

# EZRAIDER



*User Manual*

**nsraider** LTD

# *EZRaider User Manual*

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We at DSRaider would like to congratulate you on your purchase of the EZRaider, and welcome you to the growing community of EZRaider users. We want to thank you for your trust and wish you many years of safe, productive, and enjoyable use.

This user's manual contains important information on the operation and maintenance of the EZRaider. This manual is an inseparable part of the EZRaider and should be reviewed carefully before making use of the vehicle. Please follow all of the instructions carefully to ensure your riding safety and enjoyment.

The information presented here is rich and detailed, but in the event of an error or omission, please contact our customer service department at: [info@ezraider.com](mailto:info@ezraider.com).

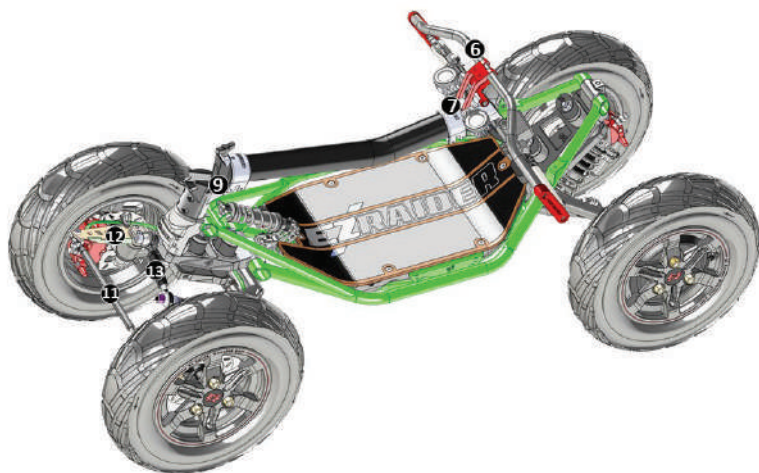
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## EZRaider - General Introduction

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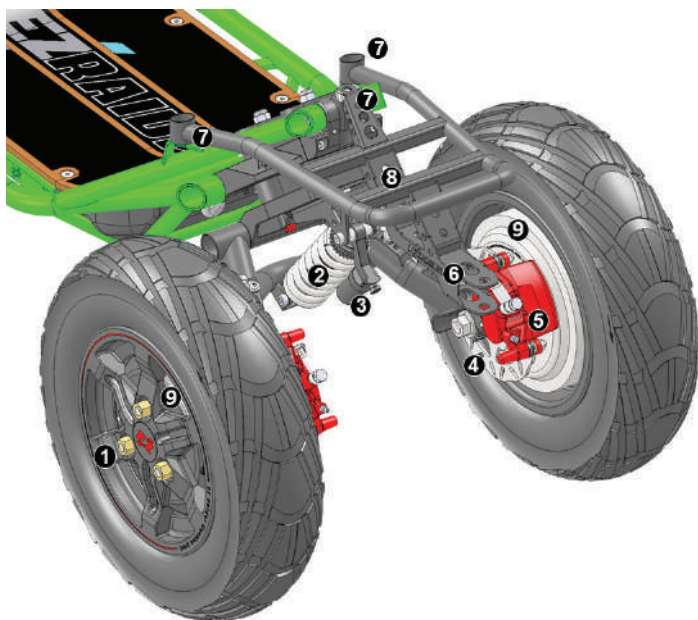
# ***EZRaider - General Introduction***

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- 1.** Throttle
- 2.** Power on/off switch
- 3.** Controls
- 4.** Front brake lever and parking brake
- 5.** Rear brake lever and parking brake
- 6.** Handguard (optional)
- 7.** Headlight switch
- 8.** Steering column
- 9.** Steering column folding mechanism
- 10.** Brake (found in each wheel)
- 11.** Long hex bar
- 12.** Steering shaft
- 13.** Short hex bar
- 14.** Front rubber shock absorbers
- 15.** Rear rubber shock absorbers
- 16.** Front oil shock absorbers + spring
- 17.** Rear oil/gas shock absorbers + spring
- 18.** Standing platform and battery compartment
- 19.** Chassis
- 20.** Wheel rim
- 21.** Wheel bolt covers
- 22.** 120/90-10 Tires

## Vehicle Rear End

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1. Wheel bolts
  2. Rear oil/gas shock absorbers + spring
  3. Shock adjustment point
  4. Disk brakes
  5. Brakes Caliper
  6. Towing point
  7. Connections points
  8. Luggage carrier - optional
  9. Hub Motor

## Vehicle Underside

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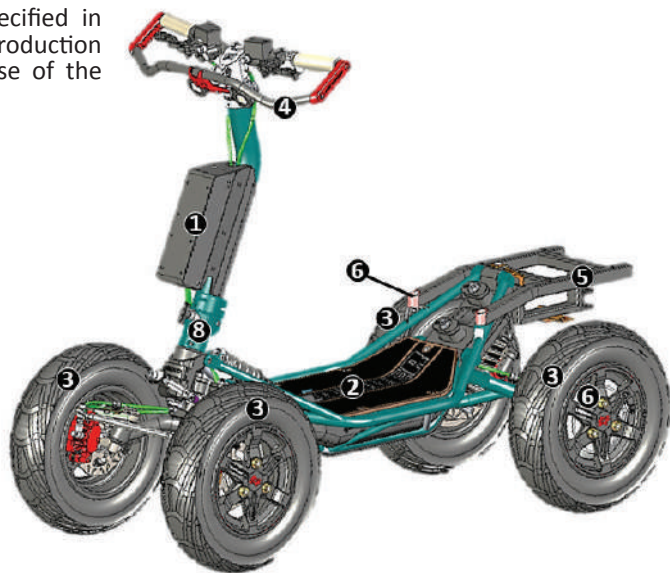
1. Long hex bar
2. Skid Plate - Underbody protector (optional)
3. Rear spring adjustment point – lower bolt
4. Rear spring adjustment point – upper bolt
5. Main motor connection nut
6. Brake Caliper
7. Disk brakes
8. Hub Motor
9. Towing point



## EZRaider HD2 - General Introduction

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\*\* Features not specified in this EZRaider HD2 introduction are identical to those of the EZRaider.





