WARNING :

Read this Manual, and any Supplements Carefully Before Operating a Vehicle.

•Assembly
•Operation
•Maintenance

THIS VEHICLE IS NOT DESIGNED FOR USE ON RENTAL TRACKS OR RACING

POWERLAND

OWNER'S/OPERATOR'S MANUAL

1.0

ELECTRIC ATV/Tractor 4x4

⚠ WARNING

Read this manual carefully. It contains important safety information. This is an adult vehicle only.
Operation is prohibited for those under 16 years of age.

The original instructions for this vehicle are in English. Other languages are provided as translations of the original instructions.
Printed in India.

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1. INTRODUCTION

Congratulations! We welcome you to the Powerland family. Thank you for being a part of our efforts towards sustainable mobility. We take pride in offering you this product engineered and manufactured to the highest performance and quality standards. We are sure that you will enjoy superior levels of performance, reliability, riding comfort, and safety.

This manual is provided to help the owner and operators of this ATV/Tractor become familiar with the operating characteristics, and the many features offered on the ATV/Tractor. The manual also covers information on the care and maintenance of your ATV/Tractor.

Please read this manual carefully. The information contained in this Owner's Manual, the Warning Labels supplied with this product will help you to understand the safe use and maintenance of your ATV/Tractor. Make sure that you understand and follow all warnings and instructions in this material.

2. UNDERSTANDING WARNINGS

Never make any modifications to the motor, drive system, mechanical or electrical systems of your ATV/Tractor. Never install aftermarket parts or accessories intended to increase the speed or power of your ATV/Tractor.

Failure to follow these warnings increases the possibility of accidents leading to **DEATH** or **SERIOUS INJURY!**

Additionally, failure to follow these requirements will void the warranty on your ATV/Tractor.

NOTE

The addition and use of certain accessories including, (but not limited to) mowers, blades, sprayers, winches and windshields will change the handling characteristics and the performance of your ATV/Tractor.

Practice Responsible ATV/Tractor Driving

Make sure that you understand and follow all local, state/province, and federal/national riding laws and requirements.

Remember to respect your vehicle, respect the environment and respect the property of others. You are responsible for your safety and the safety of others around you when you ride!

AN ATV/TRACTOR CAN BE HAZARDOUS TO OPERATE.

An ATV/Tractor handles differently from other vehicles including motorcycles and cars. A collision or a rollover can occur quickly, even during routine maneuvers, such as turning and driving on hills or over obstacles, if you fail to take proper precautions.

SERIOUS INJURY OR DEATH can result if you do not follow these instructions.

- Read this manual and all labels carefully and follow the operating procedures described.
- Never operate or allow anyone else to operate an ATV/Tractor without proper instructions. Beginners should learn to operate with the help of an authorized representative from the company/dealer.
- Never allow anyone who does not have a driving license to operate

this ATV/Tractor.

- Never operate an ATV/Tractor without wearing an approved helmet that fits properly. You should also wear eye protection (goggles or face shield), gloves, boots, long-sleeved shirt or jacket, and long pants.
- Never consume alcohol or drugs before or while operating this ATV/Tractor.
- Never operate at excessive speeds. Always travel at a speed which is suitable for the terrain, visibility and operating conditions, and your experience.
- Never attempt wheelies, jumps or other stunts.
- Always inspect your ATV/Tractor each time you use it to make sure it is in safe operating condition. Always follow the inspection and maintenance procedures and schedules described in this manual.
- Always keep both hands on the handlebar and both feet on the footrests of the ATV/Tractor during operation.
- Always go slowly and be extra careful when operating on unfamiliar terrain. Always be alert to changing terrain conditions when operating the ATV/Tractor.
- Never operate on excessively rough, slippery or loose terrain.
- Always follow proper procedures for turning as described in this manual. Practice turning at low speeds before attempting to turn at faster speeds. Do not turn at excessive speed.
- Always have the ATV/Tractor checked by an authorized dealer if it has been involved in an accident.
- Never operate ATV/Tractor on hills that are too steep for the ATV/Tractor or for your abilities. Practice on smaller hills before attempting larger hills.
- Always follow proper procedures for climbing hills as described in this manual. Check the terrain carefully before you start up any hill. Never climb hills with excessively slippery or loose surfaces. Shift your weight forward. Never open throttle suddenly or make sudden gear changes. Never go over the top of any hill at high speed.
- Always follow proper procedures for going down hills and for braking on hills as described in this manual. Check the terrain carefully before you start down any hill. Shift your weight backward. Never go down a hill at high speed. Avoid going down a hill at an angle which would cause the vehicle to lean sharply to one side. Go straight down the hill where possible.

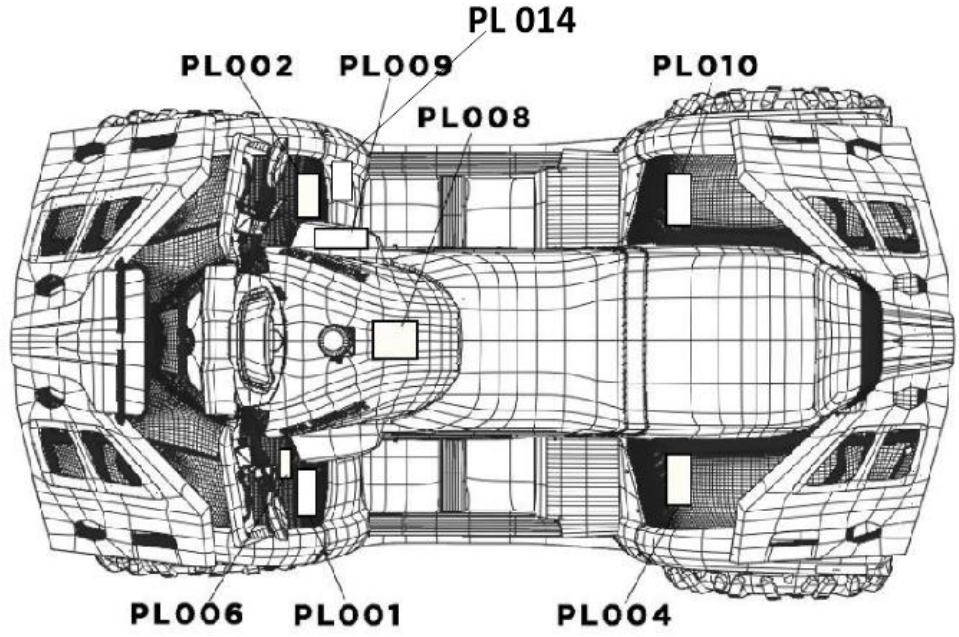
- Always follow proper procedures for crossing the side of a hill as described in this manual. Avoid hills with excessively slippery or loose surfaces. Shift your weight to the uphill side of the ATV/Tractor. Never attempt to turn the ATV/Tractor around on any hill until you have mastered the turning technique described in this manual on level ground. Avoid crossing the side of a steep hill if possible.
- Always use proper procedures if you stall or roll backwards when climbing a hill. To avoid stalling, maintain a steady speed when climbing a hill. If you stall or roll backwards, follow the special procedure for braking described in this manual. Dismount on the uphill side or to either side if pointed straight uphill. Turn the ATV/Tractor around and remount, following the procedure described in this manual.
- Always check for obstacles before operating in a new area. Never attempt to operate over large obstacles, such as large rocks or fallen trees. Always follow proper procedures when operating over obstacles as described in this manual.
- Always be careful of skidding or sliding. On slippery surfaces, such as ice, go slowly and be very cautious in order to reduce the chance of skidding or sliding out of control.
- Avoid operating the ATV/Tractor through deep or fast flowing water. Avoid water which exceeds the recommended maximum depth. Go slowly, balance your weight carefully avoiding sudden movements, maintain a slow and steady forward motion, do not make sudden turns or stops, and do not make sudden throttle changes.
- Wet brakes may have reduced stopping ability. Test your brakes after leaving water. If necessary apply them lightly several times to let friction dry out the pads.
- Always be sure there are no obstacles or people behind you when you operate in reverse. When it is safe to proceed in reverse, go slowly. Avoid turning at sharp angles in reverse.
- Always use the size and type tires specified in this manual. Always maintain proper tire pressure as described in this manual.
- Never modify an ATV/Tractor through improper installation or use of accessories
- Never exceed the stated load capacity for an ATV/Tractor. Cargo should be properly distributed and securely attached. Reduce speed and follow instructions in this manual for carrying cargo or pulling a trailer. Allow greater distance for braking.

ATTENTION:

This is an ADULT VEHICLE ONLY: Not a toy. READ AND UNDERSTAND WARNINGS AND OWNER'S MANUAL BEFORE OPERATING.

KNOW YOUR VEHICLE BEFORE YOU BEGIN RIDING!

Read this manual thoroughly referring to the various areas which are being discussed on your machine. Operating this vehicle carries with it responsibilities for your personal safety, the safety of others, and the protection of our environment.



WARNING

PL001

IMPROPER ATV USE CAN RESULT IN SEVERE INJURY OR DEATH

ALWAYS USE AN APPROVED HELMET & PROTECTIVE GEAR

NEVER CARRY MORE THAN ONE PASSENGER

NEVER USE WITH DRUGS OR ALCOHOL

THE-PASSENGER MUST ALWAYS:

- Use an approved helmet and protective gear.
- Securely grasp the hand holds and plant feet firmly on the footrests while seated in the passenger seat.
- Tell operator to slow down or stop if uncomfortable - get off and walk if conditions requires.

NEVER OPERATE:

- Without proper training or instruction.
- At speeds too fast for your skills or the conditions.

ALWAYS:

- Use proper riding techniques to avoid overturning the vehicle on steep climbs, rough terrain and sharp turns.

LOCATE AND READ OWNER'S MANUAL.
FOLLOW ALL INSTRUCTIONS AND WARNINGS.

WARNING

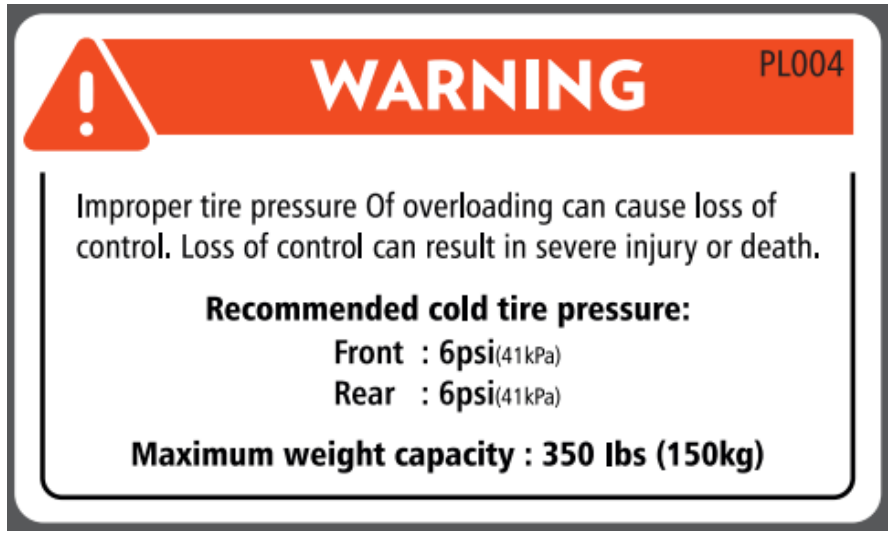
PL002

Never operate this vehicle on **Hills steeper than 15°** gradient. To prevent flip on a hilly terrain, use the throttle and brake gradually.

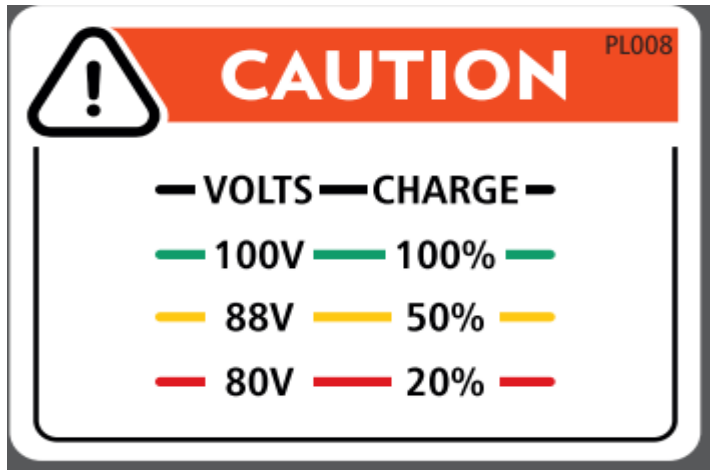
Operation of the ATV in reverse, even at low speeds can be dangerous. Steering and control of the ATV can become difficult.

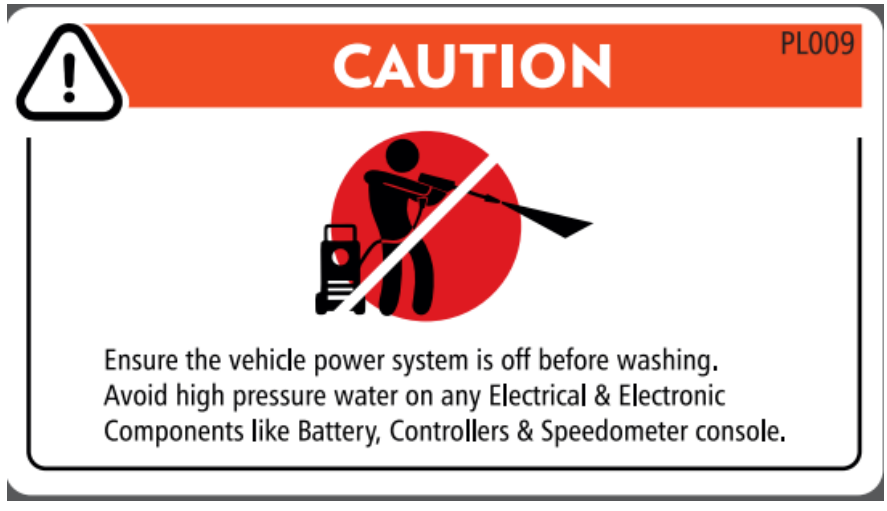
To prevent flip over, avoid sudden braking and sharp turns.

