



**MASSIMO**  
**MOTOR**



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# MSU 850-5

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Owner's Manual

## **WARNING!**

- Operation of this UTV by children under the age of 16 Increase of the risk of severe injury or death.
- An adult supervision required always.
- Never permit children under age 16 to operate this UTV.
- Overloading can adversely affect vehicle handling.
- Operator use only, passengers prohibited.
- This vehicle is designed and manufactured for OFF-ROAD use only.
- Driving on public streets, roads or highways is illegal.
- Always wear helmet and other protective equipment.
- Do not operate this vehicle after consuming Alcohol or Drugs.
- Gasoline is flammable, when refueling. Please shut off engine to avoid sparks and open flame.
- Read owner's manual carefully before riding. Keep owner's manual with vehicle.
- Operator and passengers must fasten the seat belt, passengers should hold the armrest with your right hand, please keep your body inside the machines.

# FOREWORD

Dear Customer:

Congratulations and thank you for your purchase our All-Terrain Vehicle (UTV). It was designed and built to provide you with a superior ride, comfort, reliability, utility and safety.

Your UTV was designed as a recreational UTV, for off-road use by one rider only.

This Operator's Manual is furnished to familiarize the operator of all proper operating procedures. It also includes information about the general care and maintenance of your UTV.

Most importantly, carefully read the following pages regarding safety warnings and active riding skills, and precautions. Children and adults differ in skills, physical abilities, and judgment. Some children may not be able to operate an UTV safely. Parents should always supervise their child's use of the UTV at all times. Parents should permit continued use of the UTV, only if they have determined that the child has the ability to operate the UTV, safely and responsibly.

All of the information in this manual is based on the latest product data and

specifications available at the time of printing, the manufacturers of UTV's reserve the right to make product changes and improvements, which may effect the illustrations or explanations without notice.

If you have any other questions regarding our UTV's operation or maintenance, any authorized dealer can readily answer them.

Enjoy your UTV. And, if you respect your UTV, respect the environment, the local and state laws, and act responsibly. You will gain the respect of others.

※Product and specifications are subject to change without notice.

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## **PAY ATTENTION TO YOUR SAFETY**

This section presents some of the most important information and recommendations to help you ride your UTV safely. Please take a few moments to read these pages. This section also includes information about the location of safety labels on your UTV.

### **Important safety information**

Your UTV can provide many years of service and pleasure-if you take responsibility for your own safety and understand the challenges you can meet while riding.

There is much that you can do to protect yourself when you ride. You'll find many helpful recommendations throughout this manual. The following are a few that we consider most important.

### **Follow the age recommendation**

The minimum recommended age of this UTV model is 16. Children under age 16 should never operate this vehicle.

## **Always wear a helmet**

It's a proven fact: helmets significantly reduce the number and severity of head injuries. So always wear an approved motorcycle helmet.

Protection, sturdy boots, gloves, and other protective gear.

## **Ride off-road only**

Your UTV is designed and manufactured for off-road use only. The tires are not made for pavement, and the UTV does not have turn signals and other features required for use on public roads. If you need to cross a paved or public road, get off and walk your UTV across.

## **Take time to learn & practice**

Even if you have ridden other UTVs, take time to become familiar with your skills and get accustomed to the UTV's size and weight.

Because many accidents involve inexperienced or untrained riders, we urge all riders to take

a training course approved by the UTV safety institute.

Contact an authorized UTV dealer to find out about the training courses nearest you.



## **Be alert for off-road hazards**

The terrain can present a variety of challenges when you ride off-road. Continually “read” the terrain for unexpected turns, drop-offs, rocks, ruts, and other hazards. Always keep your speed low enough to allow time to see and react to hazards.

## **Ride within your limits**

Pushing limits is another major cause of UTV accidents. Never ride beyond your personal abilities or faster than conditions warrant.

Remember that alcohol, drugs, fatigue, and inattention can significantly reduce your ability to make good judgments and ride safely.

## **Don't drink and ride**

Alcohol and riding don't mix. Even one drink can reduce your ability to respond to changing conditions, and your reaction time gets worse with every additional drink. So don't drink and ride, and don't let your friends drink and ride either.

## **Keep your UTV in safe condition**

It's important to keep your UTV properly maintained and in safe riding condition. Having a breakdown can be difficult, especially if you are stranded off-road far from your base. To help avoid problems, inspect your UTV before every ride and perform all recommended maintenance.

Your UTV comes with a hangtag and several labels containing important safety information. Anyone who rides the vehicle should read and understand this information before riding.

The labels should be considered permanent parts of the vehicle. If a label comes off or becomes hard to read, contact your dealer for replacements.

