

## **Owner's Manual**

Ambassador Series Models A4, A4L, A6, A6L, AV

### INTRODUCTION

Welcome to the Royal Electric Vehicle Family. You have chosen to buy one of the finest, safest, and most reliable golf carts on the market today. Your Royal EV offers many safety features that most golf carts on the market today do not offer. Please protect your investment to ensure that your Royal EV provides years of reliable superior performance by reading and following the instructions in this manual.

Your comfort and safety are important to us as well, so we urge you to read and follow step by step operating instructions and safety precautions in this manual. These instructions should be followed to avoid the risk of severe personal injury.

Royal EV products are backed by a customer support system designed to offer you fast courteous service. In the event your cart needs service, please contact your local authorized dealer who can provide technical advice, provide warranty work, and sell parts.

We hope you consider the owner's manual a permanent part of your golf car. If you sell your Royal EV please include the manual so the next owner will have the important operating, safety, and maintenance information it contains.

Thank you and welcome to the Royal EV Family.

#### **Royal Electric Vehicles**

Calhoun, Ga 888-821-9446



#### **General Book Info**

**NOTE:** This manual represents the most current information at the time of publication. Royal EV is continually working to further improve its vehicles and other products. These improvements may affect servicing procedures. Any modification and/or significant change in specifications or procedures will be forwarded to all Royal EV dealers and will, when applicable, appear in future editions of this manual.

> Royal EV reserves the right to change specifications and designs at any time without notice and without the obligation of making changes to units previously sold.

### SAFETY DECAL AND FEATURE IDENTIFICATION

The following pages contain safety decal and feature identification information. For detailed information on specific features, read the appropriate section in this manual.

#### Royal EV

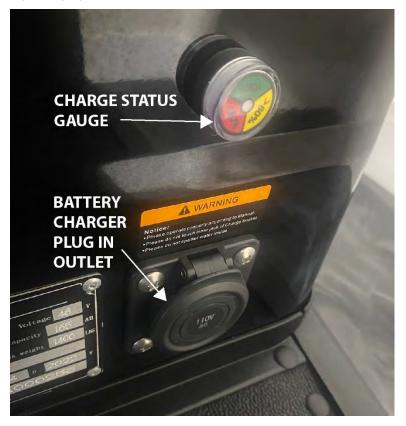




**Gauge Display** 

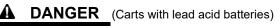
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#### **Battery Charging**



#### GENERAL WARNINGS

The following safety statements must be adhered to whenever the vehicle is being operated, repaired, or serviced. Vehicle feature identification information is also included. **See Safety Decal and Feature identification on page 3.** Other specific safety statements appear throughout this manual and on the vehicle.



- Battery Explosive gases! Do not smoke. Keep sparks away from the vehicle and service area. Ventilate when charging or operating vehicle in an enclosed area.
- The vehicle will not provide protection from lightning, flying objects, or other storm-related hazards.

### A WARNING

- Follow the procedures exactly as stated in this manual, and heed all DANGER, WARNING, and CAUTION statements in this manual as well as those on the vehicle and battery charger.
- Children requiring a child safety seat must not ride in vehicle.
- Do not leave children unattended in vehicle.
- Prior to leaving the vehicle unattended or servicing the vehicle, place the Forward/Reverse handle or switch in the NEUTRAL position, turn the key switch to the OFF position, and remove the key. Chock the wheels when servicing the vehicle.
- Improper use of the vehicle or failure to properly maintain it could result in decreased vehicle performance, severe personal injury, or death.
- Any modification or change to the vehicle that affects the electrical system, stability or handling of the vehicle, or increases maximum vehicle speed beyond factory specifications, could result in severe personal injury or death.
- Check the vehicle for proper location of all vehicle safety and operation decals and make sure they are in place and are easy to read. See Safety Decal and Feature identification on page 3.
- Only trained technicians should service or repair the vehicle or battery charger. Anyone doing even simple repairs or service should have knowledge and experience in electrical and mechanical repair.
- Use insulated tools when working near batteries or electrical connections. Use extreme caution to avoid shorting of components or wiring.

#### DISABLING THE VEHICLE

- 1. Turning key off engages the parking brake.
- 2. Chock wheels for additional safety.

#### INTERNATIONAL SAFETY SYMBOLS ON BATTERIES

Anyone using, repairing, or servicing the vehicle must understand and heed the safety symbols on the vehicle battery or batteries.



#### **GENERAL INFORMATION**

Throughout this manual, important features unique to each model are highlighted. We urge the owner/operator to read and understand this manual, and to pay special attention to the features specific to his/her vehicle(s).

#### MODEL IDENTIFICATION

The serial number of each vehicle is printed on a bar code decal mounted below the front passenger on the bottom.