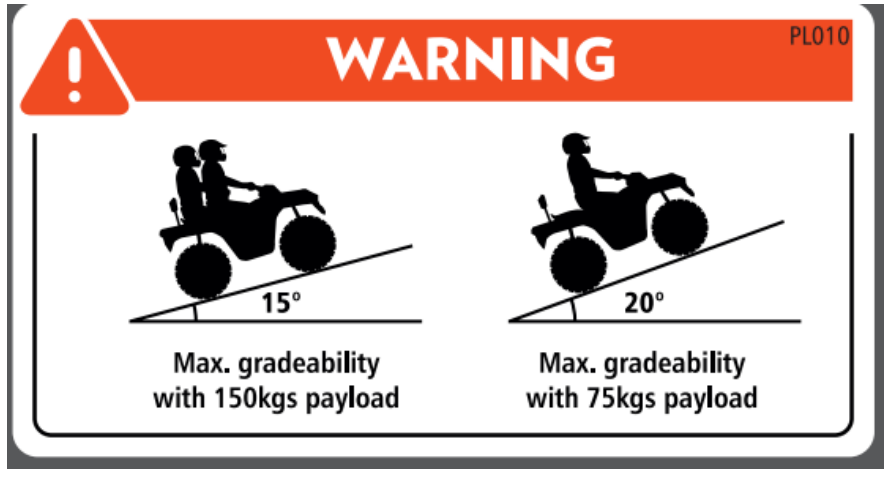

WARNING
PL003
DO NOT TOW FROM RACK OR BUMPER.
Vehicle damage or tip over may result in severe injury or death.
Tow only from the atv tow hooks or hitch.
Max. weight front rack 44lbs/20kg & Max. weight rear rack 44lbs/20kg.


WARNING
PL004
Improper tire pressure Of overloading can cause loss of control. Loss of control can result in severe injury or death.
Recommended cold tire pressure:
Front : 6psi(41kPa)
Rear : 6psi(41kPa)
Maximum weight capacity : 350 lbs (150kg)

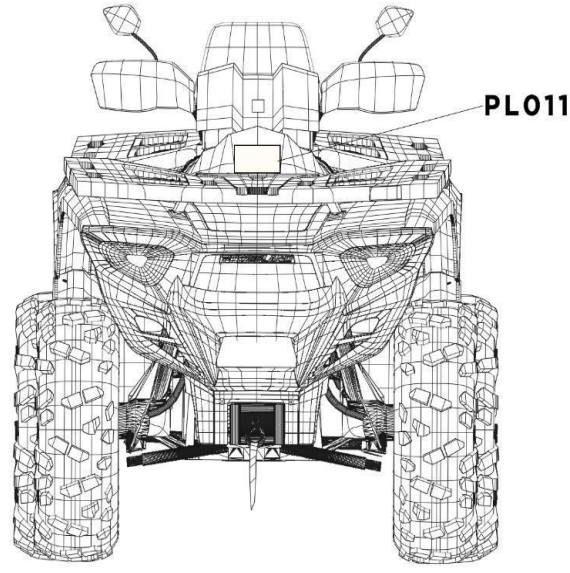

CAUTION
PL006
Do not plug in any heat - generating accessory such as an automobile cigarette lighter because it can damage the socket.

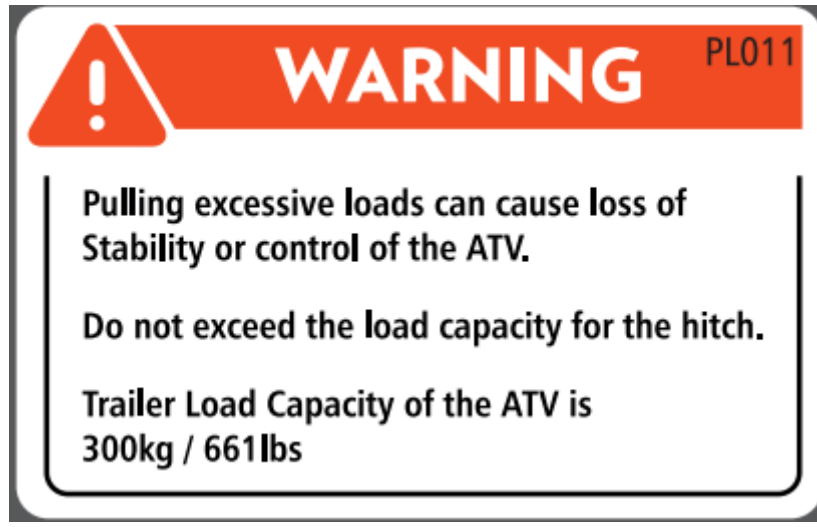

CAUTION
PL008
VOLTS
CHARGE
100V
100%
88V
50%
80V
20%

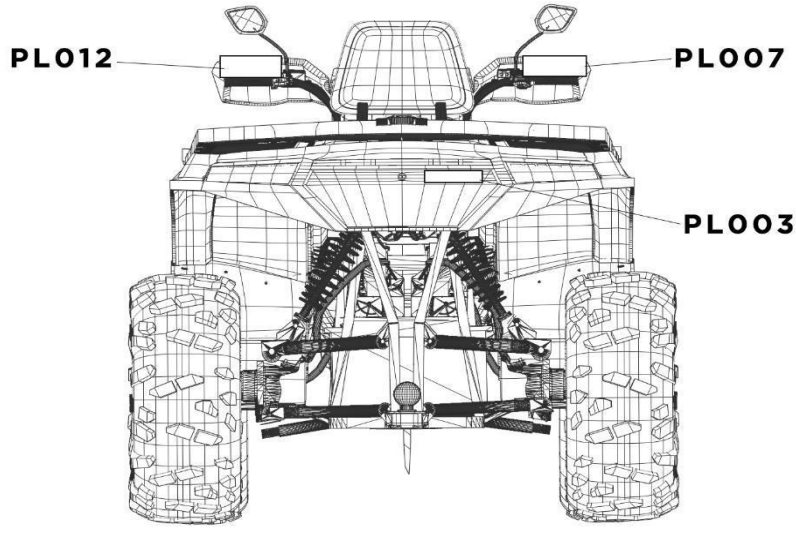

CAUTION
PL009
Ensure the vehicle power system is off before washing.
Avoid high pressure water on any Electrical & Electronic
Components like Battery, Controllers & Speedometer console.

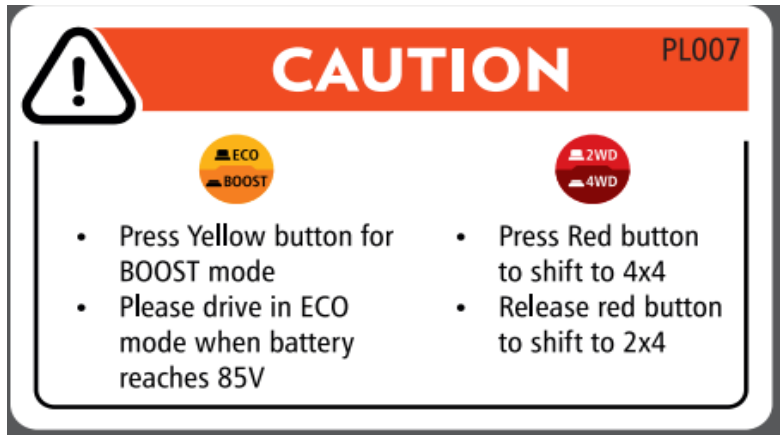

WARNING
PL010
15°
20°
Max. gradeability
with 150kgs payload
Max. gradeability
with 75kgs payload

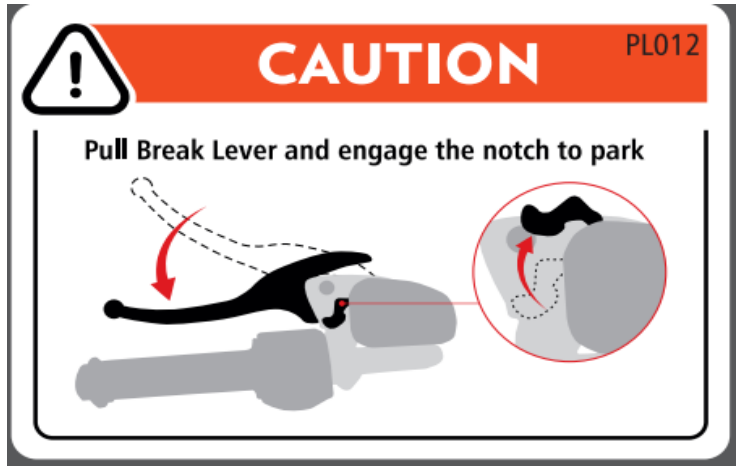
NOTE: Illustrations used in this manual are for general representation only. Your model may be different.



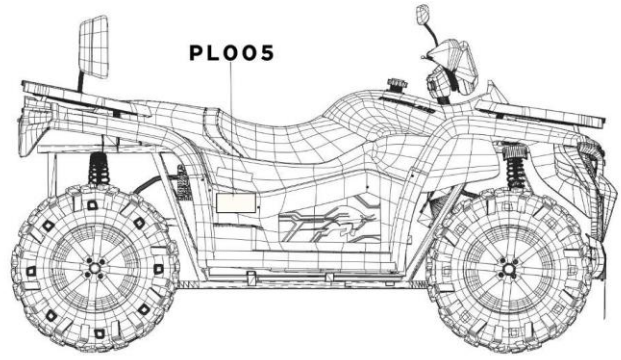

WARNING
PL011
Pulling excessive loads can cause loss of Stability or control of the ATV.
Do not exceed the load capacity for the hitch.
Trailer Load Capacity of the ATV is 300kg / 661lbs

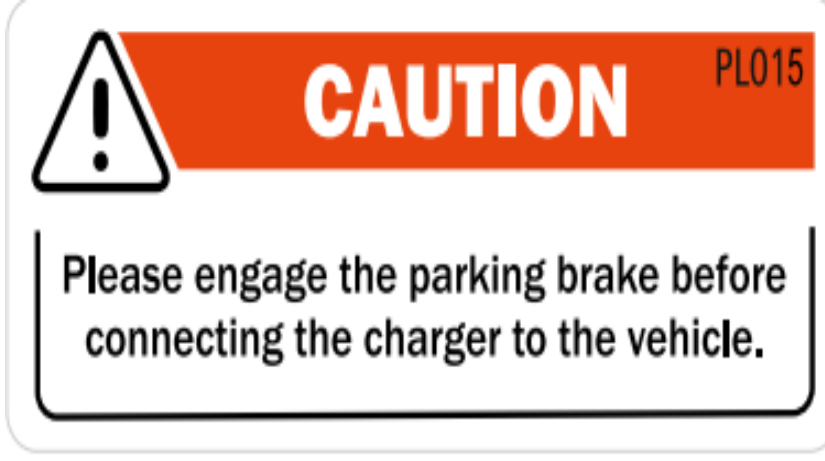

PL012
PL007
PL003


CAUTION
PL007
ECO
BOOST
2WD
4WD
• Press Yellow button for BOOST mode
• Please drive in ECO mode when battery reaches 85V
• Press Red button to shift to 4x4
• Release red button to shift to 2x4


CAUTION
PL012
Pull Break Lever and engage the notch to park


WARNING
PL003
DO NOT TOW FROM RACK OR BUMPER.
Vehicle damage or tip over may result in severe injury or death.
Tow only from the atv tow hooks or hitch.
Max. weight front rack 44lbs/20kg & Max. weight rear rack 44lbs/20kg.





NOTE :

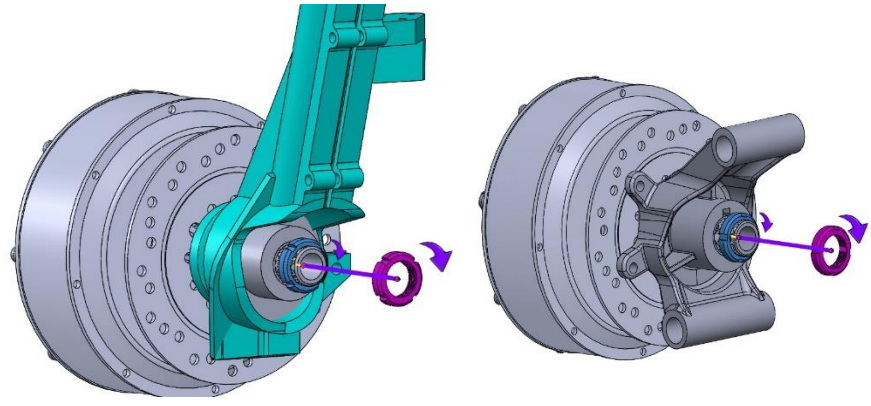
Warning decals have been placed on the vehicle for your protection. Read and follow the instructions on each decal carefully. In the event any decal becomes illegible or comes off, contact your dealer for a replacement.

3. DAILY PRE-RIDE INSPECTION

·You must inspect your ATV/Tractor each time before riding to ensure it is in proper working order. If proper inspection is not done, severe injury or death could result.
Use the following checklist to verify your machine is in proper working order each time you ride.

Item/Inspection procedure

1. **Tire** - Check tire condition and Air pressure.
2. **Battery check** - Check the battery level indicator.
3. **All brakes** - Check operation, adjustment and fluid level (includes secondary brake).
4. **Throttle** - Check for free operation and closing.
5. **Headlight / Taillight / Brake light**-check operation of all indicator lights and switches.
6. **Wheels** - Check for tightness of wheel nuts and motor shaft nuts;



7. Check that the motor shaft nuts are secured tightly to the hub.
8. **Steering** - Check for free operation noting any unusual looseness in any area.
9. **Loose parts** - Visually inspect the vehicle for any damaged components or loose nuts/bolts or fasteners.
10. **Diagnostic app** - Log in through your phone to check vehicle status.
11. **Operator's helmets, goggles and clothing** - Check to ensure they are in proper condition.

4. OPERATION WARNINGS

WARNING

You must inspect your ATV/Tractor each time before riding to ensure it is in proper working order. If proper inspection is not done, severe injury or death could result.