## ***EZRaider HD2 - General Introduction***

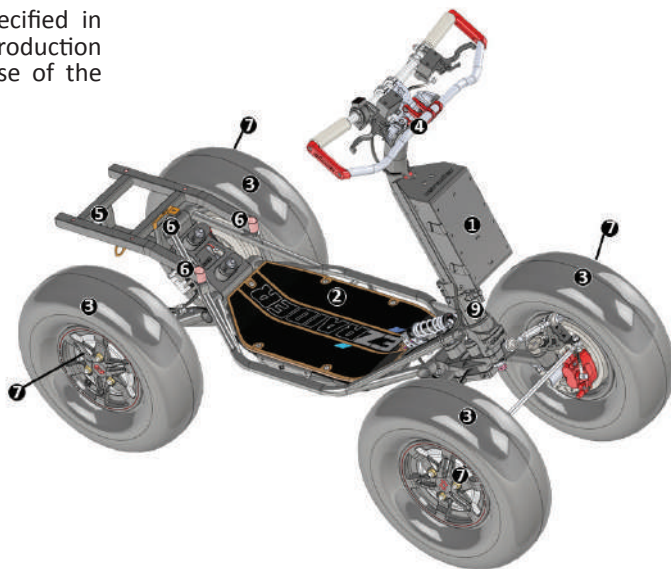
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1. Control box – containing motors controllers
2. Standing platform and battery compartment
3. 20-6-10 All-Terrain Vehicle tires
4. Handguard (optional)
5. HD Luggage carrier – optional
6. Hub Motor
7. Rear oil/gas shock absorbers + spring
8. Steering column folding mechanism
9. Skid Plate - Underbody protector (optional)

## EZRaider HD4 - General Introduction

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\*\* Features not specified in this EZRaider HD4 introduction are identical to those of the EZRaider.

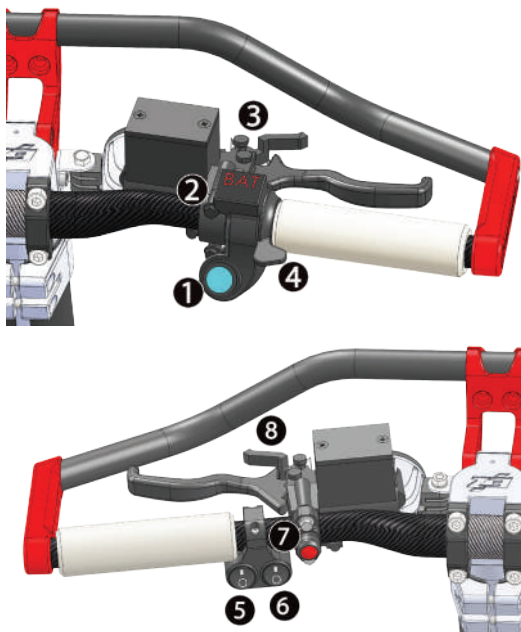


## ***EZRaider HD4 - General Introduction***

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- 1.** Control box – containing four controls, one for each motor
- 2.** Standing platform and battery compartment
- 3.** 22-7-10 All-Terrain Vehicle tires
- 4.** Handguard (optional)
- 5.** HD Luggage carrier – optional
- 6.** Connection point with the EZRaider luggage carrier
- 7.** Hub Motors
- 8.** Rear oil/gas shock absorbers + spring
- 9.** Steering column folding mechanism
- 10.** Skid plate - Underbody protector (optional)

## Switches and Controls



1. Power on/off key switch
2. Battery voltage indicator. Provides a continuous indication of battery voltage. The voltage indication varies between 65V for a full battery, to 50V point the battery saving mode is enabled, and the EZRaider is powered down. by switch OFF and ON the power will returns, in this stage user required to drive carefully to charging point, otherwise the battery will switch to “save mode” and in order to turn ON in this case the user needs to charge the vehicle.
3. Front parking brake lever
4. Throttle
5. Driving mode selector (1: Reduced power, 0: Normal, 2: Maximum power).
6. Light switch (0: Off, 1: On)
7. Reverse gear switch
8. Rear parking brake lever

### **WARNING !**

**EZRaiders is equipped with an electrical drivetrain operating at 60 volts. Handling, disassembly, and maintenance of the EZRaider's drivetrain and electrical components by unqualified personnel is strictly prohibited. In the event of a malfunction of or damage to the drivetrain or electrical components, contact an authorized service center.**

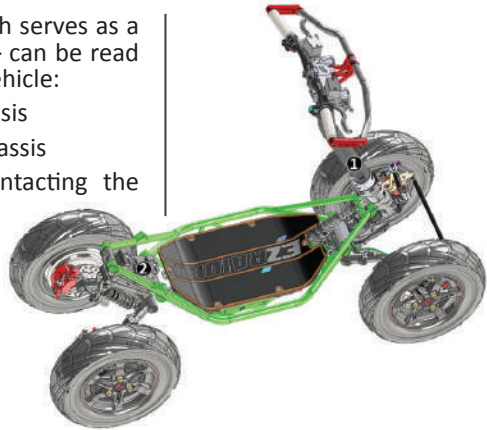
# Identifying the EZRaider

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The EZRaider chassis number – which serves as a unique ID number for your vehicle – can be read from a number of locations on the vehicle:

- A sticker on the front of the chassis
- Engraved on the frame of the chassis

Always use this number when contacting the customer service department.



## Driving Safety Instructions

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1. Read this User's Manual thoroughly, including its safety instructions and warnings, before operating the EZRaider.
2. The EZRaider operator must be fit for driving. Driving the EZRaider is prohibited when under the influence of alcohol, drugs, or any other substance that inhibits the operator's level of awareness.
3. In order to ensure the operator's safety, the following protective equipment should be used: Protective helmet, protective glasses, riding gloves, elbow guards and knee pads.
4. Use of the EZRaider is restricted to persons aged 16 and up, and is subject to all relevant national and local regulations.
5. The operator should not suffer from restrictions in hand and finger movements, and should be able to stand in a stable manner.
6. Ensure that the handlebar-folding mechanism is locked and does not enable freedom of movement.
7. Check the planned route in advance to ensure that it is suited for use of the EZRaider.
8. Obey all rules, regulations, and road signs that apply to driving the EZRaider and to the travel route.
9. Driving speed must conform to terrain conditions.
10. Avoid collisions with objects or other vehicles.
11. While driving downhill the operator should slow the vehicle speed using regenerative braking and the brake lever.
12. Keep all parts of the body on the EZRaider while driving. Do not dismount the EZRaider, or step one leg off the vehicle while it is in motion. The EZRaider should be dismounted only after it has reached a complete stop, the driver has applied the parking brake and has switched the power on/off switch to OFF.

# Pre-ride Inspection

A daily inspection prior to using the EZRaider will contribute to its proper functionality and driving safety.