### **CONTROLS AND INDICATORS – ELECTRIC VEHICLES**

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- Make sure the driver is familiar with all controls and operating procedures before allowing the vehicle to be driven.
- Do not shift the Forward/Reverse switch while the vehicle is moving. To avoid injury to an unsuspecting passenger or damage to the vehicle, always bring the vehicle to a full stop before shifting the Forward/Reverse switch.
- Release the accelerator pedal and then press the brake pedal firmly until the vehicle stops. To avoid unintentionally starting or rolling the vehicle, place the Forward/Reverse switch in the NEUTRAL position, turn the key switch to the OFF position, and remove the key when leaving the vehicle.

#### **KEY SWITCH**

The key switch is mounted on the dash to the right of the steering column. It has two positions, OFF and ON  $\,$ 

#### See following NOTE.

**NOTE:** When the key is turned to the OFF position, the main vehicle systems are disabled. The key switch may be used as an emergency stop.

The key can be removed only when the key switch is in the OFF position

#### FORWARD/REVERSE CONTROL

The **D** (DRIVE FORWARD) and **R** (REVERSE) are clearly marked on the dashboard. Push down the "D" Top side of the switch to operate the vehicle in the forward direction, or push down the "R" bottom side of the switch to operate the vehicle in reverse. When the rocker switch is positioned in the NEUTRAL position, with neither side down, the vehicle will not operate if the accelerator pedal is pressed. The reverse buzzer will sound as a warning when the Forward/Reverse switch is in the REVERSE position.



#### ACCELERATOR PEDAL

The accelerator pedal is the pedal on the right. When the key switch is in the ON position, and the Forward/Reverse switch is in either the FORWARD or REVERSE position, pressing the accelerator pedal will automatically release the park brake and start the vehicle moving in the direction selected (forward or reverse). As the accelerator pedal is pressed, speed will increase until full speed is reached. When the accelerator is released, power will be cut off and the motor will stop running.

**Walk Away Braking:** This vehicle is equipped with a magnetic parking brake. Turning the ignition key to off position engages the brake. Do not try to push cart when magnetic brake is engaged. Lift seat and flip tow-run silver toggle switch located on the passenger side of the vehicle under the seat. Then turn the key to the on position to disengage the park brake. This will put the cart in tow mode so it can be pushed safely. When the batteries are recharged remember to flip the switch back to the run position or the cart won't run.



#### **BRAKE PEDAL**

The brake pedal is the large pedal on the left. To slow or stop the vehicle, press the brake pedal with your foot

The park brake will release automatically when the key is turned to the on position and the accelerator pedal is pressed.

### PRE-OPERATION AND DAILY SAFETY CHECKLIST

Each Royal EV has been thoroughly inspected and adjusted at the factory; however, upon receiving your new vehicle(s), you should become familiar with its controls, indicators, and operation.

Use the following checklist as a guide to inspect the vehicle. This checklist should be used daily to ensure that the vehicle is in proper working condition. Any problems should be corrected by an authorized Royal EV dealer.

Any vehicle not functioning correctly should be removed from use until it is properly repaired. This will prevent further damage to the vehicle and avoid the possibility of injury due to unsafe conditions.

#### Pre-Operation and Daily Safety Checklist

Use the following checklist in conjunction with the Daily Pre-Operation and Safety Checklist as a guide to inspect the vehicle and check daily for proper operation. Any problems should be corrected by an authorized Royal EV dealer.

#### All Vehicles

- Forward/Reverse switch: Check for proper operation.
- **Brakes:** Be sure the brakes function properly. When brake pedal is pressed using moderate pressure, the vehicle should come to a smooth, straight stop. If the vehicle swerves or fails to stop, stops abruptly, or makes a grinding or squeaking noise, have the brake system checked and adjusted as required. Continued, moderate brake pedal pressure should be able to lock the wheels, but using lesser pressure should also permit a slow, gradual deceleration.
- **Reverse buzzer:** The reverse buzzer will sound as a warning when the Forward/Reverse handle or switch is in the REVERSE position.
- **Steering:** The vehicle should be easy to steer and should not have any play in the steering wheel.
- **General:** Listen for any unusual noises such as squeaks or rattles. Check the vehicle's ride and performance. Have a Royal EV dealer investigate anything unusual.
- Accelerator: With the key switch in the ON position and the Forward/Reverse switch in the FORWARD position, as the accelerator pedal is pressed, the motor should start, and the vehicle should accelerate smoothly to full speed. When the pedal is released it should return to the original position. All Royal EV vehicles operate at reduced speed in reverse.