## **GUIDELINES ON SAFE DRIVING**

1. when approaching corners or bends to reduce speed. Upon the completion of turn, may gradually increase the speed.
2. when crossing the vehicles parked in front of, to be very careful. Because the driver of the vehicle may be invisible to you and the door opened, the forward block in your way.
3. Brake Lining may Motorcycle rinsing wetting lose their role, so when cleaning End after walking ago, should check all brake system.

# INTRODUCTION

Congratulations on your purchase of the UTV. It represents the result of many years of experience in the production of fine sporting, touring, and pace-setting racing vehicles. With the purchase of this, you can now appreciate the high degree of craftsmanship and reliability that have made a leader in these fields.

This manual will provide you with a good basic understanding of the features and operation of this vehicle. It also includes basic maintenance and inspection procedures. If you have any questions regarding the operation or maintenance of your vehicle, please consult an dealer.

## **! WARNING**

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**Please read this manual carefully before operating this vehicle. Do not attempt to operate this vehicle until you have attained adequate knowledge of its controls and operating features. Regular inspections and careful maintenance, along with good operating techniques, will help ensure that you safely enjoy the capabilities and reliability of this vehicle.**

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# IMPORTANT MANUAL INFORMATION

FAILURE TO FOLLOW THE WARNINGS CONTAINED IN THIS MANUAL CAN RESULT IN SERIOUS INJURY OR DEATH.

Particularly important information is distinguished in this manual by the following notations:

**! WARNING:** The Safety Alert Symbol means ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

**! WARNING:** Failure to follow WARNING instructions could result in severe injury or death to the vehicle operator, a bystander or a person inspecting or repairing the vehicle.

**CAUTION:** A CAUTION indicates special precautions that must be taken to avoid damage to the vehicle.

**NOTE:** A NOTE provides key information to make procedures easier or

\* Product and specifications are subject to change without notice.

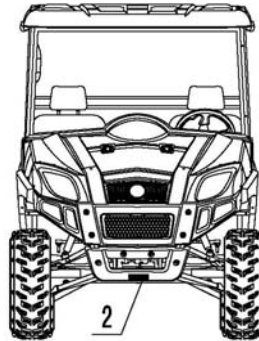
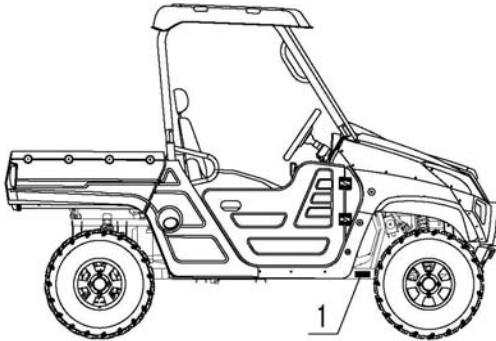
## **IMPORTANT NOTICE**

- . This vehicle is designed and manufactured for off-road use only. It is illegal to operate this vehicle on any public street, road, or highway. Such use is prohibited by law.
- . Check the laws and regulations in force before choosing where to operate this vehicle. It is illegal to operate this vehicle on public lands where vehicles its size are prohibited.
- . This vehicle complies with almost all state off-highway noise level and spark arrester laws and regulations.

## **HOW TO IDENTIFY YOUR UTV**

The main components of your vehicle(engine and frame) are identified by different serial numbers. It may sometimes become necessary to locate these numbers for warranty purposes or to trace your vehicle in the event of loss. These numbers are required by the authorized UTV dealer to complete warranty claims properly. No warranty will be allowed by if the engine identification number(EIN) or vehicle identification number(VIN) is removed or mutilated in any way. We strongly recommend that you take note of all the serial number on you vehicle and supply them to your insurance company.