See **“3. DAILY PRE-RIDE INSPECTION”**

1.Sit upright with both feet on footrests and both hands on the handlebar.
2. After starting the ignition key switch, release the parking brake.
3. Check your surroundings and determine your path of travel.
4. Press the left hand brake and shift the gear into drive mode.
5. Slowly press the throttle with your right thumb and begin driving. The vehicle speed is controlled by the amount of throttle opening.
6. Drive slowly, practice maneuvering and using the throttle and brakes on level surfaces.

Making turns

Practice making turns at slow speeds

This ATV/Tractor is equipped with individual motors on each wheel giving it better stability and handling. To turn, steer in the direction of the turn leaning your upper body to the inside of the turn while supporting your weight on the outer footrest. This technique alters the balance of traction between the rear wheels allowing the turn to be made smoothly. The same leaning technique should be used for turning in reverse

WARNING

Avoid turning at sharp angles in reverse as this may result in a tip over and cause severe injury.

Riding on slippery surfaces

Whenever riding on a slippery surface such as wet trails or loose gravel, or during cold freezing weather, special attention must be paid to prevent the vehicle from a collision or turning over.

Always:

1. Slow down the vehicle and use additional caution when entering slippery areas.

2. Be alert while reading the trails and avoid quick sharp turns which can cause the vehicle to skid.

3. Correct a skid by turning the handlebar in the direction of the skid and shifting your body weight forward.

4. Never apply brakes during a skid. It can result in complete loss of control of the ATV/Tractor.

5. Do not operate on excessively slippery surfaces.

WARNING

Failure to exercise care when operating the ATV/Tractor on slippery Surfaces can be dangerous.

Loss of tire traction and vehicle control can result in an accident, including an overturn.

Traveling Uphill

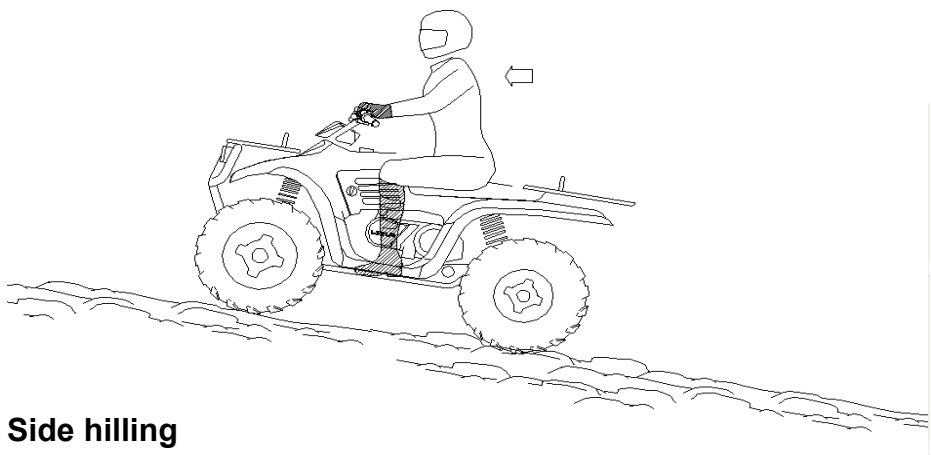
WARNING

Exercise extreme caution when traveling in hilly terrain.

Braking and handling are greatly affected. Loss of vehicle control or overturning of the ATV/Tractor could occur causing severe injury or death.

Whenever traveling uphill always travel straight uphill and:

1. Avoid steep hills (25%maximum).
2. Keep both feet on the footrests.
3. Transfer your weight forward.
4. Proceed at a steady rate of speed and throttle opening.
5. Remain alert and be prepared to take emergency action. This may include quick dismounting of the ATV/Tractor.



Side hilling

Side hill

Driving on a side hill is not recommended. Improper procedure could cause loss of control or overturn. Avoid crossing the side of any hill unless absolutely necessary.

Climbing the hills sideways with your ATV/Tractor can be dangerous and should be avoided. If you do enter into a situation where climbing sideways is necessary, always:

1. Slow down.
2. Lean your upper body weight towards the hill while keeping your feet on the footrests.
3. Steer slightly into the hill to maintain vehicle directions.
   If the vehicle begins to tip, quickly turn the front wheel downhill, if possible, or dismount on the uphill side immediately!

WARNING

Improperly crossing hills or turning on hills can be dangerous. Loss of vehicle control or overturning of the ATV/Tractor could occur causing severe injury or death.

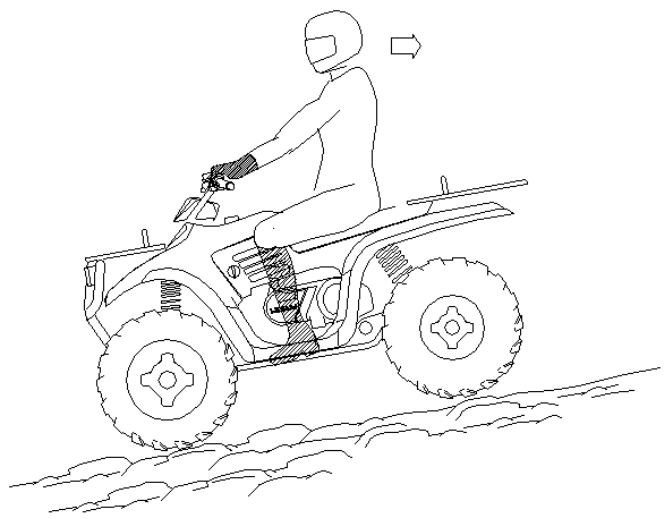
Traveling Downhill.

Whenever descending a hill, always:

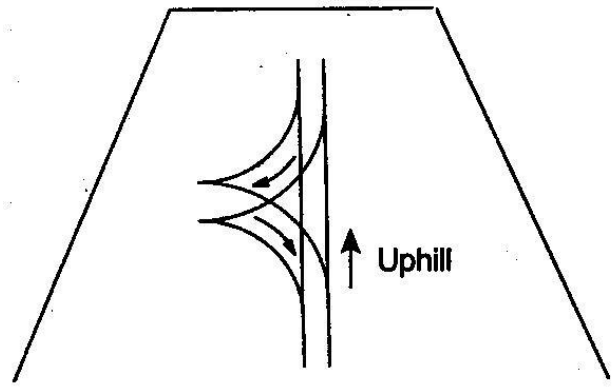
1. Drive directly downhill.
2. Transfer your weight to the rear of the vehicle.
3. Slow down. Never travel down the hill at high speed.
4. Always descend a hill with the transmission in Drive gear.
5. Apply the brakes slightly to aid in slowing.

WARNING

Do not travel at excessive speeds. It is dangerous and can cause loss of vehicle control and tipping, resulting in severe injury or death.



Turning Around On a Hill



If the ATV/Tractor stalls while climbing a hill, never back it down the hill! One maneuver which can be used when it is necessary to turn around while climbing a hill is the K-turn.

1. Stop and lock the parking brake while maintaining body weight uphill.
2. Shut off the vehicle and dismount on the left or uphill side of the ATV/Tractor.
3. Staying uphill of ATV/Tractor, turn handlebars full left (while facing front of ATV/Tractor).
4. While holding the foot brake, release the parking brake lock and slowly allow ATV/Tractor to roll around to your right until ATV/Tractor is pointing across the hill or slightly downward.
5. Lock the parking brake and remount the ATV/Tractor from the uphill side, maintaining body weight uphill.
6. Restart the vehicle and release the parking brake, and proceed slowly, controlling speed with the foot brake, until the ATV/Tractor is on reasonably level ground.

WARNING

Avoid climbing steep hills. Loss of vehicle control or overturning of the ATV/Tractor could occur resulting in severe injury or death.

Crossing Streams

Your ATV/Tractor can operate through water up to maximum recommended depths of 300mm. Before fording streams always:

1. Determine water depths and current.
2. Choose a crossing where both banks have gradual inclines.
3. Proceed slowly, avoiding rocks and obstacles if possible.
4. After crossing, dry the brakes by applying light pressure to the lever until braking action is normal.

CAUTION

Never operating the ATV/Tractor through deep or fast flowing water.

NOTE: After running the vehicle in water, it is critical your machine is serviced as outlined in the maintenance chart see **"14.maintenance"**.The following areas need special attention: Motor, controller and all grease fittings.

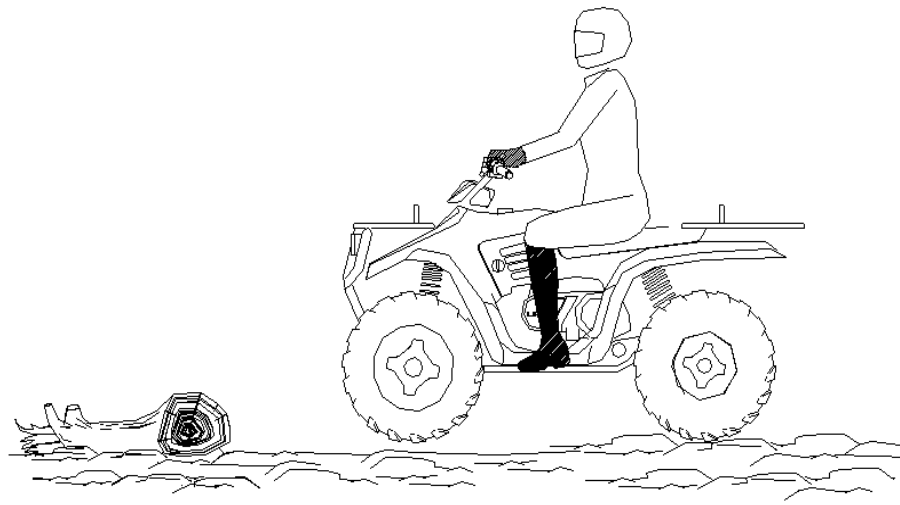
Trail Obstacles

Keep Alert!

Look ahead and learn to read the trail as you ride. Stay on the right side of the trail, if possible, and be constantly alert for hazards such as logs, rocks and low hanging branches.

WARNING

Not all obstacles are visible. Travel with caution on trails severe injury or death can vehicle comes in contact with a hidden obstacle.



WARNING

Backing your ATV/Tractor can be dangerous!

You could hit an obstacle or person behind you; or the vehicle could tip over backwards on a steep incline causing severe injury or death.

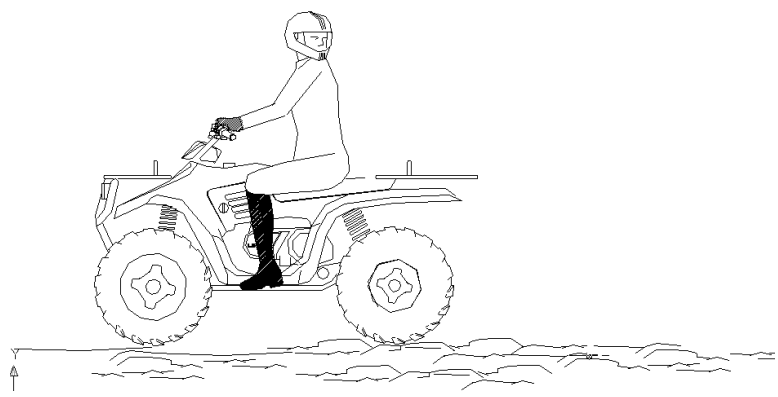
Backing up

1. Avoid backing up on steep inclines.
2. Always back slowly.
3. When in reverse, apply the brakes lightly for stopping.
4. Avoid turning at sharp angles in reverse.
5. Never open the throttle suddenly while backing.

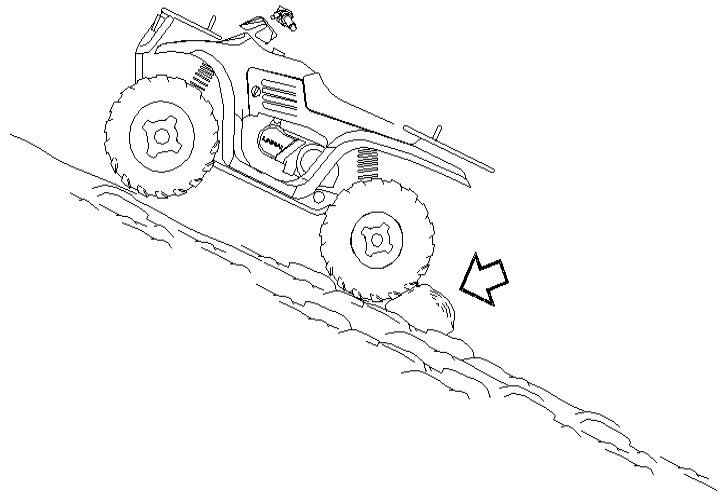
WARNING

Pressing the throttle more than required may cause over discharge of current causing the vehicle to stall and the battery to get damaged.

Always switch to Eco mode, when the vehicle charge is less than 50%.



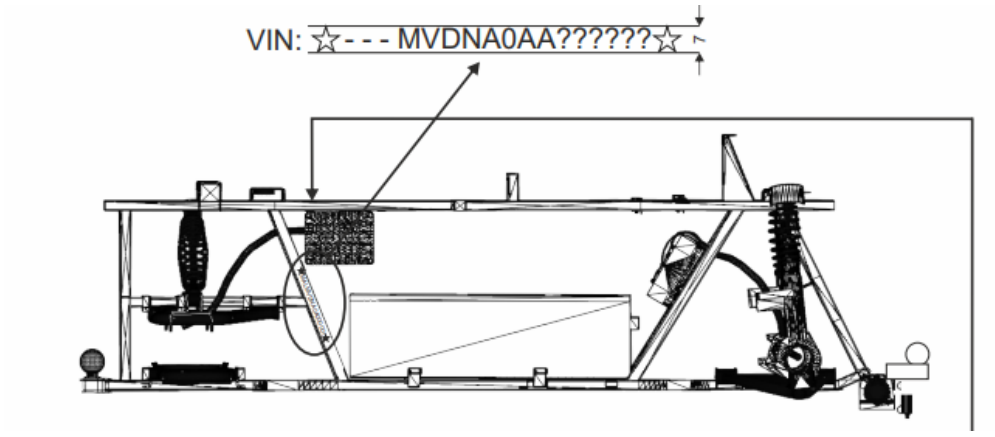
Parking on an incline



Whenever the vehicle is parked

1. Turn the engine off.
2. Place the transmission in Neutral.
3. Set the parking brake.
4. Shut off the vehicle.
5. Avoid parking on an incline. If it is necessary to park on an incline, always block the rear wheels on the downhill side as shown above.
6. Do not leave the ATV/Tractor on a hill on the parking brake for more than five minutes.