### **DRIVING INSTRUCTIONS**

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- Make sure the driver is familiar with all controls and operating procedures before allowing the vehicle to be driven.
- No more than two persons per bench seat should be on the vehicle at one time.
- The vehicle is not specially equipped for handicapped persons. Be sure all persons can properly operate the vehicle prior to allowing them to drive the vehicle.
- Be sure all passengers are capable of securing themselves in a vehicle before allowing them to ride.
- For night use, the vehicle is equipped with headlight, taillights, blinkers, and brake lights.
- Stop the vehicle before shifting the Forward/Reverse switch. Failure to do so
  may result in injury to an unsuspecting passenger and (or) damage to the
  vehicle.
- To help avoid being struck, do not stand in front of or behind the vehicle.
- Operate the vehicle from the driver seat only.
- To help prevent falls from the vehicle, remain seated in a moving vehicle and hold on to hand holds or handrails at all times. Driver should keep both hands on the steering wheel when the vehicle is in motion.
- To help prevent the possibility of serious injury, keep your entire body inside the vehicle.
- Do not leave children unattended on vehicle.
- To help prevent overturning the vehicle, drive slowly straight up and down slopes. Avoid driving the vehicle on slopes exceeding 30% incline.
- To help avoid the possibility of losing control of or overturning the vehicle, reduce speed for adverse driving conditions such as wet grass, rough terrain, or when turning.
- Obey all local rules concerning golf cars.
- The vehicle should be driven in only specified areas by trained drivers.
- Do not drive while under the influence of alcohol, drugs, or medications.

#### • To prevent overturning the vehicle, drive slowly in turns.

- Use brakes to reduce speed when coasting downhill.
- Do not drive the vehicle under tree limbs, bridges, tunnels, or other objects that are less than 84 inches (203 cm) from the ground.

No one should drive the vehicle without first being instructed in the proper operation and use of the vehicle's controls. An experienced operator should accompany each first-time driver on a test drive before allowing him/her to operate the vehicle alone.

To ensure safe operation of the vehicle, follow exactly and in order, all the following procedures. Read and understand all instructions prior to driving the vehicle.

#### STARTING THE VEHICLE

- 1. Study and understand controls.
- 2. Make sure everyone is seated and holding onto seat handles or handrails.
- 3. Read safety and information decals located on the vehicle.
- 4. Make sure wheels are turned in desired direction.
- Place Forward/Reverse switch in neutral, then turn key to the on switch. Select direction by placing Forward/Reverse handle or switch in desired position (F = forward or R = reverse). A buzzer will sound as a warning when the Forward/Reverse handle or switch is in the REVERSE position.
- Slowly press accelerator pedal. The park brake will release automatically, and the vehicle will start to move. As the accelerator pedal is pressed, speed will increase until full speed is reached. See following WARNING.

### A WARNING

**NOTE:** If the Forward/Reverse switch is shifted into the NEUTRAL position, power will be cut off and the engine will stop running.

#### See General Warnings.

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- Turn the key switch to the OFF position, remove the key, and leave the Forward/Reverse switch in the NEUTRAL position during storage.
- For lead acid batteries: Do not attempt to charge frozen batteries or batteries with bulged cases. Discard the battery. Frozen batteries can explode.
- For lithum batteries: Never charge batteries under 36 F. This will cause permanent damage to the battery.

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• Batteries in a low state of charge will freeze at low temperatures (lead acid batteries only).

To avoid exposing electrical components to moisture and subsequent damages, do not use any type of pressure washing or steam cleaning equipment to wash the cart.

#### PREPARING THE ELECTRIC VEHICLE FOR EXTENDED STORAGE

To keep batteries fully charged during storage:

 Plug the battery charger into the car. Leave battery chargers plugged in during storage. The charger will automatically activate when necessary. (see page 20, lithium battery warranty-battery tips)

### MAINTENANCE

To ensure trouble-free vehicle performance, it is very important to follow an established preventive maintenance program. Regular and consistent vehicle maintenance can prevent vehicle downtime and expensive repairs that can result from neglect. Use the Pre-Operation and Daily Safety Checklist beginning on page 16, the Performance Inspection, and the following Periodic Service Schedules and Periodic Lubrication Schedules to keep the vehicle in proper working condition.

Any vehicle not functioning correctly should be removed from use until it is properly repaired. This will prevent further damage to the vehicle and avoid the possibility of injury due to unsafe conditions.

Contact your local Royal EV dealer to perform all repairs and semiannual and annual periodic service.

### A WARNING

- If any problems are found during scheduled inspection or service, do not operate the vehicle until repairs are made. Failure to make necessary repairs could result in fire, property damage, severe personal injury, or death.
- Only trained technicians should service or repair the vehicle or battery charger. The appropriate instructions must be used when performing maintenance, service, or accessory installation.

#### PERIODIC SERVICE SCHEDULES

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• Service, repairs, and adjustments must be made per instructions in the maintenance and service manual.

**NOTE**: If the vehicle is constantly subjected to heavy use or severe operating conditions, the preventive maintenance procedure should be performed more often than recommended in the periodic service and lubrication schedules.