# Engine and Vehicle Identification Number Location



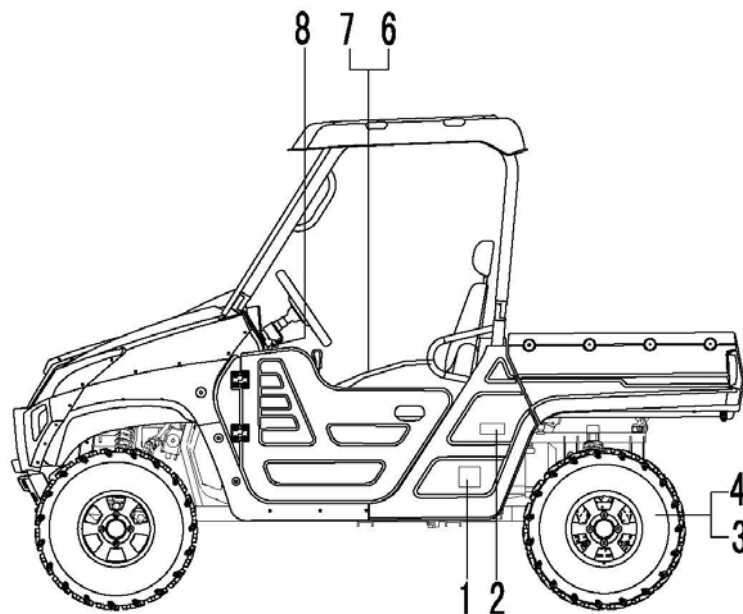
## TYPICAL

- 1.EIN(Engine Identification Number on left side/under of the crankcase)
- 2.VIN(Vehicle Identification Number on right side/under of the frame )
- 3.ENGINE NUMBER



# LOCATION OF THE WARNING AND SPECIFICATION

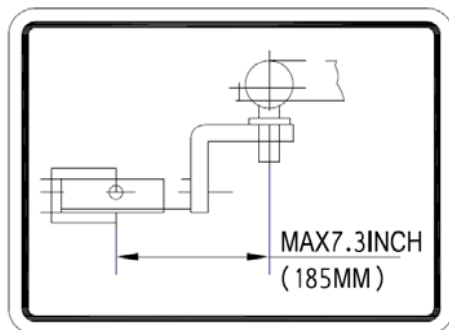
## LABELS



Read and understand all of the labels on you vehicle. They contain important information for safe and proper operation of your vehicle.  
Never remove any labels from your vehicle. If a label becomes difficult to read or comes off, a replacement label is available from your dealer.



(1)



(3)



## WARNING

IMPROPER TIRE PRESSURE OR OVERLOADING  
CAN CAUSE LOSS OF CONTROL.

LOSS OF CONTROL CAN RESULT IN SEVERE  
INJURY OR DEATH.

OPERATING TIRE PRESSURE: Set with tires cold.  
RECOMMENDED:

FRONT: 50kPa (0.5 bar ), 7.3psi

REAR : 50kPa (0.5 bar ), 7.3psi

MINIMUM:

FRONT: 45kPa (0.45bar ), 6.5psi

REAR : 45kPa (0.45bar ), 6.5psi

Never set tire pressure below minimum. Tire may  
dislodge from rim.

Gross Vehicle Weight Rating : 876 kg (1931 lb)  
maximum including weight of operator, passenger,  
accessories,cargo, and (if applicable)trailer tongue  
weight.

(2)



## WARNING

Improperly loading a trailer  
and failure to use extra care  
when pulling trailer can cause  
an accident or injury , Never  
load more than 50kg(110lbs)  
tongue weight on the towing  
bracket. Do not tow more than  
500kg(1101 lbs)rolling weight  
(trailer plus cargo).Operate in  
low - range gears only, allow  
for increased braking distance,  
and use extreme caution  
when operating on inclines.  
Read carefully the loading  
information and trailer hitch  
sections in the owner's manual

(4)

 **WARNING**

Severe INJURY or DEATH can result if you ignore the following:

- Maximum Load in Cargo Bed:150kg (330lb).
- Never carry passengers in cargo bed.
- Cargo can affect handling and stability. Read Owner's Manual before loading or towing.
- When loading with cargo or towing a trailer:Reduce speed and allow more room to stop . Avoid hills and rough terrain.
- Be sure cargo is secured—a loose load could change handling unexpectedly.
- Keep weight in the cargo bed centered, and as low and far forward as possible. Top-heavy loads increase the risk of overturn.

(5)

 **WARNING**

Please fasten the seat belt before driving

(6)

 **WARNING**

- Improper use can result engine damage.
- Before change gear, you must stop the UTV.
- First step on the brake pedal, then press the change gear handle.

(7)



## WARNING

Improper use can result in Severe INJURY or DEATH.

This off-highway utility vehicle will handle and maneuver differently from an ordinary passenger car or other vehicle.

- vehicle capacity: 1 operator and 1 passenger. Passenger must be able to reach and hold the handgrip inside enclosure.
- This vehicle is recommended only for operators 16 and older with a valid motor vehicle license. Adults must supervise use by minors. Check state laws for minimum age requirements.
- Gross Vehicle Weight Rating: 1931lb ( 876kg ) maximum including operator, passenger, accessories, cargo and trailer tongue weight.
- Passenger and cargo can affect vehicle handling.

### ALWAYS

- wear a seat belt when riding in the vehicle.
- keep your hands and feet inside the vehicle at all times—watch for branches, brush, or other hazards that could enter the vehicle.
- drive straight up and down inclines—driving across the side of an incline increases the risk of overturn.