5. V.I.N



Record these numbers from your ATV/Tractor in the spaces provided.

1. Frame VIN (found on the lower Right side of the frame tube)

   Remove the spare key and store in a safe place. Your key can be duplicated only by obtaining a key blank and having it cut by mating it with your existing key.

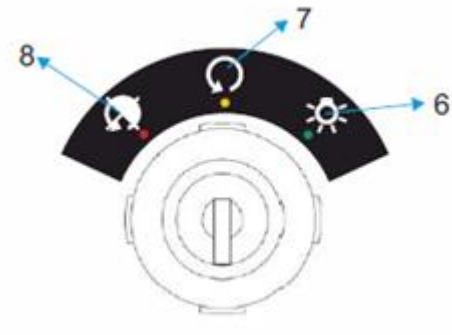
Record Key Number

The vehicle frame and Motor serial numbers are important for model identification when registering your vehicle, obtaining insurance or whenever replacement parts are required. In the event your vehicle were stolen these numbers are essential to the recovery and identification of your ATV/Tractor.

6. CONTROLS & FUNCTIONS

Insert the key into the key switch and turn it 'ON'

START SWITCH	
IGNITION SWITCH ON	
IGNITION SWITCH OFF	



8 'OFF' 7 'Controllers ON' 6 'Power ON'

WARNING

Never turn the key to 'OFF' position when the ATV/Tractor is in motion. Otherwise the electrical system will shut off, which is likely to result in loss of control and result in a fatal accident. Always make sure that the ATV/Tractor is brought to a complete stop before turning the key 'OFF'.

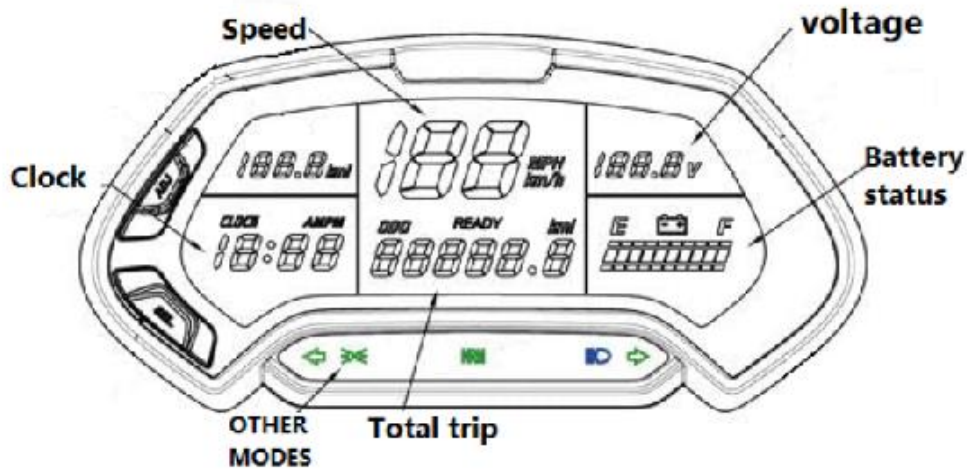
FULL CHARGE - 99 volts on display

RESERVE CHARGE - 86 volts (50% battery, ride in Eco)

LOW - 80 Volts (20% Battery, connect the vehicle for charging).

EMPTY - 77 Volts (Battery empty charge the vehicle immediately)

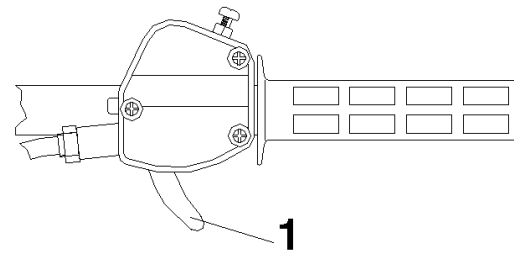
Speedometer:



12V+	LED power line	
	Position Lamp	LED green
	high beam light	LED blue
	right steering	LED green
	left steering	LED green

WARNING

Do not start or operate an ATV/Tractor with improper operation throttle controls. A stuck or improperly operating throttle could cause an accident resulting in severe injury or death. Always contact your dealer for service repairs whenever throttle problems arise. Failure to check or maintain proper operation of the throttle system can result in the throttle lever getting stuck during riding and cause an accident. Always check the lever for free movement and return before starting the engine and occasionally during riding.



Throttle Lever
Motor speed and vehicle movement are controlled by pressing the throttle lever. The throttle lever (1) is electronically controlled and the vehicle comes to a stop when the lever is released.

WARNING

Spraying water on the throttle body or operating the ATV/Tractor in rain can result in the vehicle electronics /or the throttle mechanism getting wet.

This may lead to the throttle not working properly and can cause the engine to continuously run resulting in loss of control.

Front and Rear Brakes

The brake fluid level should be checked before each ride. The reservoir of the hand brake is located on the left side of the handlebar. The reservoir of the foot brake is located on the Rear right side below the fender. The fluid should be maintained between the maximum and minimum marks.

CAUTION

Once a bottle of brake fluid is opened, use what is necessary and discard the rest. Do not store or use a partial bottle of brake fluid. Brake fluid is hygroscopic, meaning it rapidly absorbs moisture from the air. This causes the boiling temperature of the brake fluid to drop,

which can lead to early brake fade and the possibility of severe injury.

Front and Rear Brakes

The front and rear brakes are located on the inside of the right floor board and are operated by the right foot. The front and rear brakes are hydraulically activated disc type brakes which are activated by one pedal only.

Always check brake pedal travel and reservoir fluid level before riding. When pressed, the pedal should feel firm. Any sponginess would indicate a possible fluid leak or low master cylinder fluid pedal which must be corrected before riding. Contact your dealer for proper diagnosis and repairs.

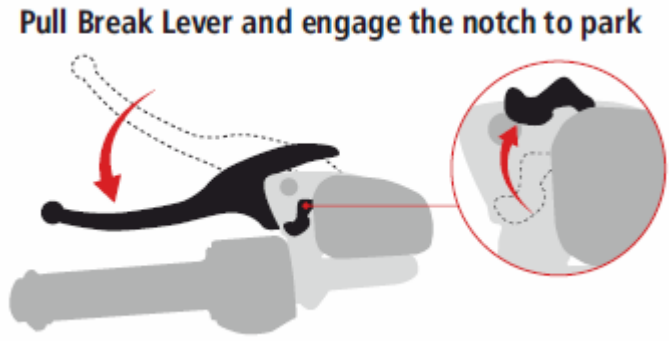
WARNING

Never operate the ATV/Tractor with a spongy feeling brake pedal. Operating the ATV/Tractor with a spongy brake pedal can result in loss of braking. Loss of braking could cause an accident

Setting the Parking Brake：

1. Pull the left hand brake Lever and hold it.
2. Push the park brake lock into the notches on the lever body.
   Release the brake lever.

To release the parking brake lock, Pull the brake lever. It will return to its released position.



Important Safeguards

- The parking brake may release when left on for a long period of time. This could cause the ATV/ Tractor to roll down causing an accident.
- **Do not park the vehicle on a hill for more than five minutes only relying on the parking brake.**
- Always block the downhill side of the wheels if leaving the ATV/Tractor on a hill or park the ATV/Tractor in a side hill position.

WARNING

Always check to be sure that the parking brake has been disengaged before operating the ATV/Tractor. An accident could result causing severe injury if the parking brake is left on while the ATV/Tractor is operated.

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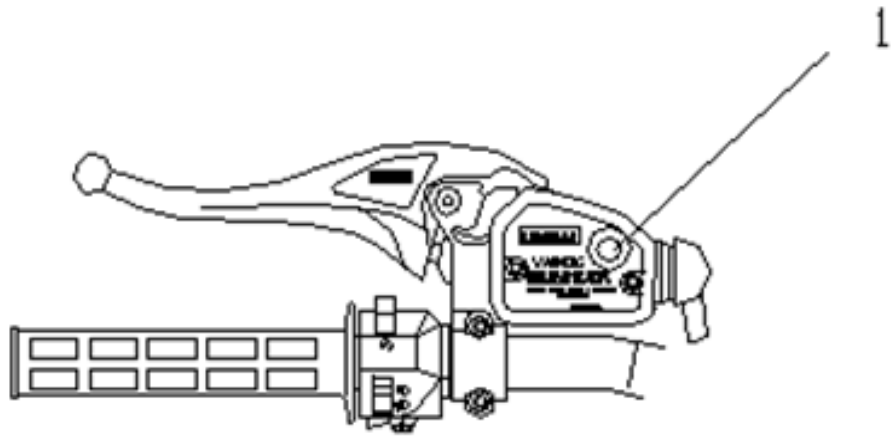
WARNING

Hand Brake

Use caution when applying the hand brake. Do not aggressively apply the hand brake when going forward or the rear wheels may skid and slide sideways causing loss of control.

Hand Brake Fluid Level



Top Window or Side window

The brake fluid level is located on the left hand side of the handlebar, and should be checked before each ride. There is an indicator window (1) on the top of the master cylinder. This window will appear dark when the fluid level is full. When the fluid needs to be added, the window will be clear.

NOTE: When checking the fluid level, the ATV/Tractor must be on level ground and the handlebars must be straight. If the fluid level is low add DOT 4 only.

On some models, there is a "side window", the fluid level can be seen through it, and should be maintained between the indicated "max" and "min" marks on the reservoir.

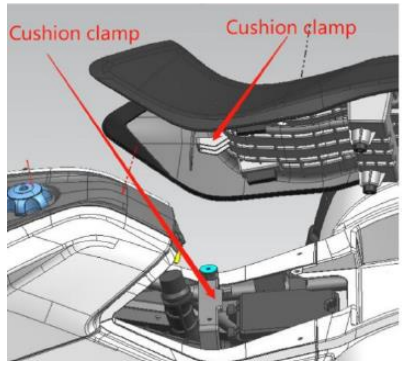
Foot Brake Fluid Level

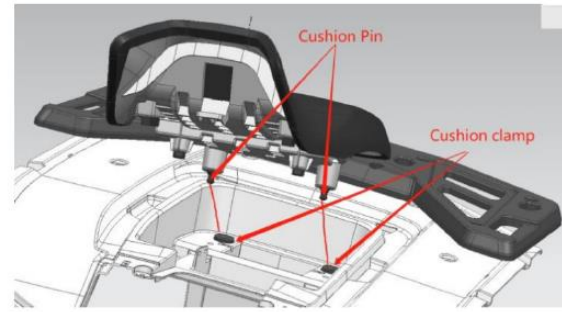
The foot brake fluid Reservoir is located on the right hand side of the vehicle, below the rear fender and should be checked before each ride.

The fluid level can be seen through it, and should be maintained between the indicated "max" and "min" marks on the reservoir.

NOTE: When checking the fluid level, the ATV/Tractor must be on level ground and the handlebars must be straight. If the fluid level is low add DOT 4 only.

Operator's Seat





CAUTION

To avoid personal injury: :

1. Make sure that the seat is completely secured.
2. Do not allow any person other than the driver to ride on the ATV/Tractor.
3. Follow the warning instructions below the seat to lock the seat properly.

Gear Selector Operation

The gear Switch is located on the right side of the speedometer Dashboard.

The Gear switch has three positions: Forward (D); Reverse (R); and Neutral (N).

CAUTION

Always place the Gear switch in Neutral mode with the parking brake locked whenever the vehicle is left unattended.

In case you experience any gear shifting issue please contact your nearest dealer.

4 Wheel Drive / Eco –Boost

Press the RED BUTTON inside to shift to 4 wheel drive mode.

Press YELLOW BUTTON to shift to BOOST MODE

2WD / 4WD

CAUTION:
Always stop the vehicle before shifting the GEAR and or shifting the vehicle 2WD/4WD drive modes

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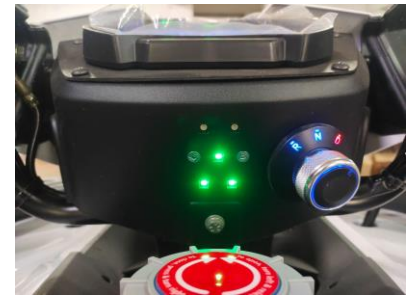
4WD ON

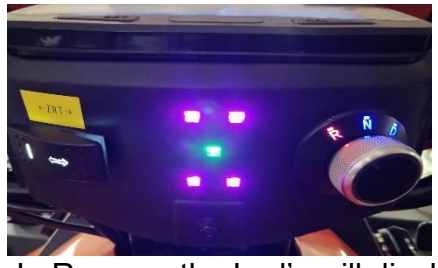
2WD ON



NOTE:

When shifting to 2WD/ 4WD, the mechanics of the front motor may still be engaged/ disengaged and you are requested to wait for 3 seconds for it to Engage/ Disengage, the Green Led's on system will display if it's in 2WD or 4WD. In 4WD all the four leds will display Green color, in 2WD only the bottom Led's will display Green color.

REVERSE



In Reverse the Led's will display purple color in 4x4 and only bottom two will display purple in 4x2.

WARNING

You must inspect your ATV/Tractor each time before the ride to ensure it is in proper working order. If proper inspection is not done, it could result in severe injury or death.

7. CHARGING THE VEHICLE

Charging the Battery

1. Make sure the parking brake is engaged.
2. Make sure the power on/off switch is OFF.
3. Open the charging port cover placed on the tank cover.
4. Insert the charging connector into the charging socket.

5. Connect the charger supply cable to a 15 amps electrical wall socket. Connecting to a lower output socket may trip the electricity.
6. A Red LED flickering confirms the battery is charging (Percentage completion), a Green LED indicates the battery is full. If the Red and Green light is flickering, it means the vehicle is not charging.

7. The electric ATV/Tractor is equipped with a standard 240V 2000 watt charger with a standard charge time of 6 hrs.

8. Powerland also gives an option to the customer to purchase a combined Level 1 / Level 2, 3300 watt charger that can be plugged directly into any 120V or 240V outlet.