Both the Periodic Service Schedule and Periodic Lubrication Schedule must be followed to keep vehicle in optimum operating condition.

### **BATTERY CHARGER**

### A WARNING

- Only trained technicians should repair or service the charger. Contact your nearest authorized Royal EV dealer.
- Have worn, cut, or damaged power cords or wires replaced immediately.
- Do not use near fuels, grain dust, solvents, thinners, or other flammables. Chargers can ignite flammable materials and vapors.
- Do not expose to rain or any liquid. Keep the charger dry.
- Do not connect a stationary charger to the receptacle if the charger cord, plug, or the vehicle receptacle is broken, damaged, or does not make a good electrical connection. Fire or personal injury can result. Have a qualified technician replace the parts.
- When the charger is on, the charger DC cord may be disconnected from the vehicle receptacle slowly. Jerking or pulling the DC cord out quickly could cause arcing and burning that could damage the plug and receptacle and could cause batteries to explode.

### CAUTION

• The battery charger provided with this vehicle is approved for use only with the battery type originally installed in the vehicle. Using a different battery type (different brand, different capacity, etc.) can cause under or overcharging and subsequent battery damage unless the charger is first reprogrammed with a new charging algorithm. Royal EV only recommends OEM replacement batteries. Contact your authorized Royal EV dealer with any questions about battery and charger compatibility or algorithm updates.

### A WARNING

- Two chargers can share a circuit, which should be a dedicated 15 or 20 amperes separately protected (circuit breaker or fuse) single-phase branch circuit that complies with all applicable electrical codes for the location.
- Connect the charger AC supply cord to a properly grounded, three-wire outlet within the voltage and frequency range shown on the charger.
- Do not use an adapter to plug the charger with a three-prong plug into a two-prong outlet. Improper connection of the equipment-grounding conductor can result in a fire or an electrical shock.
- Place all cords so they will not be stepped on, tripped over, or otherwise subjected to damage or stress.

To reduce the risk of electric shock, the battery charger must be grounded. The charger is equipped with an AC electric cord having an equipment-grounding conductor and a grounding type plug. The AC plug must be connected to an appropriate receptacle that is properly installed and grounded in accordance with the National Electrical Code and all local codes and ordinances.

The use of an extension cord with the charger should be avoided.

#### PLUG AND RECEPTACLE

The charger cord and plug are wear items and should be inspected daily. Visually inspect them for cracks, loose connections, and frayed wiring; they must be replaced when worn or damaged.

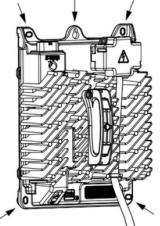
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- If pins are bent, the plug must be replaced immediately. The plug is not serviceable. Do not attempt o repair the plug or straighten bent pins. Contact your local authorized Royal EV dealer for repairs.
- Disconnect the AC cord prior to lubricating the plug and receptacle.

**NOTE:** If the warning tag has been damaged or removed from the DC cord, have it replaced immediately.

### A WARNING

• Place all cords so they will not be stepped on, tripped over, or otherwise subjected to damage or stress.





Charger Mounting Holes

Examples of Charger Mounting Orientation

#### CHARGER POWER CONNECTION FUSE

The vehicle charger power circuit has an in-line 30-amp fuse located near the solenoid.

#### AC INPUT VOLTAGE DETECTION

The charger automatically detects the AC input voltage and will operate at full power if the voltage is within the 100 to 240 VAC range. The charger also will function outside of that range down to 85 VAC and up to 270 VAC although charging times will be longer. Outside of the 85 to 270 VAC range, the charger will not operate.

#### LONG-TERM STORAGE

Royal EV chargers are designed to be left connected with AC power to the charger during off-season or long-term storage. (for lead acid batteries)

For lithium batteries, see page 21, lithium battery warranty-battery tips.

#### **CHARGING BATTERIES**

### A WARNING

- Do not rock or bend the plug. To connect the charger plug to the vehicle receptacle, grasp the plug handle and push the plug straight into the receptacle.
- Do not pull on the DC cord. Do not twist, rock or bend the plug. To disconnect the charger plug from the vehicle receptacle, grasp the plug by the handle and pull the plug straight out of the receptacle.
- Do not attempt to charge frozen batteries or batteries with bulged cases. Discard the battery in accordance with all environmental laws or return to an authorized Royal EV dealer. Frozen batteries can explode.
- Do not use a charger if any of the following conditions exist:
  - The plug is too loose or does not make a good connection.
  - The plug and receptacle feel hotter than normal during charge.
  - The plug pins or receptacle contacts are bent or corroded.
  - The plug, receptacle, or cords are cut, worn, have any exposed wires or are damaged in anyway.
- Using the charger with any of the above symptoms could result in a fire, property damage, personal injury, or death.

