery. When the switch is pushed to the EMB side, the battery will output current to the electromagnetic brake, keeping it in the released position. In this position, the vehicle can be pushed or towed. When the vehicle reaches the desired location, be sure to push the EMB switch to the RUN position.
4. When the vehicle's EMB switch is in the EMB position, the vehicle will not have automatic braking capability and can move freely. Please do not leave the vehicle unattended while in the EMB position, as the vehicle's free movement could injure others.
5. Do not leave the EMB switch in the EMB position for extended periods of time, as this could cause irreversible damage to the electromagnetic brake.
6. If the vehicle's battery fails and is unable to output voltage, the EMB switch will not be able to release the electromagnetic brake. In this case, the electromagnetic brake can be released manually. For specific instructions, see the manual release of the electromagnetic brake.

## Manual Release of Electromagnetic Brake

1. The electromagnetic brake is installed on the rear axle, on the left side of the vehicle. It can be observed from behind the left rear wheel.
2. Two protruding hex screws can be observed on the electromagnetic brake.
3. Use a 6mm hex key to gently tighten the protruding screws. (Do not overtighten.)
4. Tightening the protruding screws will release the brake, allowing the vehicle to roll.



# Rear-View Camera

⚠ Warning

A reversing camera system is a reversing aid that uses a camera to capture real-time footage of the area behind the vehicle and displays it on the vehicle's screen, allowing the driver to see what is behind the vehicle directly.

⚠ Warning

The corners of the bumper or under the bumper may not be visible on the screen because the camera system has a limited field of view.

⚠ Warning

When reversing, it is important to use the reversing camera system in conjunction with the interior and side-view mirrors, and to pay close attention to the surroundings to ensure a safe reversing maneuver.

⚠ Warning: Reverse Slowly!

Failure to follow this instruction could result in loss of control of your vehicle, personal injury, or death.



# Loading Capacity

Ensure your vehicle's load remains within the manufacturer's specified weight limit. Properly loading your vehicle provides maximum return of vehicle design performance. Before you load your vehicle, become familiar with the following terms for determining your vehicle's weight rating, from the vehicle's Safety Compliance Certification Label.

**⚠ Warning**

The appropriate loading capacity of your vehicle can be limited either by volume capacity (how much space is available) or by payload capacity (how much weight the vehicle should carry). Once you have reached the maximum payload of your vehicle, do not add more cargo, even if there is space available. Overloading or improperly loading your vehicle can contribute to loss of vehicle control and vehicle rollover.

**⚠ Warning**

Exceeding the Safety Compliance Certification label vehicle weight limits can adversely affect the performance and handling of your vehicle. .which causes damage and can result in the loss of control of your vehicle, serious personal injury or death.

**⚠ Warning**

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

**⚠ Warning**

Do not exceed the GVWE or the GAWR specified on the certification label.

**⚠ Warning**

When loading the roof racks, we recommend you evenly distribute in the load, as well as maintain in a low center of gravity. Loaded vehicles, with higher centers of gravity, may handle differently than unloaded vehicles. Take extra precautions, such as slower speeds and increased stopping distance, when driving a heavily loaded vehicle.



<b>VEHICLE LOADING</b>	Read the owner's manual and the warnings on the dashboard.	Vehicle weight rating: 662 lbs (300 kg) on level ground only. Includes occupants and cargo weight.
------------------------	--	--

# Towing

## Towing Warnings

Do not tow with this vehicle.

### ⚠ Warning

Exceeding any vehicle weight rating can adversely affect the performance and handling of your vehicle, cause vehicle damage and can result in the loss of control of your vehicle, serious personal injury or death.



# Fuses

## Fuse Box

- 1.The fuse box is located on the right side of the power battery box inside the seat bucket.
- 2.The fuse box cover is labeled with the corresponding fuse usage and numerical information.

## Fuse Replacement Precautions

### ⚠ Warning

Always disconnect the vehicle's power battery power switch before servicing high-current fuses.

### ⚠ Warning

Use a light or electrical tester to preliminary check the fuse and confirm that it is blown before considering replacement.

### ⚠ Warning

When replacing a fuse, make sure the amperage and other parameters match the original fuse.

### ⚠ Warning

Incorrect fuse installation may cause fire, never use unprofessional materials such as wire to replace fuses.



# Maintenance

## Wheel Replacement

To remove and install a wheel on your vehicle:

1. With the wheels blocked to prevent the vehicle from moving, loosen the wheel nuts.
2. Elevate the vehicle with a jack and remove the wheel nuts and the wheel.
3. Reverse the removal steps when installing the wheel.

### ⚠ Warning

Ensure the battery is powered off and gear knob in "N" position with one-button start "OFF" before starting any wheel or brake maintenance. Failing to do so could inadvertently start the vehicle, leading to movement that may result in death or severe injury.

## Brake Adjustment

Before you operate the vehicle, press down on the brake pedal several times to make sure the brakes are functioning properly.

### ⚠ Warning

Consult your dealer before using your vehicle if you suspect brake problems. Brake failure could result in a serious accident. Death or serious personal injury can result from failing to comply with the safety instructions in this manual.