## WARNING !

**If a malfunction or suspicion of failure has been identified, the EZRaider should not be used until it has been repaired at an authorized service center.**

1. General inspection. A visual inspection of the EZRaider, in order to identify a malfunction or potential point of failure.
2. Stickers. All the warning stickers should be intact and readable.
3. Screws and nuts. Check all the visible screws and nuts. If you discover loose screws, contact an authorized service center.
4. Silicon spray. Before any drive, verify the front I-Joints move freely, otherwise needs to spray with silicon grease.
5. Switches and controls. Check that the switches and controls are functioning properly. Check the proper operation of the throttle, brake handle and parking brake. Check the proper function of the handlebar, turning the vehicle in both directions.
6. Cables and wiring. Check that the electrical wiring and control and brake cables are intact.
7. Steering. Make sure that the steering column is locked in an open state and that the folding lock mechanism is properly tightened.
8. Brakes. Check the soundness and functionality of the brakes. Make sure there is no leakage of hydraulic fluid from the braking system.
9. Standing platform. Check the integrity of the standing platform. Check that the anti-slip coating is properly bonded to the platform.
10. Chassis and suspension. Check integrity of the EZRaider chassis and the suspension components. Make sure there are no cracks or significant damage. Check the integrity of the suspension rubber supports.
11. Electrical system. Check that the headlights are undamaged and functioning properly. Check the functioning of the battery storage compartment and charge port. Check that the electrical wiring and control cables are intact, and that their shielding is not torn, frayed, or missing. Check that the electrical connectors are in proper working order.
12. Tires and wheels. Check that the tires are undamaged and that the air pressure conforms to the specifications in the table below.

| Air Pressure Recommendations   | EZRaider | EZRaider HD2 | EZRaider HD4 |
|--|----------|--------------|--------------|
| Driving on paved roads   | 8 PSI    | 6 PSI        | 6 PSI        |
| Driving over rough terrain   | 5 PSI    | 4 PSI        | 4 PSI        |
| Minimal air pressure   | 4 PSI    | 3 PSI        | 3 PSI        |
| Air pressure during storage  | 15 PSI   | 15 PSI       | 15 PSI       |
| Use of the vehicle over rough terrain at low air pressure levels requires the injection of a puncture-prevention substance inside the tires.<br>Note that driving on tires with low air pressure raises energy consumption levels. |          |              |              |

## Driving

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1. Before use, make sure that the EZRaider is positioned on level ground, that the parking brake is engaged, and that there are no objects, animals or people in the vicinity of the vehicle that may be damaged or injured due to operation of the vehicle.
2. Grasp the EZRaider's handlebar with both hands and stand on the standing platform, keeping your legs straight.
3. Turn the power on/off switch to ON.
4. Check the battery voltage indicator to make sure that the battery voltage is correct.
5. Select the desired driving mode using the driving mode selector. It is **recommended to begin driving in mode 1 – reduced power mode**. Use of this mode is the safest and provides the optimum operating range.
6. Gently rotate the throttle using your right thumb, start driving, and steer the EZRaider using the handlebar. Pull the right side of the handlebar toward your body in order to turn right. Pull the left side of the handlebar lever toward your body in order to turn left.
7. Braking: Releasing the throttle while in motion engages the regenerative braking function, which slows the EZRaider while charging the drivetrain battery. In order to come to a complete stop, pull the brake levers.
8. To stop the EZRaider while going uphill, release the throttle and pull and hold the brake lever at that position. **Do not stop by applying constant pressure on the throttle!**
9. In order to drive in reverse, stand in place and press the reverse switch while rotating the throttle.

### **WARNING !**

**Driving in reverse is dangerous! Driving in reverse should be performed over minimal distances, at very slow speeds, and while paying attention to traffic safety!**

10. If the handlebar-folding mechanism was used, make sure to tighten the mechanism after the first 500 meters of the ride.
11. Following use, make sure that the EZRaider is positioned on level ground. Lock the parking brake, turn the power on/off switch should be turned to OFF, and dismount the standing platform carefully.



## **WARNINGS !**

1. While driving, hold the handlebar with both hands. Do not drive with only one hand on the handlebar!
2. Drive carefully when starting the drive from standstill. The throttle lever should be operated gently!
3. Releasing the brake when the throttle is engaged may cause you to lose control of the vehicle.
4. The handlebar rotation speed should be in a reverse ratio to the driving speed. While driving fast in a straight line, the handlebar should be turned very gently. Fast rotation of the handlebar in these conditions can result in a loss of control and cause the vehicle to roll over!
5. Do not drive the vehicle in water deeper than 15 centimeters (6 inches). Driving in water deeper than 15 centimeters (6 inches) will expose the electrical system to water and cause irreparable damage to the vehicle.
6. In wet and muddy conditions, the braking system performance is impaired. When a decrease in braking performance is felt, the brake lever should be used a few times to dry the brakes. Avoid driving at high speeds.
7. Mud on the standing platform may cause the operator to slip and lose control. Do not drive when the standing platform is covered in mud!
8. Be careful not to rotate the throttle if a motor is not turning due to overloading of the vehicle. In such a scenario, release the throttle immediately, reduce the load on the motor, and only then, resume driving. Failure to observe these instructions will cause irreparable damage to the vehicle.

**IMPORTANT** It is highly recommended to wear a helmet and other protective devices when riding the vehicle.

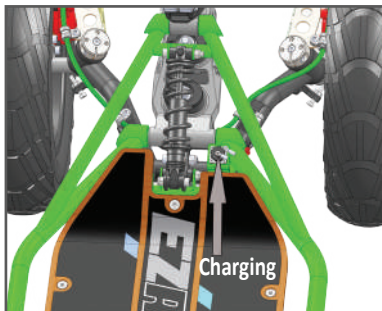


# Charging the Battery

## IMPORTANT

Make sure to fully charge the battery before your first drive.

1. Make sure the parking brake is engaged.
2. Make sure the power on/off switch is OFF.
3. Open the charging port cover.
4. Insert the charging plug into the charging socket located in the front right corner of the EZRaider standing platform.
5. Connect the charger supply cable to a proper electrical socket.
6. A red LED confirms the battery is charging, a green LED indicates the battery is full. (It's recommended to leave the charger connected for an hour after the battery fully charged)
7. After finishing the charging process, disconnect the charger from the electrical socket, and afterwards, disconnect the charging plug from the EZRaider.
8. Close the charge port cover.



## WARNINGS !

1. Do not stand on the standing platform while charging.
2. The charger is intended for use with EZRaider batteries supplied by DSRaider only. Do not use batteries and chargers that are not supplied by DSRaider.
3. The charger should be located in a dry, well-ventilated area.
4. The charger is enclosed in an aluminum box, which helps dissipate excess heat. To prevent overheating, do not cover the charger while charging.
5. Use the charger supplied by DSRaider only.
6. Do not disassemble the charger. When repair or service is required, contact an authorized service center.
7. More information on charging can be found in the user manual that is supplied with the charger.

## Towing

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The EZRaider is optionally supplied with the **EZRaider Cart**, which is used for towing.

### IMPORTANT

Only towing accessories from DSRaider may be used with the EZRaider. Do not attempt to attach any cart to the vehicle other than the EZRaider Cart.

See the chapter, EZRaider Cart, for a complete guide to the use of the cart.