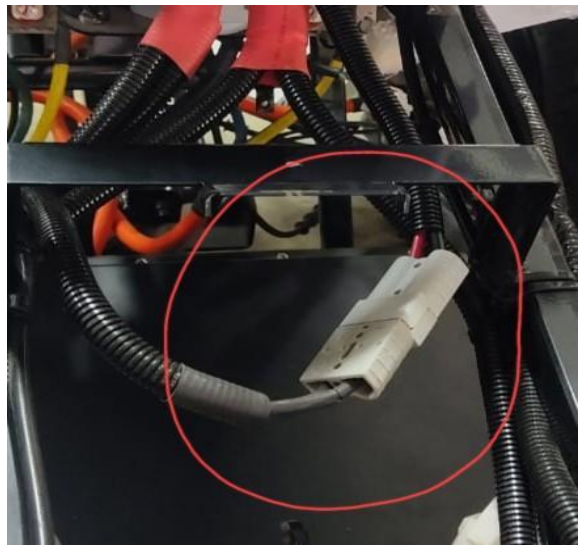
9.For faster charge times, a 240V outlet is required. It can greatly reduce charge times and get you back to work sooner. You could also purchase an additional J1772 female adapter to help you charge your vehicle on an AC public charging station by connecting it to the existing charger.

10. After finishing the charging process, switch the wall plug off and disconnect the charger from the electrical socket, and afterwards, disconnect the charging plug from the Powerland ATV/Tractor.
11. Close the charge port cover.

Troubleshooting tips if battery is not charging

If the red light of the charger is not flickering or Red & Green light is flickering.

- Please check if the male charging connector is properly connected to the vehicle charging socket.
- Please check below the seat and see if the charging connector from the battery is connected to the female charging connector of the vehicle.
- Check, below the seat for connection as shown in below fig.



- If the Red and Green light is flickering, the vehicle is not charging. You need to put the charger power supply off & wait till the indicator light goes off, later switch on the power supply.
- Please connect the Bluetooth AXEBMS app to an android phone as shown below fig.

If the vehicle stops charging mid-way and the charger LED shows

green (full charge) despite the vehicle being discharged and the vehicle refuses to charge, please shut the charging off and contact the nearest dealer to help you sort the issue.

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

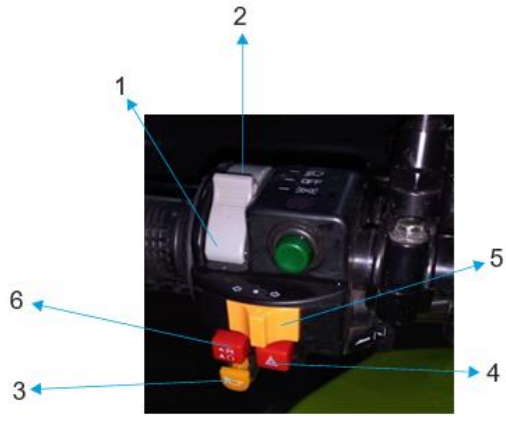
1. Do not sit on the ATV/Tractor while the vehicle is charging.
2. The charger is intended for use with Electric ATV/Tractor battery packs supplied by Powerland only. Do not use batteries and chargers that are not supplied by Powerland.
3. Make sure to charge the vehicle once every 15 days even if the ATV/Tractor is not in use.
3. The ATV/Tractor should be parked in a dry warm, well-ventilated area where temperatures are maintained between 5 degrees to 40 degrees Celsius.
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. Do not disassemble the charger. When repair or service is required, contact our authorized service center.
7. More information on charging can be found in the user manual that is supplied with the charger.

<u>WARNING</u> :

Please do not leave the vehicle unattended for too long while charging. Powerland does not recommend charging the vehicle overnight. Please keep a watch on the charging time and the color of the led light being displayed on the charger while charging.

WARNING :

Charge the ATV/Tractor once in 15 days even if it is not in use. If the ATV/Tractor will be not in use for more than 8 days, please shut off the battery Isolator switch located on the left switch assembly. Also check the battery power button light (Green color) is off. The battery power button is located on the Front/Top left side of the battery pack (Fig :1).



1	BEAM SWITCH	
2	HIGH BEAM	
3	HORN SWITCH	
4	HAZARD WARNING	
5	TURN INDICATION SWITCH	
6	BATTERY ISOLATOR SWITCH	

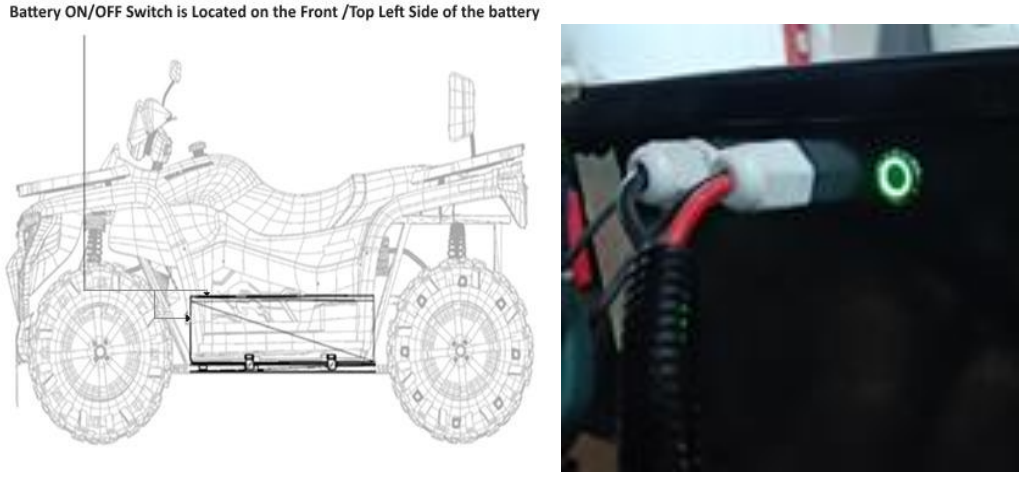


Fig : 1

Leaving your ATV/Tractor not charged for over 2 weeks where the lithium-ion battery pack reaches a zero or near zero state of charge will lead to the warranty getting void.

8. Troubleshooting and Errors

The following table provides instructions for troubleshooting and repairing the Powerland electric ATV/Tractor.

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.

#	Problem	Possible cause	Repair
1	ATV/Tractor does not drive when throttle is pressed	Power on/off switch is set to OFF	Rotate the power on/off key switch to ON.
		Battery is not charged	Charge battery.
		Parking brake is locked or ATV/Tractor Gear in Neutral position	Release parking brake lock, Press the brake and shift to D (Drive)
2	Performance decrease while driving under heavy load	Controller / Motor Overheating / One motor not working/ Driving in ECO	Stop and shut down the ATV/Tractor. Check on VIU or Powerland APP for errors.
3	Unstable ride	Flat or Incorrect tire pressure	Repair the tire.
		One motor not working	Check the VIU, Lift the entire vehicle on jack, switch to ECO 4X4 driving mode and give slight throttle and check if all four wheels are working (or) Contact the service center.

4	Motor error, Red light /or no light shown on VIU.	Angle sensor error, controller or motor overheating issue (or) wiring loose contact or damage	Power on/off switch once, if the error continues, Ride the vehicle slowly to your home. Try to Lift the entire vehicle on jack, give slight throttle and check if all four wheels are working. If any of the wheels doesn't rotate, please Contact the nearest service center. Do not use the vehicle further!
5	Power does not slow down as usual when releasing the throttle	VCU malfunction or throttle or wiring issue	Check for throttle wire damage. 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.
6	Brake noise during riding	Foreign object caught between brake pad & rotor.	Release the foreign object.
		Brake pad touching the rotor	Check for non-uniformity in the disc plate. Check and Adjust the brake pad alignment.

7	ATV/Tractor Gear does not Shift from D/N/R	Left hand brake switch malfunction due to water, moisture or dirt. Or Gear shifter has failed.	Please blow air on the bottom side of the left hand brake switch as shown in the figure 8.1 or wait for a few minutes for the water to dry. If the issue continues, contact the nearest service center.
8	Lights do not operate	Switch malfunction	Turn the lights off and on again.
		Electrical system malfunction	Check integrity of wiring.

- **GEAR SHIFTING ISSUES** – If faced with an issue of gear shifter stuck in one drive mode (D/N/R) or the vehicle is cutting power. Kindly check the left handlebar brake switch below the handbrake master cylinder.

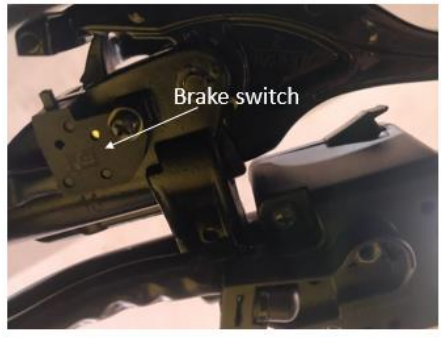


Fig- 8.1

Please clean or blow air on the switch placed at the bottom side of the left-hand brake lever till the brake switch is completely dry and try again. In the event of a malfunction that prevents the use of the vehicle, we request you to connect the vehicle to the mobile app to analyze the error.

VIU error codes :

In case of an error or a failure in one of the motors or controllers, the led on the VIU dash will turn RED alerting the driver if any of the wheels has stopped rotating. Request you stop the vehicle immediately to analyze the issue.

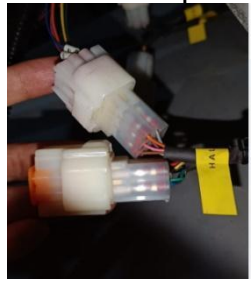
a) Red Light shown on one of the wheels on VIU Screen.

- Request you to please check on the Powerland app for errors and pay attention to the buzzer codes emitted from the controller.
- In case the beeps are 3 & 4, and the app shows an ANGLE SENSOR ERROR.
- Request you lift the entire vehicle on the jack, put the vehicle in 4x4 eco mode, give throttle gently and observe if all four wheels are working.
- Observe the particular motor as shown on VIU screen (for eg. The rear left is showing red on the above pic means the left motor there is an issue).

- If one of the following motors is not working:

  Option 1-

  Request you to replace the 6 pin motor hall socket 1 connected to the controller with the spare hall socket 2 from the motor. (Please remove the cover cap before connecting)



  Restart the vehicle and see if all the lights show green and error on the VIU is gone. If the error continues please call the company personnel to sort out the issue.

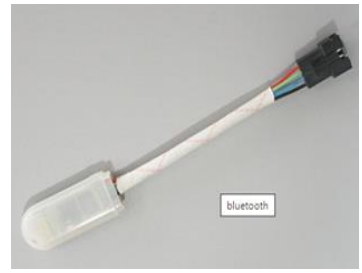
  If the company personnel tells you to calibrate the hall sensor, you

would need to follow option-2.

Option 2-

The motor requires re calibration. Request you to download the Kelly controller app from https://kellycontroller.com/support/. Download the Kelly KLS configuration program PC or Android version. You will require a windows 7/10 pc or an android phone.

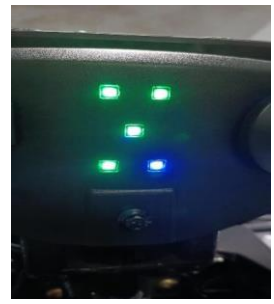
We suggest connecting Bluetooth using an android phone. Connect the Bluetooth module provided to you with the vehicle to the non-working motor controller.



1) Pair the bluetooth with your phone in bluetooth settings. Device name (Example 18052607) (password -1234)
2) Log in to the KELLY AC Aducer app.
3) You will get a warning note, please click YES.
4) Please select Bluetooth COM and click YES.
5) Press CONNECT/OPEN to the paired device after it shows connected, press R(Read).
6) Controller data will start appearing.
7) Scroll down to Motor identification En, 1st column 12th row.
8) Adjust the value from 85 to 170.
9) Click W(Write) on the bottom right side corner.
10) Message - data write completely, Click ok
11) Shut the vehicle off/on. you will notice the motor moving gently and calibrating.
12) It may take 1 min. Allow the motor to calibrate until the controller starts beeping.
13) Put the key off/on once again, calibration is complete and VIU lights should appear green in drive mode.

For better understanding of the process please see our hall sensor configuration video from our website or contact your nearest dealer.

b) Blue light shown on one of the wheels on the VIU screen.



- Request you to please check on the Powerland app for errors and pay attention to the buzzer codes emitted from the controller.
- In case the beeps are 3 & 3, It is an HALL OPEN ERROR.
- Request you to check the 7 pin controller socket 1 of the motor which is not working. (for eg -On the above VIU the right rear motor is showing blue) hence we will have to check the right rear controller socket.
- Please check if there is any loose connection in any one of the pins. Please check all the wire connections on the controller and also the front VCU.
- If the error continues to persist, request you to contact the customer service executive.

CONTROLLER BUZZER ERROR CODES

Beep Code	Explanation	Solution
1,1	Automatic error identification	1. Wrong wiring of motor phase line or hall. Please suspend the motor when enable Auto-Identify function.
1,2	Over voltage error	2. Battery voltage is too high for the controller. Check battery volts and configuration. 3. Regeneration over-voltage. Controller will have cut back or stopped regen.
1,3	Low voltage error	The controller will clear the error after 5 seconds if battery volts return to normal. Check battery volts & recharge if required.
2,3	Controller Over temperature	The controller temperature has exceeded 100℃. The Controller will cut power for a few minutes and will auto restart when temperature falls below 80℃.
3,2	Internal reset	May be caused by some transient fault condition like a temporary over-current, momentarily high or low battery voltage. This can happen during normal operation.

3,3	Hall throttle is open or short-circuit	When the throttle is repaired, a restart will clear the Fault.
3,4	Angle sensor error	Speed sensor type error, customers may set the correct sensor type through user program or App. Please download how to use Identification function instruction from our website.
4, 3	Motor over-temperature	Motor has overheated, The controller will cut off power and restart once the motor temperature cools down.
Customers may read error codes in PC software or Android Tablet		

In the event of the vehicle going off completely and the speedometer dash not coming on, we request you to please contact the company or the dealer for Android/IOS app to check the battery status.

Battery Management System (BMS)

Please refer to chapter 10-Battery to understand the process of connecting the phone to the BMS app. To understand the battery live data & errors the Protect info and Warning info on the bottom of the app.