### NEVER

- operate through water deeper than 13" ( 33 cm ) or fast flowing water – if you must cross shallow, slow moving water, choose your path carefully to avoid sharp dropoffs, large rocks, or slippery surfaces that could cause the vehicle to overturn.
- make sharp, high-speed turns—the vehicle could roll over or go out of control.



ALWAYS USE AN APPROVED HELMET GEAR



NEVER USE ON PUBLIC ROADS OR PAVEMENT



NEVER USE WITH DRUGS OR ALCOHOL

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

( 8 )

# SAFETY INFORMATION

This off-highway utility vehicle handles differently from other vehicles including cars and UTVs.

SEVERE 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.
- This vehicle is designed to carry the driver and one passenger. Never carry passengers in the cargo bed.
- Always be sure the driver and passenger are wearing seat belts.
- Never give a ride to a passenger who is too small to reach and hold the handgrip on the enclosure.
- Always avoid operating the vehicle on any paved surfaces, including sidewalks, driveways, parking lots, and streets.
- Never operate this vehicle on any public street, road, or highway, even a dirt or gravel one.
- Never operate this vehicle without wearing an approved motorcycle helmet that fits

properly. You should also wear eye protection (goggles or a face shield), gloves, over-the-ankle boots, long-sleeved shirt or jacket, and long pants.

- . Never consume alcohol or drugs before or while operating this vehicle.
- . Never operate at speeds too fast for your skills or the conditions. Always go at a speed that is proper for the terrain, visibility, operating conditions, and your experience.
- . Never attempt jumps or other stunts.
- . Always inspect your vehicle each time you use it to be sure it is in safe operating condition. Always follow the inspection and maintenance procedures and schedules described in this manual.
- . Always keep both hands, arms, feet, and legs inside the vehicle at all times during operation. Keep your feet on the floorboard. Never hold onto the enclosure except when using the handgrip inside the enclosure. Otherwise, your hand could be injured if it is caught between the enclosure and an obstacle outside the vehicle.
- . Always keep both hands on the steering wheel when driving.
- . Never wrap your thumbs and fingers around the steering wheel. This is particularly important when driving in rough terrain. The front wheels will move right and left as they respond to the terrain, and this movement will be felt in the steering wheel. A

- sudden jolt could wrench the steering wheel around, and your thumbs or fingers could be injured if they are in the way of the steering wheel spokes.
- . Always go slowly and be extra careful when operating on unfamiliar terrain. Always be alert to changing terrain conditions when driving the vehicle.
  - . Never operate on excessively rough, slippery, or loose terrain until you have learned and practiced the skills necessary to control the vehicle on such terrain. Always be especially cautious on these kinds of terrain.
  - . Never turn at excessive speed. Practice turning at slow speeds before attempting to turn at faster speeds. Do not attempt turns on steep inclines.
  - . Never operate the vehicle on hills that are too steep for it or for your abilities. Go straight up and down hills where possible. Maximum slope angle: 15°
  - . Never operate on hills that are slippery or ones where you will not be able to see far enough ahead of you. Never go over the top of a hill at speed if you cannot see what is on the other side.
  - . Always follow proper procedures for going uphill. If you lose momentum and cannot continue up a hill, back down the hill with the engine in reverse gear. Use engine braking to help you go slowly. If necessary, use the brakes gradually to help you go slowly.



- . Always check terrain carefully before going down hills. Go as slowly as possible. Never go down a hill at high speed.
- . Always check for obstacles before operating in a new area.
- . Never operate the vehicle in fast flowing water or water deeper than the floorboards on this model . Remember that wet brakes may have reduced stopping ability. Test your brakes after leaving water. If necessary, apply them several times to let friction dry out the linings.
- . 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. Do not brake abruptly when carrying loads in the cargo bed.
- . Always use the size and type of tires specified in this manual.
- . Always maintain proper tire pressure as described in this manual.
- . Never exceed the stated load capacity. Cargo should be as far forward in the bed as possible, and distributed evenly from side to side. Be sure cargo is secured so that it cannot move around during operation. Reduce speed and follow instructions in this manual for carrying cargo or pulling a trailer. Allow greater distance for braking.

## **! WARNING**

### **POTENTIAL HAZARD**

Improper handling of gasoline.

#### **WHAT CAN HAPPEN**

Gasoline can catch fire and you could be burned.

#### **HOW TO AVOID THE HAZARD**

Always turn off the engine when refueling. Do not refuel right after the engine has been running and is still very hot. Do not spill gasoline on the engine or exhaust pipe/muffler when refueling. Never refuel while smoking, or while in the vicinity of sparks, open flames, and clothes dryers. When transporting the vehicle in another vehicle, be sure it is kept in an

upright position. or other sources of ignition such as the pilot lights of water heaters Otherwise, fuel may leak out of the fuel tank.