### WARNINGS !

1. Use towing accessories from DSRaider only.
2. When towing, do not exceed the maximum load weight as specified in the chapter, EZRaider Cart.
3. When towing, drive slowly and carefully.
4. Drive carefully when towing downhill. If driving speed increases, releasing the throttle to engage the regenerative braking function, which slows the EZRaider while charging the drivetrain battery. If driving speed continues to increase, pull the brake levers in order to slow the vehicle.

## Transport

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1. When the handlebar is folded, make sure that the switches and controls are protected from damage.
2. If the EZRaider is being transported in rainy weather conditions, make sure that the EZRaider is protected from the rain.
3. After transporting the EZRaider with its handlebar folded, press several times on the brake handles in order to release air from the braking system.
4. When operating the vehicle after transport, tighten the handlebar-folding mechanism.

## Storage

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1. Make sure the EZRaider is stored in a dry, well-ventilated place.
2. The vehicle's battery should be charged before storage.
3. When storing the vehicle for an extended period of time, the battery should be charged once every 6 months.
4. The vehicle's tires should be inflated to maximum pressure in accordance with the air-pressure table in the section, Pre-ride Inspection.

## Cleaning

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1. Turn the power on/off switch to OFF.
2. Remove dust, dirt and mud using a gentle dry brush.
3. Use a soft cloth, or a slightly damp sponge to clean the EZRaider.
4. Wipe the EZRaider with a soft, wet cloth, dipped in clean water.
5. Dry the EZRaider using a soft, dry cloth.

### NOTE



**Water pressure streams can be used to clean heavy dirt from the EZRaider.**

- \* The nozzle of the water hose should be at least 1.5 meters from the vehicle
- \* The water pressure used should be 150 bar or less.
- \* Avoid streaming water on the electrical cables and connection, and on the switches and controls on the handlebars.

### WARNINGS !



1. Do not allow water to come in contact with the EZRaider motor, as this will lead to cancellation of the warranty!
2. Use water only to clean the vehicle. Cleaning detergents and chemicals may cause corrosion and color change.

## Maintenance

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Routine maintenance is required in order to maintain EZRaider's safety and proper function. Follow the manufacturer-approved maintenance program, detailed in the table below, to achieve maximum performance and product lifetime.

### WARNINGS !



1. All maintenance work should be performed while the power on/off switch is in the OFF position.
2. All maintenance work should be performed while the EZRaider is hoisted on a jack or lift, and the vehicle's wheels are not in contact with the ground.
3. All maintenance work, other than the procedures specified in the table below, must be performed at an authorized service center.
4. If malfunctions are found during the maintenance work, they must be repaired at an authorized service center.

# Maintenance

|                               |   | Contact authorized service center |     |     |     |       |  |
|-------------------------------|---|-----------------------------------|-----|-----|-----|-------|--|
|                               | Hours   | 10                                | 100 | 300 | 500 | 1,000 |  |
| Motor                         | Check - Disc to motor connection bolts lock                                   | V                                 | V   | V   | V   | V     |  |
|                               | Check - Motor shaft bolts lock  | V                                 | V   | V   | V   | V     |  |
| Steering bars                 | check - Long steering bar (linking rod) connection bolts                      | V                                 | V   | V   | V   | V     |  |
|                               | Check - long bar I-Joint freedom of movement in all directions                | V                                 | V   | V   | V   | V     |  |
|                               | Check - Short steering rod connection bolts                                   | V                                 | V   | V   | V   | V     |  |
|                               | Check - short bar I-joint freedom of movement in all direction                | V                                 | V   | V   | V   | V     |  |
| Braking System                | Check - Arm clipper connection  | V                                 | V   | V   | V   | V     |  |
|                               | Check - Braking fluid level in the oil reservoir                              | V                                 | V   | V   | V   | V     |  |
|                               | check - Braking system pipes connections                                      | V                                 | V   | V   | V   | V     |  |
| Front shock Absorber assembly | Check - Chassis to shock absorber bolt connections                            | V                                 | V   | V   | V   | V     |  |
|                               | Check - shock absorber sleeve connection                                      | V                                 | V   | V   | V   | V     |  |
|                               | Check - for freedom in I-joint rod  | V                                 | V   | V   | V   | V     |  |
|                               | Check - Front shock absorber connection bolt to front suspension assembly     | V                                 | V   | V   | V   | V     |  |
| Central Steering Arm          | Check - Central steering arm bolt connection                                  | V                                 | V   | V   | V   | V     |  |
|                               | Check - Arm clamp closing bolt clamp  | V                                 | V   | V   | V   | V     |  |
|                               | Replace - central steering axle **  |                                   |     |     |     | V     |  |
| Right and Left Steering Arms  | Check - Right and left arm clamp bolt connection.                             | V                                 | V   | V   | V   | V     |  |
|                               | Check - Centralize bolt clamp   | V                                 | V   | V   | V   | V     |  |
| Front Arm                     | Check - connection bolts between front suspension assembly and front arm      | V                                 | V   | V   | V   | V     |  |
|                               | Check - sleeves at the arm connection to the suspension base                  | V                                 | V   | V   | V   | V     |  |
| Rear Arm                      | Check - connection bolt closing between brake and chassis                     | V                                 | V   | V   | V   | V     |  |
|                               | Check - connection bolt closing between rear arm and rear suspension assembly | V                                 | V   | V   | V   | V     |  |
|                               | Check - sleeves at the connection of the arm to the suspension base           | V                                 | V   | V   | V   | V     |  |
| Front Suspension Base         | check - upper suspension base bolt lock                                       | V                                 | V   | V   | V   | V     |  |
|                               | Check - Steering axle bearing freedom of movement *                           |                                   | V   | V   | V   | V     |  |
|                               | Check - Upper rubber  | V                                 | V   | V   | V   | V     |  |
|                               | Check - Lower rubber  | V                                 | V   | V   | V   | V     |  |
|                               | Check - Suspension nut lock   | V                                 | V   | V   | V   | V     |  |
| Rear Suspension Base          | Check - Lower rear base closing bolt lock                                     | V                                 | V   | V   | V   | V     |  |
|                               | Check - Upper rubber  | V                                 | V   | V   | V   | V     |  |
|                               | Check - Lower rubber  | V                                 | V   | V   | V   | V     |  |
|                               | Check - Suspension closing nut lock   | V                                 | V   | V   | V   | V     |  |
| Axle Arm Assembly             | Check - safety pin, and Check nut closing between axle arm and wheel bearing  | V                                 | V   | V   | V   | V     |  |
|                               | Check - Bearing freedom of movement   | V                                 | V   | V   | V   | V     |  |
| Chassis                       | Check - bolt connecting the chassis to the rear suspension array              | V                                 | V   | V   | V   | V     |  |
|                               | Check - bolt connecting the chassis to the front suspension array             | V                                 | V   | V   | V   | V     |  |
|                               | Check -braking tubes clamp close and motor cables clamp close                 | V                                 | V   | V   | V   | V     |  |
| Handlebars                    | Check - Handlebars clamp bolt lock  | V                                 | V   | V   | V   | V     |  |
|                               | Check - Handlebars closing bolt lock  | V                                 | V   | V   | V   | V     |  |
| Standing Board                | Check - standing board closing bolt   | V                                 | V   | V   | V   | V     |  |
| Wheel Bearing                 | Check - Wheel bearing disk closing bolt lock                                  | V                                 | V   | V   | V   | V     |  |
| Folding Mechanism             | Check - Wingnut locking nut lock  | V                                 | V   | V   | V   | V     |  |
|                               | Check - Axle bolt lock  | V                                 | V   | V   | V   | V     |  |
|                               | Check - Folding mechanism bolt lock   | V                                 | V   | V   | V   | V     |  |
| Charging Socket               | Check - Charging socket closing bolt  | V                                 | V   | V   | V   | V     |  |
| Wheels                        | Check - Wheels bolt lock  | V                                 | V   | V   | V   | V     |  |
| Controllers                   | Visual inspection - mounting, connections and cleanliness                     | V                                 | V   | V   | V   | V     |  |
|                               | Check - wiring integrity, lack of wear and tear                               | V                                 | V   | V   | V   | V     |  |
| Battery                       | Visual inspection - mounting, connection, battery cleanliness,                | V                                 | V   | V   | V   | V     |  |
|                               | Visual inspection - Battery envelope integrity check                          | V                                 | V   | V   | V   | V     |  |
|                               | change - Battery replacement  | As needed                         |     |     |     |       |  |