Non-Lifted Truck  
Lifting Points



Lifted Truck  
Lifting Points

## Jacking Points

### Lifting Points on Non-Lifted Trucks

1. Front Frame Just Below Front Bumper
2. Rear Lifting Points on Rear Axle Half-Shafts

### Lifting Points on Lifted Trucks

1. On Frame Floor

## Regular Maintenance Chart

Regular maintenance is essential to ensure optimal performance and safe operation of your electric vehicle.

	Inspection Items	Daily Inspection	100miles 160km Per Month	600miles 1000km Every6 Months	1200miles 2000km Per Year	2500miles 4000km Every 2 Years	5000miles 8000km Every 4 Years
Pre-Trip Inspection	Electrical capacity	S	S	S	S	S	S
	Clean the battery case and check if the battery terminals are tight.	S	S	S	S	S	S
	Check the brake pedal travel to make sure it meets the requirement, and adjust if necessary.	C	CA	CA	CA	CA	CA
	Check steering operation	C	C	C	C	C	C
	Check the tire pressure, tread depth, and tire surface for any damage.	C	CA	CA	CA	CA	CA
	Check to make sure that all bolts, nuts, screws, and rivets are tight.	C	C	C	C	C	C
	Check to make sure that the lighting system is working properly.	C	C	C	C	C	C
Check the wiring harness connections to make sure they are not loose or broken.		C	C	C	C	C	
Per Month	Clean pedal section		CL				
	Check all wiring to see if there's any crack, aging or wearing point			C	C	C	C
Per Year	Check if the damper is leaking oil or the spring is damaged			C	C	C	C

S: "Service". This means that the item should be inspected or serviced at the specified interval.  
 C: "Check". This indicates that you should check the item.

CA: "Check and Adjust".  
 CL: "Clean and Lubricate".

This means you should inspect the item and make any necessary adjustments.  
 This indicates that you should clean and then lubricate the specified item.

# Storing the Vehicle



## Preparation

1. Ensure tire pressure is set to: 230kPa (33 psi).
2. Clean the exterior of the vehicle.
3. For short-term storage (less than 30 days), turn off the key ignition power, as indicated in Page 37 label No. ④
4. For long-term storage (more than 30 days), turn off the power battery power switch.
5. Cover the vehicle with a breathable car cover and store it in a dry, well-ventilated area.

# Operation and Control



## EMB Switch

The EMB switch is located on the right side of the power battery box inside the seat bucket. Pull the lever to the "RUN" position to turn on the power to the entire vehicle. Pull the lever to the middle position to turn off the power to the entire vehicle. Pull down the lever to the "EMB" position to release the electromagnetic force to push the entire vehicle.



## One-Button Start

With the remote key within range of the vehicle, press the one-button start switch to turn the vehicle on or off. The vehicle will not power on if the remote key is not within range of the vehicle.



## Gear Knob

Depress the brake pedal and operate the to shift gears according to whether the vehicle is moving forward or backward. "R" is for reverse gear, "N" is for neutral, "D" is for drive gear, and "E" is for economy gear. When shifting from "D" gear to "E" gear, you do not need to depress the brake pedal; You can shift directly.



## USB Data Transfer

12V QC3.0 car interface + Type-C interface, waterproof and dustproof.



## Combination Meter

The circular instrument panel displays important information to the operator. The gear position, vehicle speed, battery level, and total mileage are continuously displayed while the vehicle is in operation. Additional information, such as vehicle battery voltage, operating current, motor speed, and alarm fault codes, can be viewed by using the page buttons. When lights such as turn signals, low beams, high beams, and hazard lights are in use, corresponding light icons will be displayed on the circular instrument panel.



## Combination Switch

This switch operates the turn signals, parking lights, low beams, high beams, and horn.

### ⚠ Note

Always use lights appropriately to ensure adequate illumination in low-visibility driving conditions.



## Brake Pedal/Accelerator Pedal

This vehicle is equipped with two braking systems:

1. Four-wheel hydraulic braking system;
2. Electromagnetic braking system (See the Electromagnetic Brake Operation section of this manual).

### ⚠ Warning

Always fully depress the brake pedal to ensure the vehicle is stopped when shifting gears. Shifting the gear knob while the vehicle is still in motion may damage the switch, speed sensor, motor, or other components.

### ⚠ Warning

Do not apply the brake pedal and accelerator pedal simultaneously. Using both pedals for more than a few seconds will limit power, which could make it difficult to maintain speed and could result in serious injury.

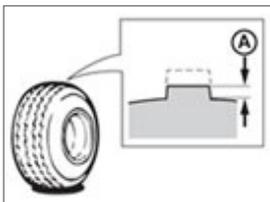
# Rims & Tires

## Tire Conditions



### Tire Air Pressure

Check your tire pressure before operating the vehicle



### Tire Wear Limit

Inspect the tire surface for any damage, cracks, or embedded objects. Replace the tire when the tread has worn down to 1 mm (0.04 inches).