#### **WHAT CAN HAPPEN**

Gasoline is poisonous and can cause injuries.

#### **HOW TO AVOID THE HAZARD**

If you should swallow some gasoline or inhale a lot of gasoline vapor, or get some gasoline in your eyes, see your doctor immediately. If gasoline spills on your skin, wash with soap and water. If gasoline spills on your clothing, change your clothes.

## **! WARNING**

### **POTENTIAL HAZARD**

Starting or running the engine in a closed area.

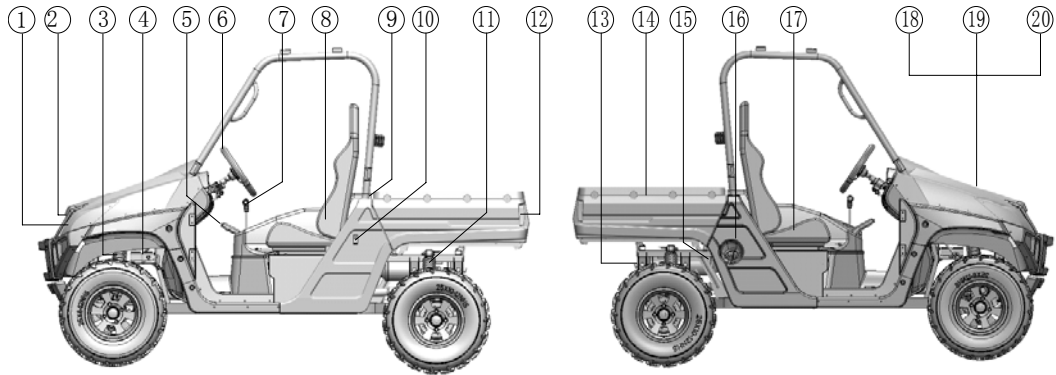
### **WHAT CAN HAPPEN**

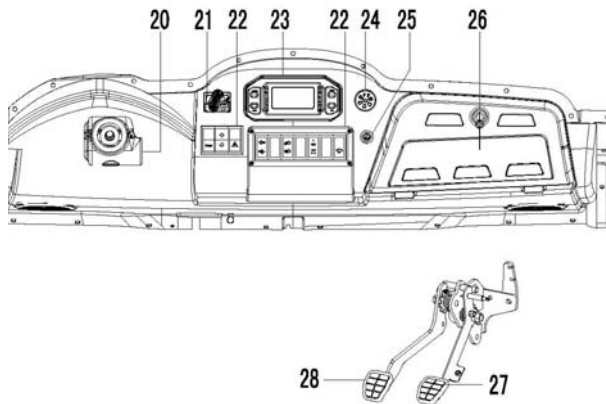
Exhaust fumes are poisonous and may cause loss of consciousness and death within a short time.

### **HOW TO AVOID THE HAZARD**

Always operate your vehicle in an area with adequate ventilation.

# DESCRIPTION AND VEHICLE IDENTIFICATION





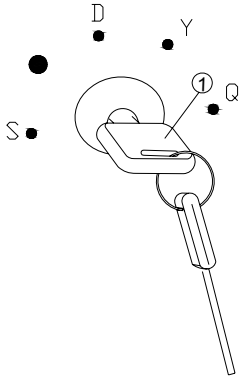
**NOTE:**

The vehicle you have purchased may differ slightly from those shown in the figures of this manual

1. Headlights
2. Maintenance window cover lock
3. Front shock absorber assembly adjusting ring
4. Brake fluid reservoir
5. Parking brake lever
6. Steering wheel
7. Drive select lever
8. Driver seat
9. Air filter element (engine and air intake duct)
10. Cargo bed push rod switch
11. Rear shock absorber assembly adjusting ring
12. Tail/brake lights
13. Engine exhaust pipe
14. Cargo bed
15. Cargo bed push rod
16. Refueling mouth
17. Passenger seat
18. Fuses
19. Compensation water kettle
20. Batter
21. 2WD-4WD switch
22. Switch combination
23. Indicators & Display
24. MP3 switch
25. Auxiliary DC jack(Cigarette lighter)
26. Glove compartment lock
27. Accelerator pedal
28. Brake pedal

# CONTROL FUNCTIONS

## Mains switch



Functions of the respective switch positions are as follows:

S:

All electrical circuits are switched off.  
The key can be removed in this position.

D:

All electrical circuits are switched off

Y:

All electrical circuits are supplied with power, and the headlights and taillights come on when the light switch is on.