Please check for any errors indicated.

9. MOTOR

1) MOTOR OPENING

Loosen the wheel nuts by using a 17mm box spanner and remove the wheel.

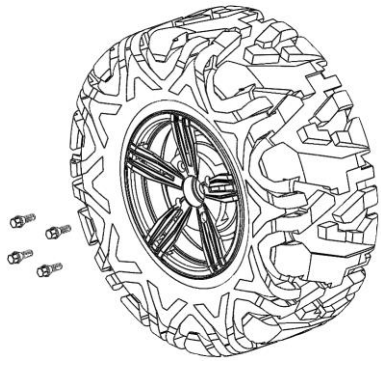


Fig no :01

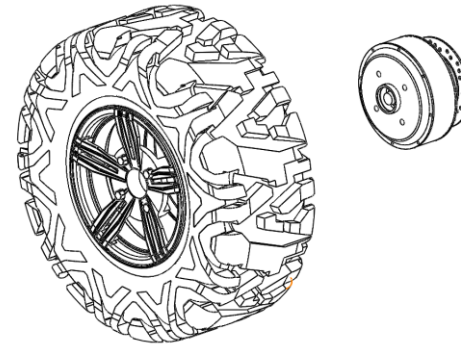


Fig no :02

2) Remove all the Allen bolts on the back plate of the motor shown on fig no: 2 using a 4mm Allen key.

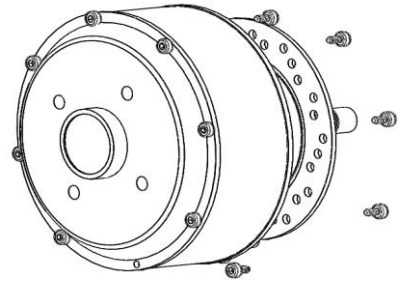


Fig no :03

3) Remove the central water seal rubber cap (Fig no-04) of the motor by using a minus screwdriver.

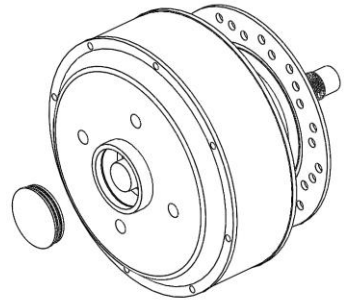
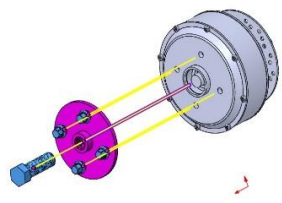
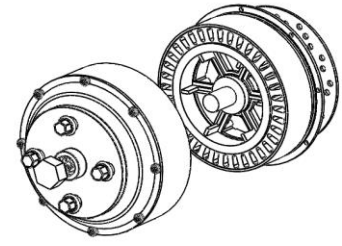


Fig no :04

4) Attach the motor puller bolt (provided with the ATV/Tractor) to the motor using stud bolts.





Use the hydraulic or electric impactor to tighten the puller bolt with torque 120 nm-, to gently pull out the motor casing.

If you notice any rust or water inside the motor please clean the motor armature/stator, magnet casing by using 220 Grit Emery paper.

Use Thinner or petrol to clean the motor armature/stator, WD40 for cleaning motor magnet casing thoroughly from inside.

Replace the bearings on the front and the back cover plates if there is a jam or play in the motor.

Before you refit the motor, clean the old dried sealant between the motor casing and the motor back cover plate.

Apply new silicone sealant on both the parts (motor casing & cover plate) and align the motor magnet casing to the motor stator.

Then slowly loosen the motor puller bolt by adjusting the casing. Rotate the

motor back cover plate aligning it with the casing. Tighten all the Allen bolts. Fit the oil seal in the center and seal the entire motor. **Request you to please contact the dealer or company to access the service video for better understanding the procedure and safety.**

1) **Hall Sensor checking**

A) To check the hall sensor we need the following instruments- a Multimeter and the motor has to be connected to the vehicle controller or a 5 volt battery.

B) Set the multimeter to DC, connect the black probe with COM and red probe with Vhz on the multimeter as shown in the figure below.

C) Connect the red probe with the red wire of the hall connector and the black probe with the black wire of the hall connector as shown in figure 9.1 below in order to confirm the 5 Volt DC output.

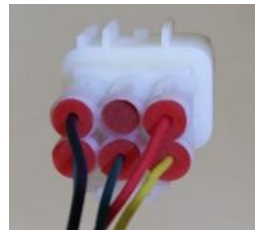


Fig 9.1

D) Now connect the red probe with the red wire of the hall and connect the black probe to the yellow wire of the hall. Now slowly turn the motor by hand, the multimeter should change

between 5 volts (4.8 - 4.2) to 0 volts. If you get the above readings the hall sensor is ok.

E) Use the same method to test the other two halls blue and green by checking each one individually.

F) If the hall sensor is showing lower than 4.2v, it means the hall sensor is damaged and needs replacement.

G) To replace the hall sensor please contact the nearest dealer or the company by email.

Precautions to be taken

Once the motor is connected with the controller, we should confirm the controller power supply first. (The Red/Black line which the Multimeter measured should be 5v DC).

For External 5v DC power, the positive pole should be connected with the red wire of the Hall, and the negative pole should be connected with the Black wire of the Hall, not allowed to access the anti-Line.

2) Hall sensor replacement

A) Instruments required – Nipper, Electric Iron, Multimeter, Hall sensor, Dry glue, and Shrink sleeve 2 mm.

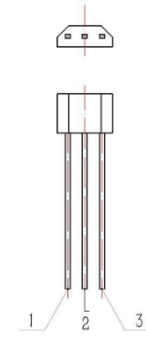
B) With the help of a Nipper, cut the connection of the damaged Hall sensor.

C) Use a minus screwdriver and the blade to take out the damaged hall. Clean up the groove.

D) Apply some dry glue on the new hall and stick it inside the hall groove.

E) Use electric iron to solder the 3 hall pins

1) Red Line VCC
2) Black Line GND
3) Signal Line .



10.BATTERY

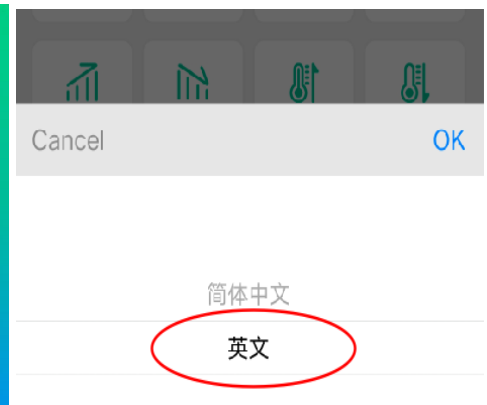
WARNING

Powerland Electric ATV/Tractor comes equipped with a high voltage Lithium battery, tampering or working on the battery can be extremely dangerous and in case of any failure or error, we request you to contact the nearest service center of Powerland ATV/Tractor.

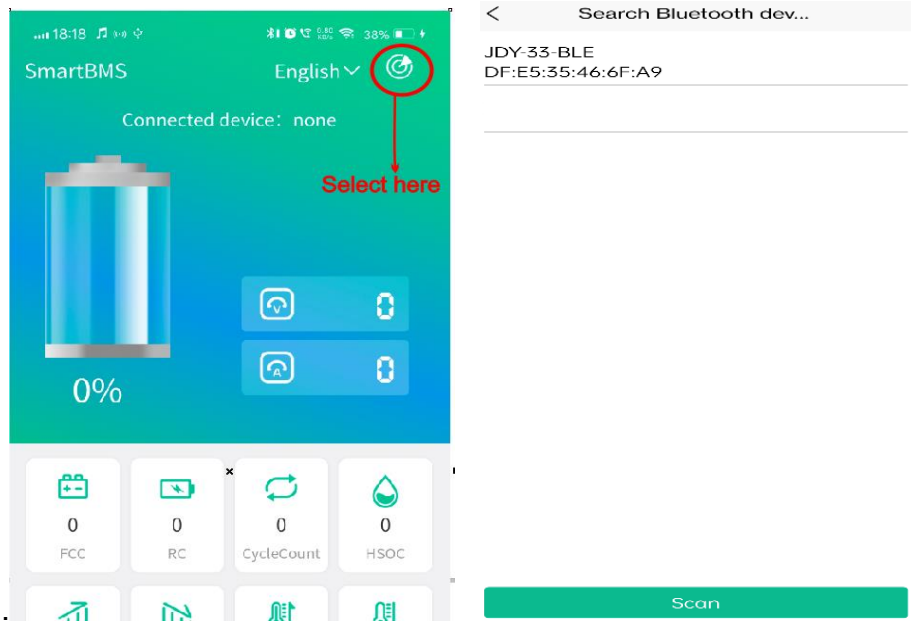
The battery is equipped with SMART BMS technology which with the help of Android/ IOS phones can be accessed through the AXEBMS Bluetooth app to monitor the battery pack.

- **Connecting to Bluetooth AXEBMS**

1) Please stand next to the vehicle and make sure Bluetooth is turned ON on your mobile phone.
2) Now open the BMS APP **(AXEBMS)** you downloaded. Select the Language option to change the language to English.



3) Go to the search option and scan for new devices. you will find a device with the name JDY-33-BLE. Please select that and proceed further.

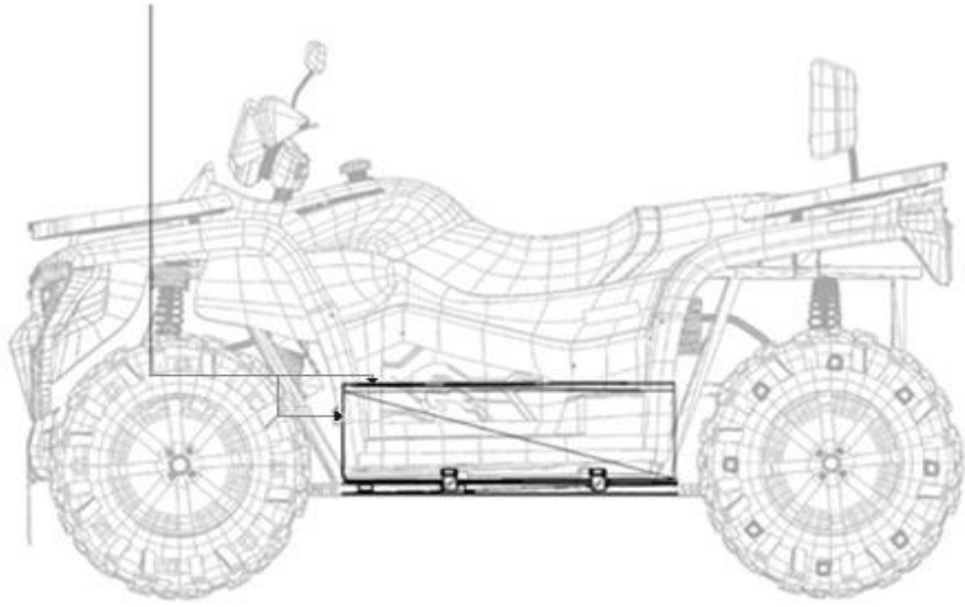


4) In case you cannot find the device name, please take the phone closer to the vehicle driver seat and try again.
5) After connecting the device successfully, the battery parameters will appear on the screen. In case of any errors kindly note them and contact the dealer or company representative.

Safety precaution – Always switch off the battery If the vehicle is to be kept idle or in off condition for more than two weeks or when you are planning to carry out mechanical repair work on the vehicle.

To switch off the battery press the Battery power button (Silver color with green led glow) on the vehicle battery box located on the Front/Top Left side of the battery box located below the seat.

Battery ON/OFF Switch is Located on the Front /Top Left Side of the battery



WARNING – Sudden hard acceleration can lead to higher consumption of amps resulting in the battery management system (BMS) cutting off the power and leading the battery into over-discharge current protection mode.

In the above case you will have to shut down the vehicle, wait for a few minutes and restart it once again. If the vehicle refuses to start, request you to please contact the nearest Powerland dealer or distributor.

Battery Warranty and Maintenance

1) Please do not expose the battery pack to ambient temperatures above 49 degrees C (120 F) or below - 25 degrees C (-13 F) for over 24 hrs.
2) Do not leave your battery pack unused for over 2 weeks where the lithium-ion battery reaches a zero or near zero state of charge.
3) Do not try to physically damage or expose the battery pack to fire or hazardous chemicals.

4) Always open the battery pack enclosure from an authorized company personnel.
5) Like all lithium-ion batteries, the battery pack will experience gradual loss of capacity with time and use. Due to this the range after 1000 cycles or 3 years would be typically around 70% of the range as at the beginning of the ATV/ Tractor life. The gradual loss of battery pack capacity is NOT covered under warranty.

WARNING

Not following the above guidelines will lead to the battery warranty being void. Request you to further read the warranty card for better understanding on the same.

11. CARRYING LOADS

Your ATV/Tractor has been designed to carry a certain amount of load. CARGO WEIGHT should be evenly distributed (1/3 on the front and 2/3 on the rear) and mounted as low as possible. When operating over rough or hilly terrain, reduce speed and cargo to maintain stable driving conditions. Never exceed the weights specified in your Owner's Manual.

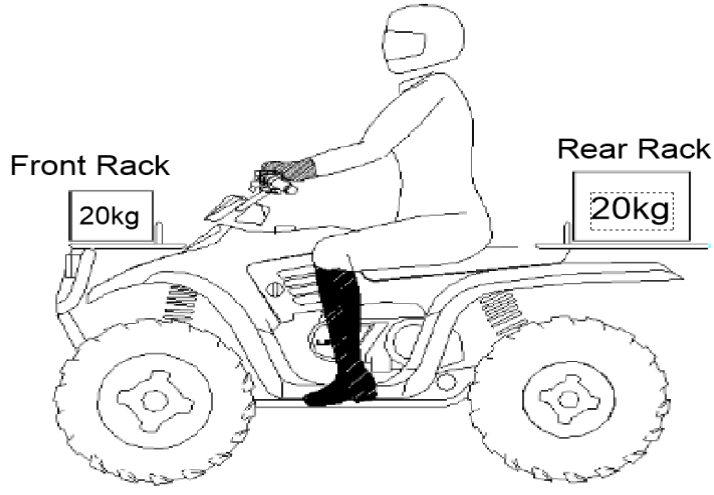
Maximum towing Capacity -661 lbs/300 kgs on level ground, 440 lbs / 200kgs at maximum 15˚ gradient.