\* Visual inspection of any replacement of the central steering axle

\*\* In accordance with the manufacturer's instruction and in accordance with the assembly version

1. The maintenance table refers to a vehicle with a time gauge.
2. Time gauges shall be installed as part of the Company's policy on vehicles that have not yet had a time gauge installed and at an authorized service center.
3. A vehicle that has not yet had a time gauge installed on it must undergo treatment no later than 3 months and subject to Company policy and the warranty.
4. In the event of an accident, contact the nearest service center immediately for treatment as needed.
5. At the end of any day of operating in highly saline areas, apply silicon oil spray to the I-joint connectors.
6. After 100 hours of use, a key light will appear on the time gauge, which will indicate that you should go to a garage service center for periodic treatment. To cancel the light press X.

# Troubleshooting

The following table provides instructions for troubleshooting and repairing the EZRaider.

## IMPORTANT

In case of any malfunction or fault that does not appear in the table, or that impacts user safety, contact an authorized service center, or contact our customer service department at [info@ezraider.com](mailto:info@ezraider.com).

### WARNING !

- 1. Do not detach the standing platform. Platform detachment should be performed an authorized service center only!**
- 2. Do not disassemble the switches.**
- 3. Any action performed by the customer that is not specified in the table below will lead to cancellation of the warranty!**

| # | Problem  | Possible cause                                    | Repair   |
|---|--|---|--|
| 1 | EZRaider does not drive when throttle is rotated                 | Power on/off switch is set to OFF                 | Rotate the power on/off switch to ON.  |
|   |  | Battery is not charged                            | Charge battery.  |
|   |  | Parking brake is locked                           | Release parking brake lock.  |
| 2 | Choppy ride  | Battery depleted                                  | Charge battery.  |
| 3 | Performance decrease while driving under heavy load              | Controller / engine Overheating                   | Stop. Power down the EZRaider. Allow systems to cool down for 10 minutes.                                |
| 4 | Unstable ride  | Flat or leaky tire                                | Repair the tire.   |
|   |  | Incorrect tire pressure                           | Inflate the tire to the indicated air pressure.  |
| 5 | Parking lever is engaged but EZRaider does not stop              | Braking system malfunction                        | Contact the service center.<br><b>Do not use the vehicle!</b>  |
| 6 | EZRaider does not slow down as usual when releasing the throttle | Controller malfunction                            | Contact the service center.  |
|   |  | Throttle stuck in FULL mode                       | Grasp both brake levers firmly. Release the front brake lever and rotate the power on/off switch to OFF. |
| 7 | Brake noise during riding  | Foreign object caught between brake pad and rotor | Release the foreign object.  |
| 8 | EZRaider does not ride in reverse                                | Safety mechanism is active                        | Release the throttle, stop in place, and try again.  |
| 9 | Lights do not operate  | Switch malfunction                                | Turn lights off and back on again.   |
|   |  | Electrical system malfunction                     | Check integrity of wiring.   |

**In the event of a malfunction that prevents use of the vehicle or does not appear in the table, contact an authorized service center.**



# *EZRaider Cart User Manual*

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Congratulations on your purchase of the EZRaider Cart from DSRaider.

DSRaider offers two cart models that are attached to the EZRaider and are used for towing:

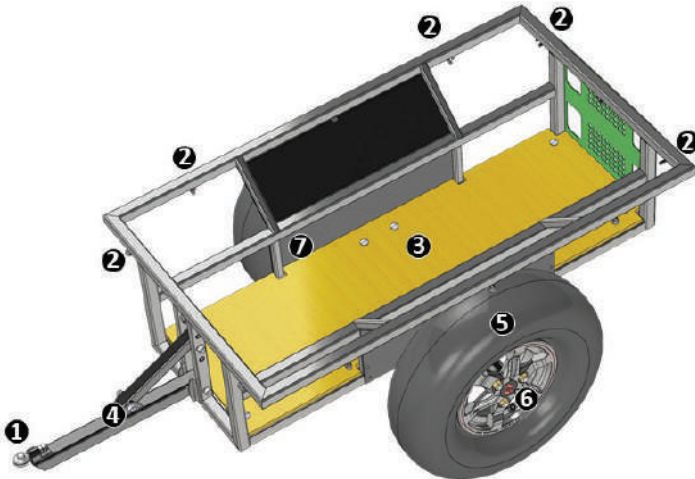
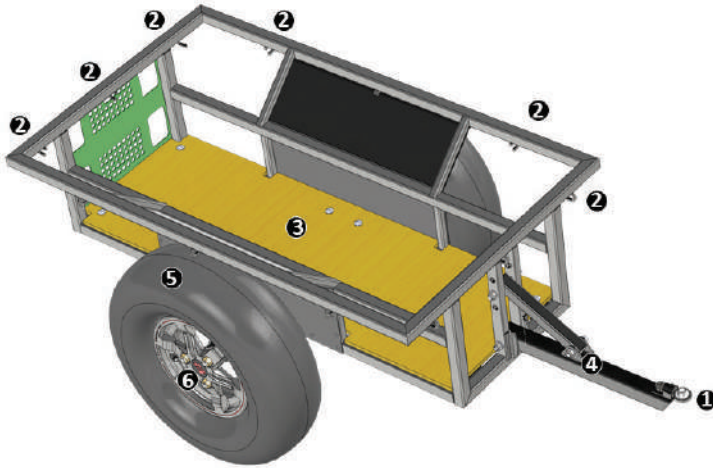
- **Cart.** Connects to the EZRaider and can tow loads of up to 150 kilograms.
- **E-Cart.** Features two integrated electric motors, a dedicated battery, and an exclusive control interface with the EZRaider. The E-Cart can tow loads of up to 250 kilograms.