Q:

The electric starter is engaged by turning and holding the key in this position. Release the key when the engine starts.

## CAUTION

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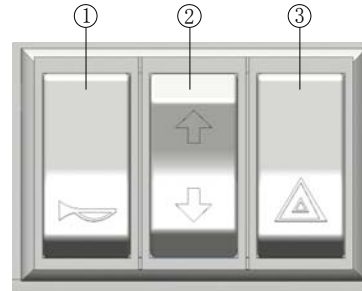
**.Do not operate the electric starter continuously for more than 5 seconds, or starter damage could occur. Wait at least 5 seconds between each operation of the electric starter to let it cool.**

**.Do not turn the key to the “Q” position with the engine running, or damage to the electric starter can result.**

**.see starting instructions prior to starting the engine.**

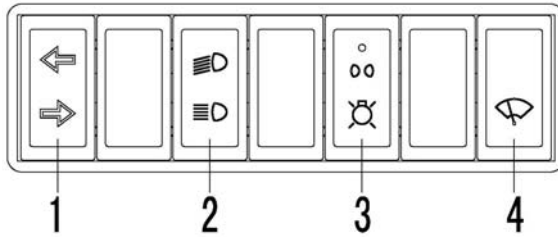
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## Switches combination



1. Horn switch
2. Winch switch  
↑ Release wire rope  
↓ Contraction wire rope
3. Dangerous warning lights switch

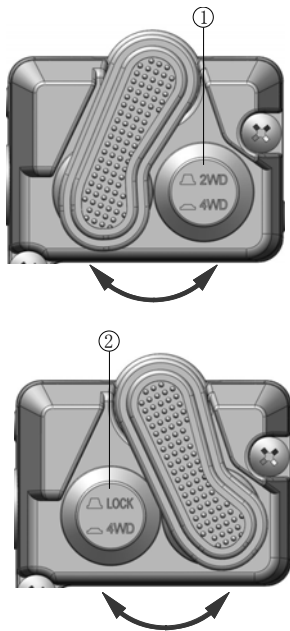
## Switches combination



1. Direction indicator
2. Headlamp Switch
3. Lighting Switch
4. Wiper Switch



## On-Command four-wheel drive and differential gear lock switches



1. On-Command four-wheel-drive switch  
“2WD”/“4WD”

2WD—Pop-up the button

4WD—push the button

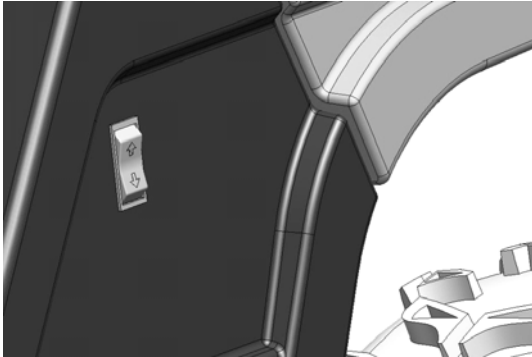
2. On-Command differential gear lock switch  
“4WD”/“LOCK”

4WD—push the button

LOCK—Pop-up the button

This vehicle is equipped with an On-Command four-wheel-drive switch “2WD”/“4WD” and a differential gear lock switch “4WD”/“LOCK”. Select the appropriate drive according to terrain and conditions.

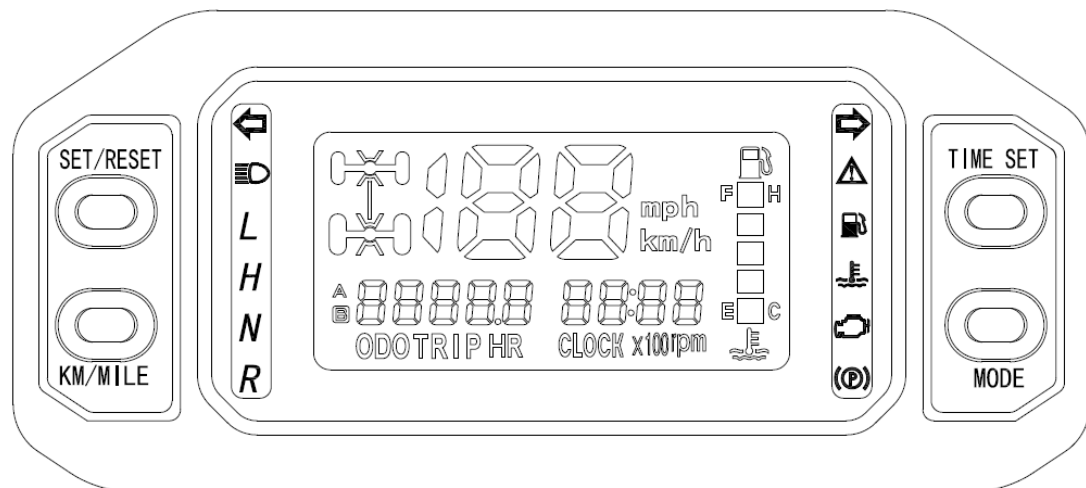
## Electric plunger switch of cargo box



1、 The switch is automatic, hold the switch upward, the cargo box will be up, stop the holding, the cargo box will be stopped.