### CAUTION

- On all vehicles, turn off all accessories before charging batteries.
- The battery charger provided with this vehicle is approved for use only with the battery type originally shipped with the vehicle. Using a different battery type (different brand, different capacity, etc.) can cause under or overcharging and subsequent battery damage unless the charger is first reprogrammed with a new charging algorithm. Royal EV recommends only OEM replacement batteries. Contact your authorized Royal EV dealer with any questions about battery and charger compatibility or algorithm updates.

**NOTE:** When temperatures fall below 65 °F (18.3 °C), batteries charged in unheated areas should be placed on charge as soon as possible after use. Batteries are warmest immediately after use, and cold batteries require more time to fully charge (lead batteries only).

Because the charger has a storage charge feature that automatically checks and recharges the batteries as necessary, the charger can remain plugged to the vehicle throughout the storage period. (lead acid battery)

For lithium batteries, it is recommended that after the battery is fully charged, disconnect charge cord and turn off battery when not in use. (see page 21, lithium battery warranty- battery tips)

### **CLEANING THE VEHICLE**

The Royal EV is equipped with hand-washable front and rear bodies. Use only commercially available automotive cleaners with a sponge or soft cloth for normal cleaning. A garden hose at normal residential water pressure is adequate.

Royal EV does not recommend any type of pressure washing or steam cleaning. Such a process will expose electrical components to moisture. Moisture entering electrical components can result in water damage and subsequent component failure.

Use non-abrasive wax products. Battery acid, fertilizers, tars, asphalt, creosote, paint, or chewing gum should be removed immediately to prevent possible stains. **See following CAUTION.** 

### CAUTION

- Use of leveling or rubbing compounds will permanently dull finish of vehicle.
- Do not apply wax products to the black plastic material of the front and rear under-body, the front bumper, or the textured area of the rear beauty panel marked.
- Do not spray water or liquids directly on digital dash or batteries.

## Royal EV FOUR PASSENGER/ SIX-PASSENGER VEHICLE

The Royal EV four-passenger/six-passenger vehicle is designed to provide a smooth and comfortable ride for four/six passengers and is offered in electric power configuration. This owner's manual should be read thoroughly prior to operating the vehicle.

The Royal EV four-passenger/six-passenger vehicle should be driven and maintained as stated in this owner's manual with the following additions:

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- Vehicle should be driven at slower speeds when four persons are in the vehicle.
- Passengers should hold on to hand holds or hand rails at all times. Driver should keep both hands on the steering wheel while vehicle is moving.
- Do not leave children unattended on the rear seaT.
- No more than four persons should be on the four passenger vehicle at one time and six persons on a six passenger at one time.

#### MAINTENANCE

**NOTE:** If the vehicle is constantly hauling heavy loads, the preventive maintenance procedures should be performed more often than recommended in the service and lubrication schedules.

### **VEHICLE SPECIFICATIONS**

Drive Motor:	5 KW 48 volts AC (4 Passenger and 6 Passenger))			
Electrical syst	tem: 48 Volts AC			
Batteries:	100 amp lithium			
Battery Warra	<b>nty:</b> 5 year lithium			
Charger:	automatic 48 volt on board			
Brakes:	4 wheel hydraulic brakes (front disc, rear drum)			
Front Suspension: coil over strut with A arm rear suspension leaf spring				
Controller: 4	100 amp			
Max Speed:	29 mph			
Braking Distance: 7 to 9 feet				
Windshield:	Acrylic fold down			
Charge Ports:	USB			
Tire Pressure:	Between 15 and 18 psi			
Frame:	powder coated steel			
Deck Height:	A4 and A6 - 12 inch deck height A4L  and A6L – 18 inch deck height			
	Digital Dash showing mph, odometer, and battery charge			
Max Climb:	25% grade			

### WARRANTY CARD



#### LIMITED WARRANTY TERMS AND CONDITIONS FOR ELECTRIC VEHICLES

Royal Electric Vehicles LLC ("REV") hereby warrants that any new Royal Electric Vehicles purchased from REV, or any Authorized Dealer in the United States, will be free from defects in material and workmanship for THREE years from date of purchase, subject to the stated limitations. During the term of said warranty, any authorized REV service technician or REV dealer will, free of charge, repair or replace (at REV's option) any part determined to be defective by REV due to faulty workmanship or material from the factory. Parts used in warranty repairs will be warrantied for the balance of the vehicle's warranty period. All parts replaced under warranty become property of Royal Electric Vehicles LLC.