- Wheel Lug Nut Torque: 100Nm
- Tire Pressure set as 230 Kpa (23psi)

## Tire Care Tips

### ⚠ Warning

Tires degrade over time due to a number of factors, such as weather, storage conditions, and usage (load, speed, inflation pressure). In general, tires should be replaced after six years, regardless of tread wear. However, heat from frequent high-load conditions in hot climates can accelerate the aging process and may require more frequent tire replacement.

You should also replace your spare tire at the same time you replace your road tires or after six years due to aging, even if it has not been used.

### ⚠ Warning

Underinflation is the most common cause of tire failure and can lead to catastrophic wheel failure, tread separation, or blowouts, resulting in loss of vehicle control and increased risk of injury. Underinflation increases sidewall flexing and rolling resistance, leading to heat buildup and internal tire damage. It can also cause uneven tire wear, unpredictable handling, and traffic accidents. A tire can lose half of its air pressure and still appear inflated!

### ⚠ Warning

When mounting wheels, be sure to clean any corrosion or dirt from the wheel mounting surfaces on the hub, brake drum, or brake rotor. Make sure to secure any fasteners that attach the rotor to the hub so they do not interfere with the wheel mounting surface. Installing a wheel without proper metal-to-metal contact on the wheel mounting surface can result in loose wheel nuts, wheel detachment, loss of vehicle control, personal injury or death.

# Vehicle Starting Procedure

## Vehicle Inspection

Pre-trip vehicle inspections are an important step in ensuring driving safety. A responsible driver should perform the necessary vehicle checks before each trip to make sure that it is in good working order. Please check the following items before each use:

Inspection Categories	Inspection Item	Inspection Details
General Inspection	Battery Condition	Please check whether the identification, nameplate, warning labels, etc. on the battery box body are clearly visible. Check the box surface for serious corrosion, deformation, cracks and other damage, and whether the mechanical interface between the battery box and the exterior is firm and reliable.
	Tires condition	Inspect the tire surface for damage, cracks, and any objects. When the tire tread wears down to less than 0.04 inches (1mm), replace the tire immediately.
	Body & Chassie	Carefully inspect the body and chassis for any damage or missing parts before each use.
Performance Inspection	Braking Pedal Operation	The brake pedal is marked with a "STOP" sign. When the vehicle is running, step on the brake pedal to check if the brake system is functioning properly and the brakes are responsive.
	Accelerator Pedal Operation	The accelerator pedal is marked with a "GO" sign. When the vehicle is powered on and the gear selector is in the forward "D" or reverse "R" position, pressing the accelerator pedal will automatically release the electromagnetic brake and cause the vehicle to move in the selected direction (forward or reverse). As the accelerator pedal is pressed, the speed will increase until full speed is reached. When the accelerator pedal is released, the power will be cut off and the motor will stop running.
	Reversing Buzzer	When the gear selector is shifted into the reverse "R" position, the reversing buzzer will emit a warning tone.
	Steering System	Turn the steering wheel gently to the left and right. The vehicle should steer easily, and the steering wheel should not turn automatically. Check the steering system for excessive play. Move the steering wheel up and down, and back and forth. If you notice excessive play or hear any noises, it indicates that some components need to be replaced or adjusted. Please have the steering system serviced or repaired immediately.

## Starting the Vehicle

1. Confirm that you have carefully read this user manual.
2. Familiarize yourself with and understand the vehicle's controls, indicators, and operations.
3. Observe that all passengers are seated, have fastened their seat belts, and are holding onto the seat handles.
4. Determine the direction in which the wheels will turn.
5. After ensuring that there are no obstacles in front, press the one-key start button to power on the vehicle.
6. Depress the brake pedal while simultaneously switching the gear selector knob to select the driving direction.
7. Slowly depress the accelerator pedal, the electromagnetic brake disengages, the vehicle begins to move, and as the accelerator pedal is gradually depressed, the speed will gradually increase until full speed is reached.

### Warning

When driving downhill, the operator must control the vehicle's speed. Steep terrain or other conditions may require the use of both pedal braking and electromagnetic braking.

## Parking and Exiting the Vehicle

1. When the vehicle needs to slow down during driving, move your right foot to the brake pedal and gently press down on the brake pedal to slow the vehicle down to a stop.
2. After the vehicle has stopped, the electromagnetic brake will engage immediately to prevent the vehicle from rolling.
3. After shifting the gear selector knob to neutral "N", press the one-key start button to turn off the entire vehicle power.

**Note:** Switching the gear selector knob to neutral 'N' while driving will cause the vehicle to lose power and slow to a stop.

**Note:** When leaving the vehicle for an extended period of time, turn off the entire vehicle power and take the remote key with you to avoid accidents.

**Note:** When the vehicle is parked for a long time, it is necessary to disconnect the power battery switch in the seat bucket and the whole vehicle power switch to reduce the power battery power consumption and avoid the situation that the vehicle cannot be started next time.

**DACH**

# The Earth At Your Wheel

**DCD VEHICLE CORP.**  
[www.dachvehicles.com](http://www.dachvehicles.com)