2、 hold the switch downward, the cargo box will be down, stop the holding, the cargo box will be stopped.

# Indicators & Display



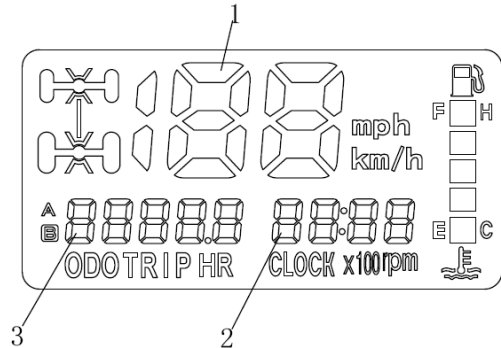
## Odometer

When selected, the odometer registers total distance traveled in miles while the ignition is ON A. To change the display from trip meter to odometer, press and release the Odometer/Trip meter select button .

### Functions switch:

Press the button of “ Mode “, the mode of “ODO, TRIP A, TRIP B, HRA and HRB will display in the odograph and be switched between, the figure of speed will display and update synchronous while switching between “KM/H and MPH” in unit of pedometer. Press the button of “Time Set “, the user can set the hour and minute. Then adjust hours or minute by ascending or descending

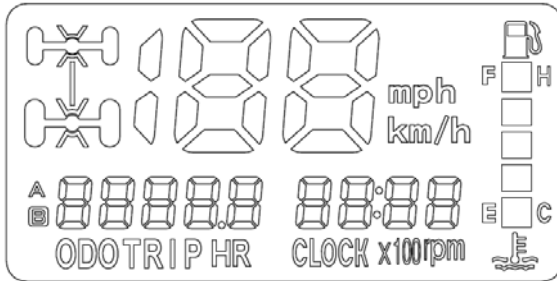
by continuing press button of mode of “ Set/Reset” ,user can clean the record to zero for particular period of working mileage and time by pressing the mode of “Set/Reset “ while showing mode of “TRIP A and HRA” in the speedometer .



- 1、 Speed meter
- 2、 Time/Engine speed
- 3、 Trip meter

## Km/h & mph mode change

Press the MODE button, choose either Km/h or mph needed.



## Other indicator light

1、Coolant temperature indicator light



It indicates the temperature of coolant, If

the temperature is above 102°C, stop engine immediately. Check coolant lever and add if low, see authorized dealer if temperature indicator stay on and overflow tank is full of coolant.

2、quantity of fuel indicator light



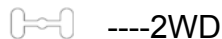
When the last segment clears, a low fuel warning is activated, the fuel gauge will blink, refuel immediately, otherwise the vehicle will be stopped and can not start again.

### 3、 Check engine indicator lamp “ ”

After turning the ignition switch on, the lamp shall be on, and the lamp shall be off after starting the engine. If the lamp is on while the engine working, it indicates that the system failed.

When some electric jet parts are found fault, check engine indicator lamp will also be ON, the vehicle still can keep running, the driving performance is getting worse, which reminds the driver should send the vehicle to repair.

### 4、 2WD/4WD indicator



----2WD



----4WD



----4WD/LOCK

## 5、 Gear Indicator


L---- Low Gear

H---- High Gear

N---- Neutral

R---- Reverse Gear

## 6、 Direction Indicator


 ---- Turn Left

 ---- Turn Right

## 7、 Parking Indicator

**(P)** Means the vehicle is in the parking, before start driving, remind the **(P)** driver to release the park brake and move the lever downward, then start driving.

## 8、 Headlight Indicator

 Means headlight is in the working.

## Auxiliary DC jack(Cigarette lighter)

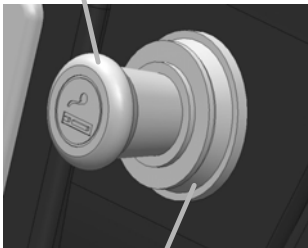
The auxiliary DC jack is located at the right side of the front panel.

The auxiliary DC jack can be used for suitable work lights, radios, etc.

The auxiliary DC jack should only be used when the engine is running.