MAJOR COMPONENTS		PARTS & ACCESSORIES		
Frame	3 Years	Windshield	3 Years	
Electric Motor	3 Years	Seat Components (non-cushion)	3 Years	
Motor Controller	3 Years	Charger Cord	3 Years	
Onboard Battery Charger	3 Years	Charger Receptacle	3 Years	
Transaxle	3 Years	Body Panels	3 Years	
Brakes (excludes shoes/pads)	3 Years	Instrument Cluster	3 Years	
Suspension Components	3 Years	Bumpers	3 Years	
Steering Components	3 Years	Electrical Wires/Relays	3 Years	

EXCLUSIONS: Specifically EXCLUDED from this Limited Warranty are:

- Routine maintenance items, normal wear and tear, cosmetic deterioration, or electrical components damaged as a result of fluctuations in electrical current
- Damage to or deterioration of a vehicle resulting from inadequate maintenance, neglect, abuse, accident, or collision
- Damage resulting from installation or use of parts or accessories not approved by REV.
- Warranty repairs made by other than an REV Factory Service Center, or an authorized and qualified Dealer or designee.
- Warranty repairs made by other than an REV Factory Service Center or an authorized and qualified Dealer or designee shall void the Limited Warranty
- Damage or loss resulting from acts of nature, weather events, vandalism, theft, war or other circumstances over which REV has no control
- Any and all expenses incurred in transporting the Vehicle to and from REV or an authorized Dealer, technician, or designee for warranty service
- Warranty limited to six months on carts used for rentals or loaner carts in conjunction with other rentals such as renting
  property and a golf cart is included in property rental.

DISCLAIMER: THIS LIMITED WARRANTY IS THE SOLE AND EXCLUSIVE WARRANTY PROVIDED FOR THE VEHICLE AND IS MADE IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ALL SUCH OTHER WARRANTIES BEING EXPLICITLY DISCLAIMED.

LABILITY LIMITATIONS: IN NO CASE SHALL REV BE LIABLE FOR INDIRECT, INCIDENTAL, SPECIAL, PURTURE 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 ACHARGER, OR ANY DAMAGE OR LOSS TO THE PURCHASER OR ANY THIND PARTY FOR LOST TIME, INCONVENIENCE OR ANY ECONOMIC LOSS, WHETHER OR NOT REV WAS APPRISED OF THE FORSEEABILITY OF SUCH DAMAGES OR LOSSES. THE RIGHT OF PURCHASER TO RECOVER DAMAGES WITHIN THE LIMITATIONS SET FORTH IN THIS SECTION IS PURCHASER'S EXCLUSIVE ALTERNATIVE REMEDY IF THE LIMITED RERRATOR PRAVE REMEDY OF DEPARA OF ITS SESSENTIAL PURPOSE. THE PARTIES ACREE THAT THIS ALTERNATIVE REMEDY IF THE LIMITED RERRATOR PRAVE OF WARRANTY MUST BE BROUGHT WITHIN THREE (3) MONTHS FROM THE DATE THE WARRANTY LEGAL CLAIM OR ACTION ARISING THAT ALLEGES BREACH OF WARRANTY MUST BE BROUGHT WITHIN THREE (3) MONTHS THAT THE DATE THE WARRANTY CLAIM ARISES. THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL. RIGHTS AND YOU MAY HAVE OTHER RIGHTS THAT VARY FROM STATE TO STATE. SOME STATES DO NOT ALLOW THE EXCLUSION OF INCIDENTAL DAMAGES OR LIMITATIONS ON HOW LONG AN IMPLED WARRANTY MUST, AST, SO THE ADOVE EXCLUSIONS AND LIMITATIONS MAY NOT APPLY TO YOU.

WARNING: ANY MODIFICATION OR CHANGE TO THE VEHICLE OR BATTERY CHARGER WHICH ALTERS THE WEIGHT DISTRIBUTION OR STABILITY OF THE VEHICLE, INCREASES THE VEHICLE'S SPEED, OR ALTERS THE OUTPUT OF THE BATTERY CHARGER BEYOND FACTORY SPECIFICATIONS, CAN RESULT IN PROPERTY DAMAGE, PERSONAL INJURY OR DEATH. DO NOT MAKE ANY SUCH MODIFICATIONS OR CHANGES, SUCH MODIFICATIONS OR CHANGES WILL VOID THE LIMITED WARRANTY. REV DISCLAIMS RESPONSIBILITY FOR ANY SUCH MODIFICATIONS, CANRESS, OR SUCH ALTERATIONS THAT WOULD ADVERSELY IMPACT THE SAFE OPERATION OF THE VEHICLE OR BATTERY CHARGER.



### **Electric Vehicles**

#### LITHIUM BATTERY WARRANTY

The lithium battery in your new Royal EV has a five year warranty. The warranty is limited to malfunction of the battery. Damage of any kind to the battery which would include water damage or any physical damage to the battery other than scratches can void the warranty. The decision to warranty the battery is solely up to Royal EV. Royal EV will not withhold replacement of the battery under warranty, unless physical damage or evidence of neglect to the battery is apparent. The battery is warrantied for five years without prorating. Royal EV will also endeavor to inspect the battery from the inside to determine if the battery has been tampered with or damaged in any other way in order to determine warranty coverage.