Maximum vertical hitch weight-22 lbs (10kg).

Improper loading of the front rack can obstruct the headlight beam, reducing night visibility. Do not obstruct the headlight beam with cargo.

WARNING

Correct loading of this vehicle is necessary to maintain proper stability and operating characteristics. Overloading or incorrect positioning of the load affects the vehicle's turning, stopping distance and stability. Failure to follow loading requirements could cause severe injury or death.



Important Safeguards

To reduce the risk of injury or machine damage when carrying loads, read and follow the warnings listed below:

- Reduce speed and allow greater distance for braking when carrying cargo.
- Carrying loads on only one rack increases the possibility of vehicle tip-over.
- Heavy load can cause braking and control issues. Use extreme caution when applying brakes with a fully loaded vehicle. Avoid extreme terrains or situations which may require backing downhill.
- All loads must be secured before moving the vehicle. Unsecured loads can create unstable operating conditions and could result in loss of control of the vehicle.
- Loads must be carried as low on the racks as possible. Carrying loads high on the racks raises the center of gravity of the vehicle and creates a less stable operating condition. When cargo loads are carried high on the racks, the weight of the loads must be reduced to maintain stable operating conditions.
- Operate only with stable and safely arranged loads. Avoid handling off-centered loads which cannot be centered. Always attach the tow load to the hitch point designated for your ATV/Tractor.
- Extreme caution must be used. Avoid operating with loads extending over the rack sides. Stability and maneuverability may be adversely affected, causing the vehicle to overturn.
- Do not block the headlight and the reflectors when carrying loads on the racks.
- Do not travel faster than the recommended speeds. Vehicle should never exceed 10 mph (16 km/h) while towing a load on a level grass surface. Vehicle speed should never exceed 5 mph(8 km/h)

when towing loads in rough terrain, while cornering, or while ascending or descending a hill.

TOWING LOADS

Always attach a towed load to the hitch point. Disconnect the hitch from the ATV/Tractor when not towing a trailer. If towing a loaded trailer, reduce rear rack cargo weight by the amount of tongue weight.

• The combination of rear rack cargo weight and tongue weight must not exceed the rear rack capacity.

• The total load (operator, accessories, cargo and weight on hitch) must not exceed the maximum weight capacity of the vehicle.

WARNING
Using an improper hitch or exceeding the maximum tongue weight capacity can result in serious damage to the vehicle and will void your ATV/Tractor warranty. Never install a hitch longer than 4"(10 cm).
Never install automotive accessories on your POWERLAND ATV/Tractor. Always install POWERLAND-approved (or equivalent) accessories designed for ATV/Tractor use.

TOWING YOUR VEHICLE

If towing your vehicle is necessary, shift the transmission to neutral for better mobility and to prevent damage to the power train. Always attach the tow cable to the front hook or the winch hook of the disabled vehicle. A rider must be sitting on board the vehicle to steer the disabled vehicle while towing.

Please follow the below procedures when transporting the vehicle.

1. Switch off the vehicle..
2. Place the transmission in Neutral.
3. Secure the seat.
4. Remove the key to prevent loss during transportation.
5. Use suitable straps or rope to secure the vehicle to the front tow hook and rear tow bracket. Do not attach tie straps to the front A-arm bolt pockets, racks, or handlebars.

WINCH SAFETY
This condition implies when your vehicle is equipped with a winch or if you choose to add an accessory winch to your vehicle.

WARNING

⚠ WARNING

Improper winch use can result in SEVERE INJURY or DEATH. Always follow all winch instructions and warnings in this manual.

Your winch may have a cable made of either wire rope or specially designed synthetic rope. The term "winch cable" will be used for either unless noted otherwise.

WINCH SAFETY PRECAUTIONS

1. Read all sections of this manual.
2. Never use alcohol or drugs before or while operating the winch.
3. Never allow children under 16 years of age to operate the winch.
4. Always wear eye protection and heavy gloves when operating the winch.
5. Always keep body, hair, clothing and jewelry clear of the winch cable, fairlead and hook when operating the winch.
6. Never attempt to "jerk" a load attached to the winch with a moving vehicle.
7. Always keep the area around the vehicle, winch, winch cable, and load clear of people (especially children) and distractions while operating the winch.
8. Always turn the vehicle ignition power OFF when it and the winch are not being used.
9. Always be sure that at least five (5) full turns of winch cable are wrapped around the winch drum at all times. The friction provided by this wrapped cable allows the drum to pull on the winch cable and move the load.
10. Always apply your vehicle's park brake and/or park mechanism to hold the vehicle in place during winching. Use wheel chocks if needed.
11. Always align the vehicle and winch with the load directly in front of

the vehicle as much as possible. Avoid winching with the winch cable at an angle to the winching vehicle's centerline whenever possible.

12. If winching at an angle is unavoidable, follow these precautions:

a. Look at the winch drum occasionally. Never let the winch cable "stack" or accumulate at one end of the winch drum. Too much winch cable at one end of the winch drum can damage the winch and the winch cable.

b. If stacking occurs, stop winching. Follow step 15 of Winch Operation to feed and rewind the cable evenly before continuing the winch operation.

13. Never winch up or down at sharp angles. This can destabilize the winching vehicle and possibly cause it to move without warning.

14. Never attempt to winch loads that weigh more than the winch's rated capacity. **(POWERLAND's MAX WINCH CAPACITY IS UPTO 1500 LBS or 680 KGS).**

15. The winch motor may become hot during winch use. If you winch for more than 45 seconds, or if the winch stalls during operation, stop winching and permit the winch to cool down for 10 minutes before using it again.

16. Never touch, push, pull or straddle the winch cable while winching a load.

17.Never let the winch cable run through your hands, even if wearing heavy gloves.

18.Never release the clutch on the winch when the winch cable is under load.

19. Never use the winch for lifting or transporting people.

20. Never use the winch to hoist or suspend a vertical load.

21. Always inspect your winch and winch cable before each use.

22. Never winch the hook fully into the winch. This can cause damage to winch components.

23. Unplug the remote control from the vehicle when the winch is not in use to prevent inadvertent activation and use by unauthorized persons.

24.Never grease or oil the winch cable. This will cause the winch cable to collect debris that will shorten the life of the cable.

SHOCK LOADING

⚠ WARNING

Your winch cable is very strong but it is NOT designed for dynamic, or "shock" loading. Shock loading may tension a winch cable beyond its strength and cause the cable to break. The end of a broken winch cable under such high loading can cause SEVERE INJURY or DEATH to you and other bystanders.

Winch cables are designed to NOT absorb energy. This is true of both wire-rope and synthetic-rope winch cables.

1. Never attempt to "jerk" a load with the winch. For example, never take up slack in the winch cable by moving the winching vehicle in an attempt to move an object. This is a dangerous practice. It generates high winch cable loads that may exceed the strength of the cable. Even a slowly moving vehicle can create large shock loads in a winch cable.

⚠ WARNING

SEVERE INJURY or DEATH can result from a broken winch cable.

2. Never tow another vehicle or other object with your winch. Towing an object with a winch produces shock loading of the cable even when towing at slow speeds. Towing from a winch also positions the towing force high on the vehicle. This can cause instability of the vehicle and possibly lead to an accident.

3. Never use recovery straps with your winch. Recovery straps are designed to stretch and can store energy. This stored energy in the recovery strap is released if a winch cable fails making the event even more hazardous. Similarly, never use elastic "bungee" cords for winching.

4. Never use the winch to tie down a vehicle to a trailer or other transportation vehicle. This type of use also causes shock loading that can cause damage to the winch, winch cable, or vehicles used.

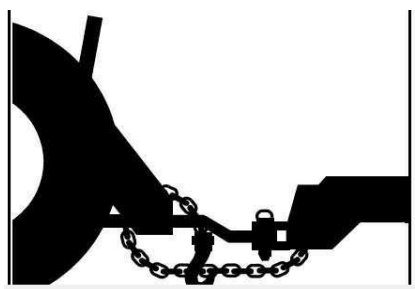
5. Some winch models use wire rope as the winch cable. Other winches use a specially designed synthetic rope as the winch cable.

6. Never replace a synthetic-rope winch cable with a consumer-grade polymer rope such as can be purchased in a hardware store. Although they may look similar, they are NOT alike. A polymer rope not designed for winch use will stretch and store excessive energy when winching.

Your winch cable is designed and tested to withstand the loads produced by the winch motor when operated from a stationary vehicle. Always remember that the winch and winch cable are NOT designed for shock loading.

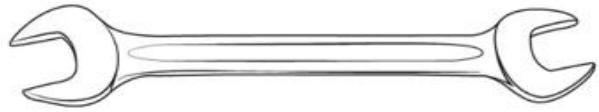
Use A Safety Chain

- A safety chain will help control drawn machinery should it separate from the tractor drawbar.
- Use a chain with the strength rating equal to or greater than the gross weight of the towed machinery.
- Attach the chain to the ATV/Tractor drawbar support or other specified anchor location. Allow only enough slack in the chain to permit turning.
- Do not use a safety chain for towing.



12. TOOLS

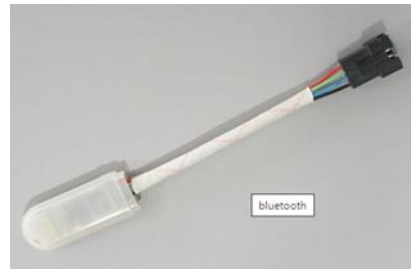
8-10 Open End Spanner



12-14 Open End Spanner

Hook Spanner for Motor Shaft

17 mm Wheel Spanner



Controller Bluetooth Module

13. SPECIFICATIONS

Dimensions & Capacities		
L X W X H	2300X1250X1420 mm	
Wheel Base	1285 mm	
Turn Radius	6500 mm	
Ground Clearance	250mm	
Battery capacity	11 kw	
Dry Weight	385kg	
Front Rack	20 kg	
Rear Rack	20kg	
Load Capacity (Combined Rider & Payload)	150 kg	
Tongue Weight	11 kg	
Tow Capacity	300 kg or 661 lbs on level ground	
Drive System		
Drive System	BLDC In-wheel motors	36 kW peak power
Front Tire	25×8-12	
Rear Tire	25×10-12	
Tire Pressure(front)	41 Kpa	6 PSI
Tire Pressure(rear)	41 Kpa	6 PSI
Brake System		
Front Brake	Hydraulic Disc brake	Front and rear unified
Rear Brake		
Operation	Hand and Foot	
Parking Brake	Hand	
Suspension		
Front	Macpherson strut	
Rear	Independent suspension(IRS)	
Front and Rear shock absorbers	Coil spring/oil damper	
Electrical Equipment		
Battery	87v 126AH	
Head light	12V LED	
Brake/ Tail Light	LED	
Front Flasher Light	LED	
Rear Flasher Light	LED	
Park Light	12V LED	

14. MAINTENANCE

CAUTION

· All service and Periodic maintenance is recommended to be performed by an authorized dealer.

- More often under severe use, such as dirty or wet conditions to purge water or dirt contamination from grease fittings and other critical components.

Periodic Maintenance Schedule

Careful periodic maintenance will help keep your vehicle in the safest, most reliable condition. Inspection, adjustment and lubrication intervals of important components are explained in the following chart on the following pages.

Maintenance intervals are based upon average riding conditions and an average vehicle speed of approximately 16 km per hour. Vehicles subjected to severe use, such as operation in wet or dusty areas, should be inspected and serviced more frequently.

Inspect, clean, lubricate, adjust or replace parts as necessary.

NOTE: Inspection may reveal the need for replacement parts. Always use genuine parts available from your dealer.

Service and adjustments are critical. If you are not familiar with safe service and adjustment procedures, have a qualified dealer perform these operations.

	Item	KMS/ HRS	When	Remarks
	Brake System	Pre-ride	Pre-ride	Please check brake caliper bolts
	Auxiliary Brake	Pre-ride	Pre-ride	Pre-ride inspection item
	Tires	Pre-ride	Pre-ride	Inspect daily, pre-ride inspection item
	Wheels	Pre-ride	Pre-ride	Pre-ride inspection item
	Frame nuts, bolts fasteners	Pre-ride	Pre-ride	Pre-ride inspection item
	Headlamp Inspection	Daily	Daily	Check operation daily; apply dielectric grease to connector when replaced
	Tail lamp inspection	Daily	Daily	Check operation daily; apply dielectric grease to socket when replaced
●	Motor servicing	5000 kms	12 months	Before opening the motor please contact the Dealer/ company. Open the motor only if the vehicle is used in Deepwater. Open the front case of the motors and clean the motor. Please re-seal as per instructions mentioned in manual.
●	Motor	500 kms	15 days	The motor shaft nuts have to be checked and tightened with a tool(Hook spanner)provided with the vehicle.

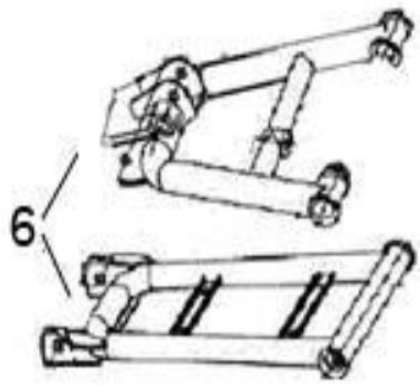
	Battery	500 kms	15 days	Check/clean Terminals; monitor the health of cells on BMS app, Connect to charger if the battery is below 50% or 87 volts.
D	Brake pad wear	1000 kms	Monthly	Inspect periodically
●	General Lubrication	50 hrs	3 months	Lubricate all fittings, pivots, cables, etc.