## **NOTE**

The above mentioned load capacities are for optimal riding conditions. Capacities will be lower in accordance with field conditions.

## Cart - General Introduction

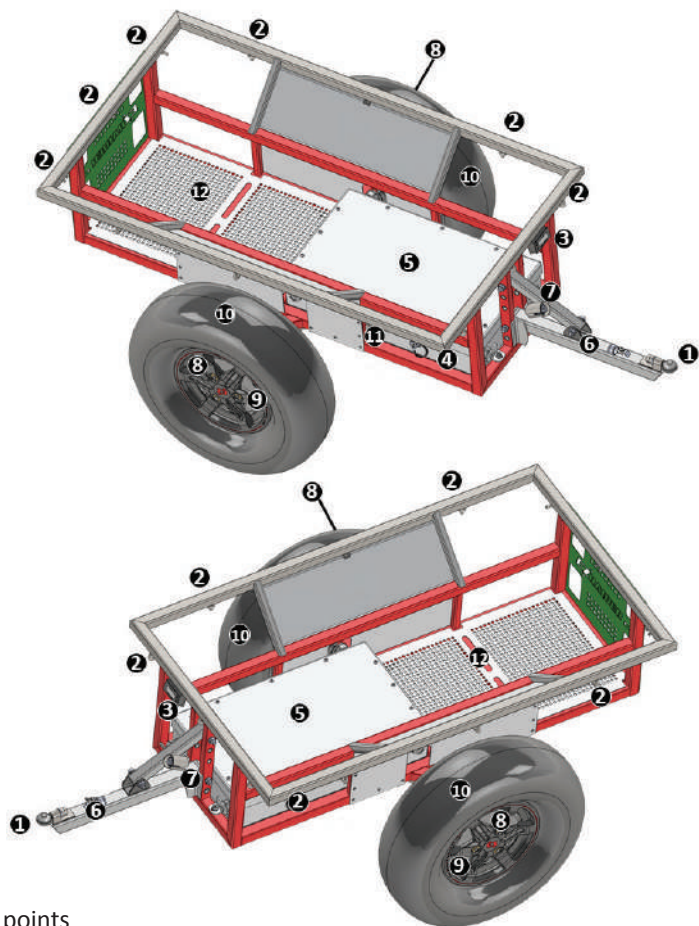
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1. Towing point
2. Payload tying points
3. Payload platform
4. Carriage shaft height adjustment point
5. 20-6-10 All-Terrain Vehicle tires
6. Wheel rim
7. Sticker with chassis number

## E-Cart - General Introduction

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1. Towing point
2. Payload tying points
3. Battery voltage indicator
4. Charging inlet
5. Battery and controller's compartment
6. Carriage shaft height adjustment point
7. Control cable anchoring point
8. Hub Motors
9. Wheel rim
10. 22x7-10 All-Terrain Vehicle tires
11. Sticker with chassis number
12. Payload platform

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## Battery voltage indicator

- The battery voltage indicator provides a continuous indication of battery voltage. The voltage indication varies between 66V for a full battery, to 52V, at which point the battery saving mode is enabled, and the EZRaider is powered down.

### **WARNING !**

The E-Cart is equipped with an electrical drivetrain operating at 60 volts. Handling, disassembly, and maintenance of the EZRaider's drivetrain and electrical components by unqualified personnel is strictly prohibited. In the event of a malfunction or damage to the drivetrain or electrical components, contact an authorized service center.

#### **IMPORTANT**

Any modifications to the cart structure will immediately void the product warranty.

## *Identifying the Cart*

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The Cart/E-Cart chassis number – which serves as an ID number for the cart – can be read from a sticker on the front of the chassis, on the right-hand side. Always use this number when contacting the customer service department.

# *Cart Use Safety Instructions*

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## **NOTE**

The following safety instructions are valid for all EZRaider Cart models.

- 1.** Read this User's Manual thoroughly, including its safety instructions and warnings, before operating the cart.
- 2.** Use of the cart is restricted to persons aged 16 and up.
- 3.** Before towing, make sure that the cart is functioning correctly and that there are no loose parts, cracks, or damage that will affect the performance of the cart.
- 4.** The materials towed in the cart should be securely fastened to the cart in order to ensure that they will not come loose when riding.
- 5.** Check the planned route in advance to ensure that it is suited for use of the EZRaider and Cart.
- 6.** The operator of the EZRaider and Cart must be fit for driving. Driving the EZRaider and Cart is prohibited when under the influence of alcohol, drugs, or any other substance which inhibits the operator's level of awareness.
- 7.** Do not use the cart at first to tow heavy loads over difficult terrain. Begin with an empty cart at low speeds on an easy terrain, then increase loads and speed incrementally as you gain experience in use of the cart.
- 8.** Obey all rules, regulations, and road signs that apply to driving the EZRaider and Cart.
- 9.** Driving speed must conform to terrain conditions.
- 10.** Avoid collisions with objects or other vehicles.
- 11.** Reduce driving speed when using the cart, and be alert regarding changing terrain conditions.
- 12.** While driving downhill the operator should slow the vehicle speed using regenerative braking and the brake lever.
- 13.** Keep all parts of the body on the EZRaider while driving. Do not dismount the EZRaider, or step one leg off the vehicle while it is in motion. The EZRaider should be dismounted only after it has reached a complete stop, the driver has applied the parking brake and has switched the power on/off switch to OFF.

# Pre-ride Inspection


A daily inspection prior to using the cart will contribute to its proper functionality and driving safety.

WARNING ! 

If a malfunction or suspicion of failure has been identified, the cart should not be used until it has been repaired at an authorized service center.