#### **BATTERY TIPS:**

- There is an on/off button on the side of the battery on the drivers side. The battery should be charged when the battery is on. Turn the battery off when storing the cart for long periods of time or even overnight. This will save the charge on the battery and extend the charge duration.
- Leaving the battery on for extended periods can cause battery drain or go into sleep mode. If this happens, turn battery off, wait 3 minutes and turn battery back on.
- Never attempt to work on the battery for any reason. This will void your warranty.
- Make sure you do not run the battery until it is totally dead. This will lock up the electro magnetic park brake and you won't be able to move the car. This can also damage the brake and the motor.
- The cart will go into economy mode when the battery is less than 20% charged. When this happens, the car will slow down to around 10 mph. This alerts you that the battery will need to be changed soon.
- Make sure you always charge the battery to 100 percent whenever possible.
- Never charge battery below 36°F as this will cause irreversible damage to the battery cells and void the warranty.

### WARNING

Never allow a lithium battery to drop below 10% state of charge or the battery will go into protection mode requiring the battery to be sent back to the factory for a reset and recharge to restore the battery to working order at owner's expense.

#### WARRANTIES

#### Royal EV<sup>®</sup> LIMITED WARRANTY FOR Royal EV

Royal EV, LLC ("Royal EV") hereby warrants to the Original Purchaser, as those terms are defined herein, and subject to the provisions, limitations and exclusions in this limited warranty, that its new vehicle or new component purchased from Royal EV or an Authorized Dealer shall be free from defects in material and workmanship under normal use and service for the periods stated below, subject to the provisions, limitations and exclusions in this limited warranty. Customer is responsible to get vehicle to authorized dealer for warranty work.

This limited warranty covers material, workmanship and repair labor cost as to those items specifically listed below for the periods specified. Such repair labor shall be performed only by Royal EV, its Authorized Dealers, or a service agency approved by Royal EV. For repairs made by qualified technicians other than Royal EV's factory technicians or an Authorized Dealer, Royal EV will provide only the replacement parts or components.

	2+2	4+2	
VEHICLE MAIN FRAME		LIMITED LIFETIME	
SUSPENSION: Steering gearbox, steering column, shocks, and leaf springs.		3	
MAJOR ELECTRONICS: Solid state speed controller and battery charger.		3	
DEEP CYCLE BATTERY: 18 Month (see exclusions)		1.5	
PEDAL GROUP: Pedal group mechanical assembly, brake cluster assemblies, and brake cables.		3	
SEATS: Seat bottom, seat back, and armrests.	2	2	
CANOPY SYSTEM: Canopy, rear canopy supports, drainage system and structural accessory module (SAM).		3	
ELECTRIC POWERTRAIN: Electric motor, transaxle.		3	
BODY GROUP: Beauty panels and front and rear under-body. (excludes accident damage)		3	
ALL REMAINING COMPONENTS: GCOR, limit switches, voltage regulator, F&R switch, and options and accessories supplied by Royal EV, including components not specified otherwise.	3	3	

#### EXCLUSIONS

Excluded from any Royal EV warranty is damage to a vehicle or component resulting from a cause other than a defect including poor maintenance, neglect, abuse, accident and collision, maintenance adjustments, unreasonable or unintended strain or use, improper installation of accessories (such as connecting any accessories to less than the full pack of batteries), installation of parts or accessories that are not original equipment including non-approved GPS systems, non-approved alteration and acts of God. Also excluded from any Royal EV warranty are all fuses, decals (except safety decals), lubricants, routine wear items such as the charger plug and receptacle, mats, pads, light bulbs, brake pads, brushes, bushings, drive buttons, cosmetic deterioration, and items that deteriorate, fade or fail due to exposure or ordinary wear and tear.

Without limiting the generality of the foregoing in any way, and as part of its limited warranty exclusion, Royal EV does not warrant that its vehicle or components such as batteries, computer, controller or electrical device are suitable for use in any application other than in its products. As in the use of any vehicle, batteries, computer, controller or electrical device, a prudent owner will read and study the owner's manual, the operator instructions and the warning labels; and will exercise due care in working on or around vehicles, batteries or electrical devices.

Transportation expenses for warranty services are also excluded from this warranty.