	Item	**Kms**	**When**	**Remarks**
●	Steering	2500 kms	6 months	Inspect daily, lubricate
●	Front Suspension	2500 kms	6 months	Inspect-lubricate, tighten fasteners
●	Rear Suspension	2500 kms	6 months	Inspect, tighten fasteners
	Brake fluid	5000 kms	12 months	Change every year
	Toe adjustment	As required	As required	Periodic inspection, adjust when parts are replaced
	Headlight Aim	As required	As required	Adjust if necessary

Lubrication Recommendations

	Item	**Lube Rec**	**Method**	**Frequency**
	Brake Fluid	DOT 3 or Dot 4 Only	Maintain level Between fill lines. See "7.CONTROL"	As require; change Every years or 5000 kms
	Front/Rear A-arm pivot Shaft	Grease	Locate fitting on pivot shaft and grease with grease gun	Every 3 months or 1000 kms

	Steering Post Bushings	Grease	Locate fitting on pivot shaft and grease with grease gun.	Every 3 months or 1000kms
	Front/Rear motor bearings	Grease	Inspect and replace bearings if necessary	Only if required
	Tie rods	Grease	Locate fittings and Grease	Semi-annually
	Ball joints	Inspect	Inspect and replace it if necessary	Semi-annually
	Swing Arm Bearing(on swing arm model)	Grease	Locate fittings and grease	Monthly or 500 kms



NOTE:

1. More often under severe use, such as wet or dusty conditions.
2. Grease: Light weight lithium-soap grease.
3. Grease M：molybdenum disulfide (MoS_2) grease (water resistant).
4. *When suspension action becomes stiff or after washing.

5. Hours are based on 10mph (16Km/h) average.

Periodic Maintenance Records

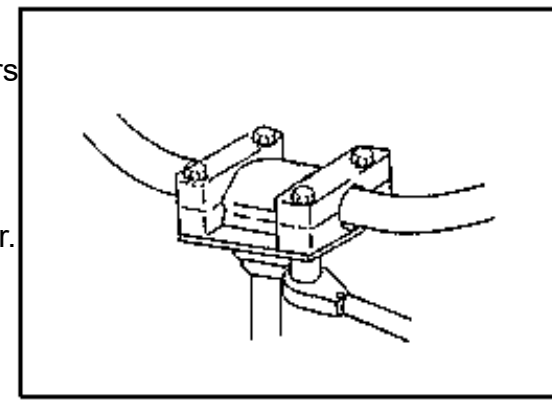
Use the following chart to record periodic maintenance work：

Maintenance Interval Performed since the date of purchase	**Servicing Date**	**Servicing Dealer or Person**	**Remarks**
3 Months / 750 Kms			
9 Months / 2000 Kms			
15 Months / 3500 Kms			
21Months / 5000 Kms			
27 Months / 6500 Kms			
33 Months / 8000 Kms			
39 Months / 9500 Kms			

WARNING

Improper adjustment of the handlebars or incorrect torque of the adjuster block tightening bolts can cause limited steering or loosening of the handlebars, resulting in loss of control and possible serious personal injury or death.

Handlebar Adjustment



Your ATV/Tractor has handlebars which can be adjusted for your personal fit.

1. Remove the handlebar cover.
2. Loosen the four bolts.
3. Adjust handlebar to desired height. Be sure handlebars do not hit gas tank or any other part of machine when turned fully to left or right.
4. Torque handlebar adjuster block to 10-12 ft.lbs(14-16Nm).

NOTE: Tighten bolts so there is an equal gap at the front and rear of the handlebar block. An improper gap will result in an improper fit of the upper pod.

The following items should be checked occasionally for tightness; or if they have been loosened for maintenance service.

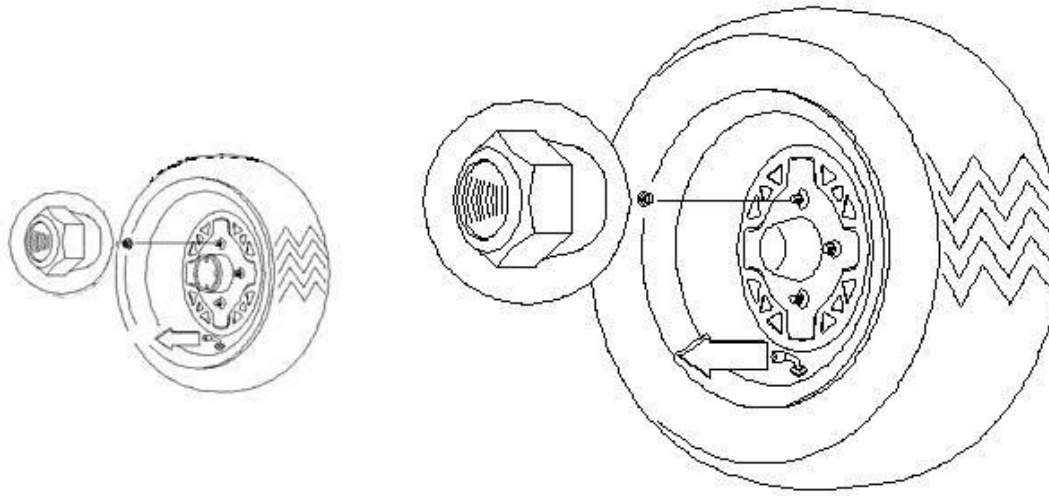
Wheel Nut Torque Specifications（On Independent Suspension model）

Bolt Size	Specification	
Front （ALUMINIUM WHEEL） M12X1.25	69Ft.Lbs	95N.m
Rear （ALUMINIUM WHEEL） M12X1.25	69Ft.Lbs	95N.m

NOTE: All nuts that have a cotter pin installed must be serviced by an authorized Dealer.

Motors to the hub Tightening

Motor shaft nut to be tightened for every service interval. Service work must be performed by an authorized dealer.



Tapered nuts: install with tapered side against wheel.

Steering Inspection

The steering assembly of the machine should be checked periodically for loose nuts and bolts. If loose nuts and bolts are found, have your dealer tighten them before riding your vehicle.

Camber and Caster

The camber and caster are non-adjustable.

WARNING

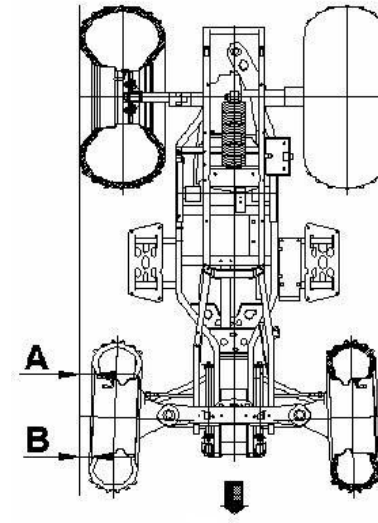
Do not attempt to adjust the tie rod for toe alignment. Severe injury or death can result from improper adjustment.

Contact your dealer. He/she has the training and tools to

Make these adjustments.

.

Toe Alignment Check



The recommended toe alignment is 1/8"to 1/4"(3to6mm) toe out.

1. Set the handlebars in a Straight ahead position and Hold them in this position.
2. Measure A and B,A minus B should be 1/16" to 1/8" (1.5 to 3mm).
3. If this measurement needs to be adjusted, contact your dealer for service.

Front Brake

WARNING

Once a bottle of brake fluid is opened, use what is necessary and discard the rest. Do not store or use a partial bottle of brake fluid. Brake fluid is hygroscopic, meaning it rapidly absorbs moisture from the air. This causes the boiling temperature of the brake fluid to drop, which can lead to early brake fade and the possibility of serious injury.

The front brake is hydraulic disc brakes which is depressing the foot pedal on the side of the right floorboard. These brakes are self-adjusting and require no adjustment.

The following checks are recommended to keep the brake system in good operating condition. How often they need checking depends upon the type of driving that has been done.

- Keep fluid level in the master cylinder reservoirs as described see "7.Control and part functions". Normal functioning of the diaphragm is to extend into the reservoir as fluid level drops. If the fluid level is low and the diaphragm is not extended, a leak is indicated and the

diaphragm should be replaced.

- Always fill the reservoir as indicated whenever the cover is loosened or removed to ensure proper diaphragm operation. Use DOT 3 brake fluid.
- Check the brake system for fluid leaks.
- Check brake lever for excessive travel or spongy feel.
- Check friction pads for wear, damage and loosened.
- Check security and surface condition of the disc.
- Pads should be changed when liner material is worn to 3/64"(1mm).(A)

Foot Brake

The foot brake is a hydraulic disc type brake which is activated by the foot pedal, which activates the brake system and is self-adjusting and requires no maintenance other than periodic checks of the pads for wear.

- Pads should be changed when the friction material is worn to 3/64"(1mm).
- Inspect the brake disc spline and pad wear surface for excessive wear.

Checking

Although the parking brake has been adjusted at the factory, the brake should be checked for proper operation.

1. When the vehicle is off, apply the parking brake lever and attempt to move the ATV/Tractor.
2. If the rear wheels are locked, it is adjusted properly.
3. If the wheels are not locked, it must be adjusted.

WARNING

Operating your ATV/Tractor with worn tires, improperly inflated tires, non-standard tires or improperly installed tires will affect vehicle handling which could cause an accident resulting in serious injury or death.

Follow the safeguards listed below to prevent this type of situation.

Important Safeguards

Maintain proper tire pressure according to charts below. Improper tire inflation may affect ATV/Tractor maneuverability.

Do not use improper tires. The use of non-standard size or type tires may affect ATV/Tractor handling.

Make certain the wheels are installed properly. If wheels are improperly installed it could affect vehicle handling and tire wear.

Wheel Removal Procedure

1. Stop the vehicle, place the transmission in gear and lock the parking brake.
2. Loosen the wheel nuts slightly.
3. Elevate the side of the vehicle by placing a suitable stand under the footrest frame.
4. Remove the wheel nuts and then remove the wheel.

Tire Pressure	
Front	Rear
6 PSI	6 PSI

Wheel Installation

1. With the parking brake locked, place the wheel in the correct position on the wheel hub. Be sure the valve stem is toward the outside and rotation arrows on the tire point toward forward rotation.
2. Attach the wheel nuts and finger

tighten them.

3. Lower the vehicle to the ground.
4. Securely tighten the wheel nuts

according to the chart found in

"**16.MAINTENANCE/Wheel Nut Torque**".

Tire Inspection

When replacing a tire always use original equipment size and type.

Tire Tread Depth

Always replace tires when tread depth is worn to 1/8" (3mm) (1) or less. Please refer to your Owner's Manual for tire specifications.

WARNING

If the vehicle stopped for a long time, turn off the high and low light.

WARNING

Keep your headlights and taillights clean. Poor light while riding can result in an accident causing severe injury or death.

Headlamp/ Front indicator Replacement

1. The LED head light and the front indicator of Powerland Tachyon 4X4 come as a single assembly unit. If there is any damage or light malfunctioning, it requires replacement of the full assembly unit.
2. To replace it, first disconnect the headlight socket from the wiring harness.
3. Use a star bit screwdriver to remove the headlight assembly mounting bolts from the front fender.
4. Replace the old headlamp assembly with the new one.

Taillight /Brake light/ Rear Indicator Replacement

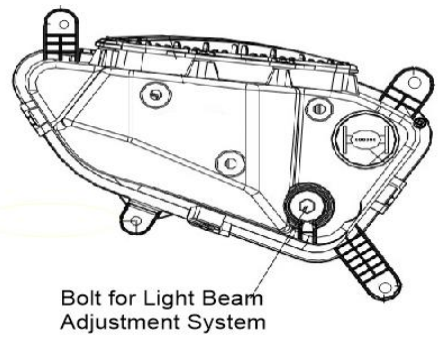
1. The LED taillight and the rear indicator of Powerland Tachyon 4X4 come as a single assembly unit. If there is any damage or light malfunctioning, it requires replacement of the full assembly unit.

2. To replace it, first disconnect the tail light socket from the wiring harness.
3. Use a star bit screwdriver to remove the taillight assembly mounting bolts from the rear fender.
4. Replace the old tail light assembly with the new one.

High beam Headlight Adjustment

The High beam headlight can be adjusted up and down.

1. Place the vehicle on a level surface with the headlight approximately 10''(3m) from a wall.
2. Measure the distance from the floor to the center of the headlight and make a mark on the wall at the same height.



3. Turn the headlight switch to high beam.
4. Observe headlight aim. The most intense part of the headlight beam should be aimed 2.8'' (71mm) below the mark placed on the wall in step 2. **NOTE:** Riding weight must be included on the seat.
5. To turn the two adjusting bolt ① clockwise is to lower the beam area and to turn the two adjusting bolt ① counterclockwise is to heighten the beam.

Cleaning Your ATV/Tractor

Keeping your ATV/Tractor clean will extend the life of various components.

Washing

Never use a high-pressure type car wash system, it can damage the Electrical parts, body panels, brakes and warning labels, and water might enter the motor or battery system.

The best and safest way to clean your ATV/Tractor is with a garden hose and a pail of mild soap and water. Use a professional type washing mitten, cleaning the upper body first and lower parts last. Rinse with water frequently and dry with a chamois to prevent water spots. **NOTE:** If warning labels are damaged, contact your dealer for replacement.

Waring

Your ATV/Tractor can be waxed with any non-abrasive automotive paste wax. Avoid the use of harsh cleaners since they can scratch or damage the body finish.

CAUTION

- Certain products, including insect repellants and chemicals, will damage plastic surfaces. Care must be taken when using these plastic surfaces.

Storage Tips

CAUTION

Do not drive the vehicle directly when kept idle for a long time. Check for the battery status and all the drive modes working properly.

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Cleaning- Clean the ATV/Tractor thoroughly.

Battery Maintenance- Do a full charge and discharge once a week to

have optimum efficiency of the battery pack. Do not exceed the charging hour limit. Keep inspecting the BMS data through the Bluetooth app.

Storage Area/Covers- Set tire pressure and safely support the ATV/Tractor with the tires 1-2"(25-50mm) off the ground. Be sure the storage area is well ventilated. Cover the machine with an ATV/Tractor cover.

NOTE: Do not use plastic or coated materials. They do not allow enough ventilation to prevent condensation, and may promote corrosion and oxidation.

STORAGE AND TRANSPORTATION:

When transporting or not using ATV/Tractor for more than 15 days, it is important to take specific measures to ensure proper storage and maintenance.

1. Turn off the vehicle and remove the key.
2. Turn the Battery power switch off. Please refer to the battery doc.
3. Always secure the frame of the ATV/Tractor to the transporting vehicle using suitable straps or ropes.
4. Always place the gear switch in N (Neutral) mode and lock the parking brake.


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