1. General check. A visual inspection of the cart, in order to identify a malfunction or potential point of failure.
2. Stickers. All the warning stickers should be intact and readable.
3. Screws and nuts. Check all the visible screws and nuts. Tighten loose screws as required.
4. Payload platform. Check that the payload platform is undamaged, and that the payload materials are securely fastened to the platform.
5. Chassis and rack. Check the soundness of the cart’s chassis and suspension components. Ensure that there are no cracks or significant damage.
6. Interfaces. Check the points of interface between the EZRaider and the cart. Make sure that the cart maneuvers freely and that the security pin is locked in place.
7. Tires and wheels. Check that the tires are undamaged and that the air pressure conforms to the specifications in the table below.

|   |        |
|---|--------|
| Driving on paved roads  | 6 PSI  |
| Driving over rough terrain  | 4 PSI  |
| Minimal air pressure  | 3 PSI  |
| (Maximal air pressure (for storage and transport  | 15 PSI |
| Use of the cart over rough terrain at low air pressure levels requires the injection of a puncture-prevention substance inside the tires.<br>Note that driving on tires with low air pressure raises energy consumption levels. |        |

WARNING ! 

Make sure that the cart is loaded correctly – the payload should be distributed as follows:

- \* 40% of the payload weight before the axle
- \* 60% of the payload weight after the axle
- \* between 5 and 50 kilograms at the towing point

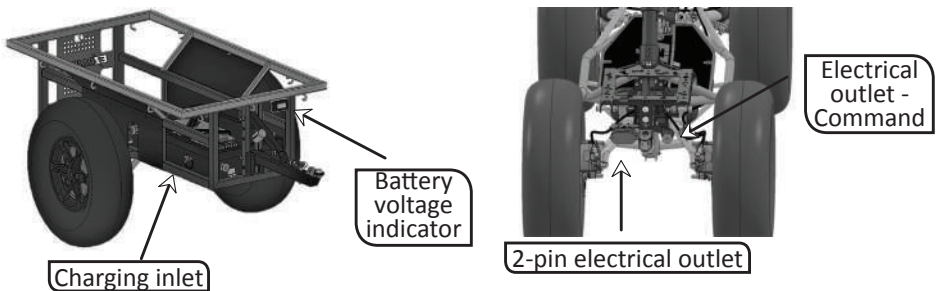
# E-Cart Inspection

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1. Cables and wiring. Check that the electrical wiring and control cables are intact, and that their shielding is not torn, frayed, or missing. Check the soundness of the electrical wiring and control cables that connect the EZRaider and the E-Cart as well.
2. Electrical system. Check the functioning of the battery storage compartment, high-voltage outlet, control outlet, and electrical connectors.

## To establish connectivity between the EZRaider and the E-Cart.

1. Make sure that the power on/off switch of the EZRaider is set to OFF.
2. Connect the power cable from the E-Cart to the EZRaider's 2-pin power connector.
3. Connect the control cable E-Cart to the EZRaider's control outlet.
4. Check that the cart's display is functioning correctly
5. Perform a short test ride with no payload in the cart.



## NOTE

**When connecting the E-Cart to the EZRaider, make sure that the voltage differential between the battery voltage of the E-Cart and the battery voltage of the EZRaider does not exceed 5 volts. A differential greater than 5 volts may cause damage to the batteries.**

## To disconnect the EZRaider and the E-Cart.

1. Make sure that the power on/off switch of the EZRaider is set to OFF.
2. Disconnect the E-Cart power cable from the EZRaider's 2-pin electrical power outlet.
3. Disconnect the E-Cart control cable from the EZRaider's control outlet.
4. Detach the E-Cart from the EZRaider.



## Driving the EZRaider with the Cart

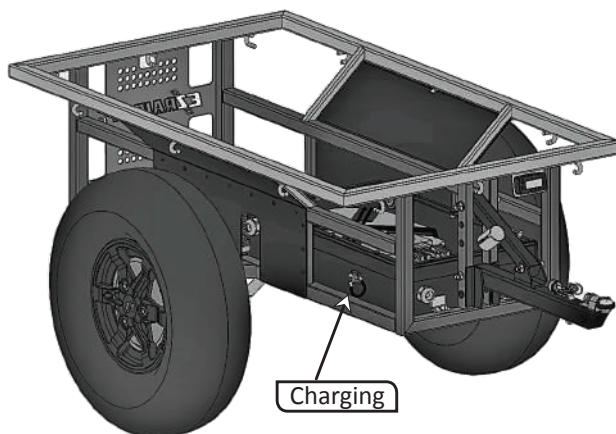
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1. Make sure that the cart's payload is properly tied to the cart, so that it will not come loose while driving.
2. When the cart is attached, reduce driving speed by at least 40%
3. When driving with the cart, begin by performing a test drive with an empty cart, and make sure the vehicle and cart are operating properly. Then perform a test while driving in reverse.
4. Note that the turn radius increases when driving with the cart. Plan your route accordingly.
5. Note that the cart is wider than the EZRaider. This should be taken into account when planning your route through narrow passages.
6. Note not to exceed the limitation angle (about 32 degrees) between the cart and the vehicle.

### WARNINGS !

- Drive carefully when starting the drive from standstill. The throttle lever should be operated gently!
- In wet and muddy conditions, the braking system performance is impaired. When a decrease in braking performance is felt, the brake lever should be used a few times to dry the brakes. Avoid driving at high speeds.
- Do not drive in water deeper than 15 centimeters (6 inches). Driving in water deeper than 15 centimeters (6 inches) will expose the electrical system to water and cause irreparable damage to the E-Cart.
- Be careful not to rotate the throttle if a motor is not turning due to overloading of the vehicle. In such a scenario, release the throttle immediately, reduce the load on the motor, and only then, resume driving. Failure to observe these instructions will cause irreparable damage to the E-Cart.

## Charging the E-Cart Battery



1. Make sure the E-Cart is parked on level ground.
2. Make sure the electric and control cables between the EZRaider and the E-Cart are disconnected.
3. Open the charging port cover.
4. Insert the charging plug into the charging socket located on the front of the E-Cart, on the left-hand side.
5. Connect the charger supply cable to a proper electrical socket.
6. A red LED confirms the battery is charging, a green LED indicates the battery is full. (It's recommended to leave the charger connected for an hour after the battery fully charged)
7. After finishing the charging process, disconnect the charger from the electrical socket, and afterwards, disconnect the charging plug from the E-Cart.
8. Close the charge port cover.

### WARNINGS !

- Do not load materials on the E-Cart during charging.
- The charger is intended for use with EZRaider batteries supplied by DSRaider only. Do not use batteries and chargers that are not supplied by DSRaider.
- The charger should be located in a dry, well-ventilated area.
- The charger is enclosed in an aluminum box, which helps dissipate excess heat. To prevent overheating, do not cover the charger while charging.
- Use the charger supplied by DSRaider only.
- Do not disassemble the charger. When repair or service is required, contact an authorized service center.
- More information on charging can be found in the user manual that is supplied with the charger.

## Towing

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### IMPORTANT

The cart should be towed exclusively by the EZRaider. Do not attempt to attach any cart to the vehicle other than the EZRaider.