#### VOIDING OF WARRANTY

THIS AND ANY OTHER WARRANTY SHALL BE VOID IF THE VEHICLE OR COMPONENT IS ABUSED OR USED IN AN UNINTENDED MANNER OR SHOWS INDICATIONS THAT IT HAS BEEN ALTERED IN ANY WAY, INCLUDING, BUT NOT LIMITED TO, MODIFICATION OF THE SPEED GOVERNOR, BRAKING SYSTEM, STEERING, TRANSAXLE, OR OTHER OPERATING SYSTEMS OF THE CAR TO CAUSE IT TO PERFORM OUTSIDE Royal EV SPECIFICATIONS. THE WARRANTY IS LIKEWISE VOID IF THE VEHICLE SHOWS INDICATIONS THAT REASONABLE OR NECESSARY MAINTENANCE AS OUTLINED IN THE OWNER'S MANUAL AND MAINTENANCE AND SERVICE MANUAL WAS NOT PERFORMED AT THE TIME AND IN THE MANNER SPECIFIED IN SUCH MANUALS.

#### SOLE REMEDY

Royal EV's liability under this limited warranty or in any action whether based upon warranty, contract, negligence, strict product liability or otherwise, shall be the repair or replacement, at Royal EV's option, of the vehicle or component thereof that Royal EV deems to be defective. Replacement shall mean furnishing, during the applicable limited warranty period, a new vehicle or factoryreconditioned vehicle or component thereof that is identical or reasonably equivalent to the warranted product or component at no cost to the purchaser. Repair shall mean remedying a defect in the vehicle or component thereof at no cost to the purchaser during the applicable limited warranty period.

#### DISCLAIMER

THIS LIMITED WARRANTY IS EXCLUSIVE. Royal EV MAKES NO OTHER WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED. ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED BY Royal EV AND EXCLUDED FROM THIS WARRANTY. THE PURCHASER AND Royal EV EXPRESSLY AGREE THAT THE SOLE REMEDY OF THE REPLACEMENT OR REPAIR OF THE DEFECTIVE VEHICLE OR COMPONENT THEREOF IS THE SOLE REMEDY OF THE PURCHASER. Royal EV MAKES NO OTHER REPRESENTATION OR WARRANTY OF ANY KIND, AND NO REPRESENTATIVE, EMPLOYEE, OR DEALER OF Royal EV HAS THE AUTHORITY TO MAKE OR IMPLY ANY REPRESENTATION, PROMISE OR AGREEMENT, WHICH IN ANY WAY VARIES THE TERMS OF THIS WARRANTY.

In the event that another pre-printed warranty document, certificate or both offered by or through Royal EV at the time of sale of this vehicle (each an "Additional Warranty Document") is deemed to conflict with the limitations or exclusions contained herein, the limitations and exclusions contained herein shall continue to apply to both this limited warranty statement and, to the maximum extent permitted by law, to each Additional Warranty Document.

#### NO CONSEQUENTIAL DAMAGES

IN NO EVENT SHALL Royal EV BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES INCLUDING, BUT NOT LIMITED TO, LOSS RELATED TO PROPERTY OTHER THAN THE VEHICLE, LOSS OF USE, LOSS OF TIME, INCONVENIENCE, OR ANY OTHER ECONOMIC LOSS.

Some states allow neither limitation on the duration of an implied warranty nor exclusions or limitation of incidental or consequential damages. Therefore, the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

#### HOW TO MAKE A WARRANTY CLAIM

To make a warranty claim under this limited warranty, you must present the vehicle or defective component with evidence of proof of purchase date and number of amp hours (if applicable) to an authorized Royal EV dealer.

For warranty-related communication, contact Royal EV Warranty Services

#### WARNING

Any modification or change to the vehicle that affects the electrical system, stability or handling of the vehicle, or increases maximum vehicle speed beyond factory Specifications, could result in severe personal injury or death.

### **Royal EV WARRANTY STATEMENT**

YOUR WARRANTY RIGHTS AND OBLIGATIONS:

Where a warrant-able condition exists, as defined herein, Royal EV will repair your vehicle at no cost to you including diagnosis, parts and labor.

#### 1. VOIDING OF WARRANTY:

THIS AND ANY OTHER WARRANTY SHALL BE VOID IF THE VEHICLE IS ABUSED OR USED IN AN UNINTENDED MANNER OR SHOWS INDICATIONS THAT IT HAS BEEN ALTERED IN ANY WAY, INCLUDING, BUT NOT LIMITED TO, MODIFICATION OF THE SPEED GOVERNOR, BRAKING SYSTEM, STEERING, TRANSAXLE, OR OTHER OPERATING SYSTEMS OF THE VEHICLE TO CAUSE IT TO PERFORM OUTSIDE Royal EV SPECIFICATIONS.

#### 2. HOW TO MAKE A WARRANTY CLAIM:

To make a warranty claim under this limited warranty, you must present the vehicle or defective component to an authorized Royal EV dealer.



# Welcome to the Royal Family

### **Royal Electric Vehicles**

Calhoun, Ga 888-821-9446