#### **WARNINGS !**

- Use towing accessories from DSRaider only.
- When towing, drive slowly and carefully.
- Drive carefully when towing downhill. If driving speed increases, releasing the throttle to engage the regenerative braking function, which slows the EZRaider while charging the drivetrain battery. If driving speed continues to increase, pull the brake levers in order to slow the vehicle.

## Storage

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1. Make sure the cart is stored in a dry, well-ventilated place.
2. The cart's battery should be charged before storage.
3. When storing the cart for an extended period of time, the battery should be charged once every 6 months.
4. The cart's tires should be filled to maximum pressure (15 PSI).

## Cleaning

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1. Turn the power on/off switch to OFF.
2. Remove dust, dirt and mud using a gentle dry brush.
3. Use a soft cloth, or a slightly damp sponge to clean the cart.
4. Wipe the cart with a soft, wet cloth, dipped in clean water.
5. Dry the cart using a soft, dry cloth.

### NOTE

**Water pressure streams can be used to clean heavy dirt from the EZRaider.**

**\* The nozzle of the water hose should be at least 1.5 meters from the vehicle.**

**\* The water pressure used should be 150 bar or less.**

**\* Avoid streaming water on the electrical cables and connection, and on the switches and controls on the handlebars.**

### **WARNINGS !**

- Do not allow water to come in contact with the E-Cart's, as this will lead to cancellation of the warranty!
- Use water only to clean the vehicle. Cleaning detergents and chemicals may cause corrosion and color change.

# Maintenance

Routine maintenance is required in order to maintain the cart's safety and proper function. Follow the manufacturer-approved maintenance program, detailed in the table below, to achieve maximum performance and product lifetime.

## WARNINGS !

- All maintenance work should be performed while the cart is disconnected from the EZRaider.
- All maintenance work should be performed while the cart is hoisted on a jack or lift, and the vehicle's wheels are not in contact with the ground.
- All maintenance work, other than the procedures specified in the table below, must be performed at an authorized service center.
- If malfunctions are found during the maintenance work, they must be repaired at an authorized service center. Do not use the cart again until the malfunction has been repaired.

|                 |  | Contact authorized service center |     |     |     |       |
|-----------------|--|-----------------------------------|-----|-----|-----|-------|
|                 | Hours  | 10                                | 100 | 300 | 500 | 1,000 |
| Motor           | Check - for loose parts and bolts                              | V                                 | V   | V   | V   | V     |
|                 | Check - and tight Motor connection bolts                       | V                                 | V   | V   | V   | V     |
| Suspension      | Replace - Slip bearings in the suspensions                     |                                   |     |     |     | V     |
| Chassis         | Check - bolt connecting  | V                                 | V   | V   | V   | V     |
|                 | Check - battery compartment bolts closed                       | V                                 | V   | V   | V   | V     |
| Wheels          | Check - Wheels bolt lock                                       | V                                 | V   | V   | V   | V     |
| Charging Socket | Check - Charging socket closing bolt                           | V                                 | V   | V   | V   | V     |
| Controllers     | Visual inspection - mounting , connections and cleanliness     | V                                 | V   | V   | V   | V     |
|                 | Check - wiring integrity, lack of wear and tear                | V                                 | V   | V   | V   | V     |
| Battery         | Visual inspection - mounting, connection, battery cleanliness, | V                                 | V   | V   | V   | V     |
|                 | Visual inspection - Battery envelope integrity check           | V                                 | V   | V   | V   | V     |
|                 | change - Battery replacement                                   | As needed                         |     |     |     |       |

# Troubleshooting

The following table provides instructions for troubleshooting and repairing the EZRaider Cart.

## IMPORTANT

In case of any malfunction or fault that does not appear in the table, or that impacts user safety, contact an authorized service center, or contact our customer service department at [info@DSRaider.com](mailto:info@DSRaider.com).

### WARNINGS !

- **Do not attempt to disassemble the E-Cart's battery compartment. The compartments should be opened at an authorized service center only!**
- **Any action performed by the customer that is not specified in the table below will lead to cancellation of the warranty!**

| # | Problem  | Possible cause   | Repair  |
|---|--|--|---|
| 1 | E-Cart does not drive when throttle is rotated                 | Power on/off switch is set to OFF                                      | Rotate the power on/off switch to ON.                                   |
|   |  | Battery is not charged   | Charge battery.   |
|   |  | Parking brake is locked  | Release parking brake lock.   |
|   |  | Power cable is not connected to the EZRaider                           | Connect the power cable to the EZRaider.                                |
|   |  | Control cable is not connected to the EZRaider                         | Connect the control cable to the EZRaider.                              |
|   |  | The control cable shielding is torn, frayed, or missing                | Contact an authorized service center.                                   |
| 2 | Choppy ride  | Battery depleted   | Charge battery.   |
|   |  | The power cable or control cable shielding is torn, frayed, or missing | Contact an authorized service center.                                   |
| 3 | Performance decrease while driving under heavy load            | Controller / engine overheating  | Stop. Power down the E-Cart. Allow systems to cool down for 10 minutes. |
| 4 | Unstable ride  | Flat or leaky tire   | Repair the tire.  |
|   |  | Incorrect tire pressure  | Inflate the tire to the indicated air pressure.                         |
| 6 | E-Cart does not slow down as usual when releasing the throttle | Controller malfunction   | Contact the service center.   |
| 7 | Brake noise during riding                                      | Foreign object caught between brake pad and rotor                      | Release the foreign object.   |
| 8 | EZRaider does not ride in reverse                              | Safety mechanism is active   | Release the throttle, stop in place, and try again.                     |
|   |  | Control cable is not connected to the EZRaider                         | Connect the control cable to the EZRaider.                              |

**In the event of a malfunction that prevents use of the vehicle or does not appear in the table, contact an authorized service center.**

## Accessories

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Luggage carrier -  
EZRaider model



Underbody protector



Driver seat



## Accessories

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Luggage carrier - EZRaider  
HD2 and HD4 models



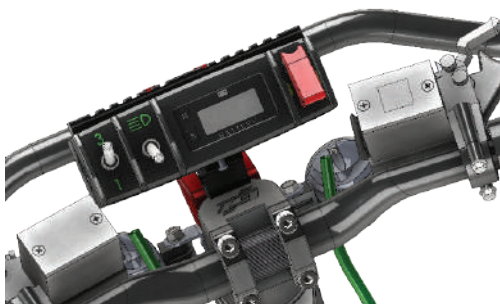
Hand guard – available for all  
models



Platform for second rider –  
attaches to luggage carrier

## Accessories

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Digital panel - Includes lighting switch and speed selector switch, Waterproof Fits all EZRaider models.



Soft mud guards - for maximum protection, Back and front , Fits for LW and HD2



Extra battery Doubles the travel range Fits the EZRaider LW





***dsraider*** LTD

10MRM001 Rev3 – EN