1. Set the light switch to “OFF”.
2. Start the engine.

Cigarette lighter



Auxiliary DC jack

3. Pull out the cigarette lighter, and then insert the accessory power plug into the jack.
4. When the auxiliary DC jack is not being used, put back the Cigarette lighter.

Maximum rated capacity for the auxiliary DC jack: DC 12V, 120W (10A)

### **CAUTION:**

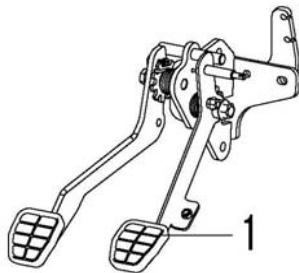
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- **Do not use accessories requiring more than the above maximum capacity. This may overload the circuit and cause the fuse to blow.**
  - **If accessories are used without the engine running or with the headlights turned on, the battery will lose its charge and engine starting may become difficult.**
-



## Accelerator pedal

Press the accelerator pedal down to increase engine speed. Spring pressure returns the pedal to the rest position when released. Ways check that the accelerator pedal returns normally before starting the engine



1. Accelerator pedal

Before starting the engine, check the accelerator pedal to be sure it is operating smoothly. Make sure the accelerator pedal fully returns to the idle position as soon as it is released.

### **! WARNING**

#### **POTENTIAL HAZARD**

Malfunction of the accelerator pedal.

#### **WHAT CAN HAPPEN**

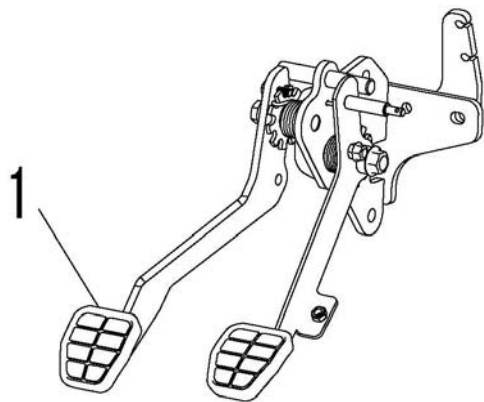
The accelerator pedal could be hard to operate, making it difficult to speed up or slow down then you need to. This could cause an accident.

#### **HOW TO AVOID THE HAZARD**

Check the operation of the accelerator pedal before you start the engine. If it does not work smoothly, check for the cause. Correct the problem before operating the vehicle. Consult an dealer if you can't find or solve the problem yourself.

# Brake pedal

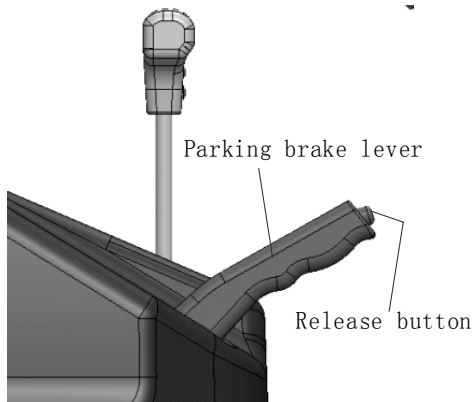
Press the brake pedal to slow or stop the vehicle.



1. Brake pedal

## Parking brake lever

Pull the parking lever up so that the unit can engage park brake. To release the unit, press button in the front end of parking lever, then push the parking lever to the bottom



### **Parking brake lever**

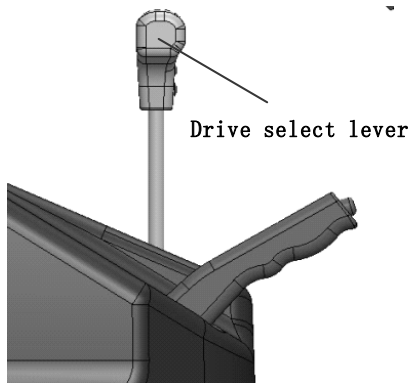
Pull the parking lever up so that the unit can engage park brake. To release the unit, press button in the front end of parking lever, then push the parking lever to the bottom.

### **CAUTION**

---

- Never use parking brake lever then the vehicle don't stop fully.
  - Adjust the parking cable if necessary.
  - Be sure to fully release the parking brake lever before starting the vehicle.
-

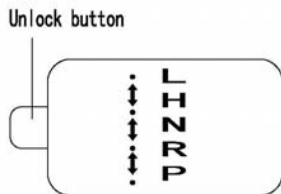
## Drive select lever



The drive select lever is used to shift your vehicle the L—H—N—R—P and reverse positions.

### CAUTION

- Never start the vehicle at N or R lever.
- Stop the vehicle fully when shifting to reverse.

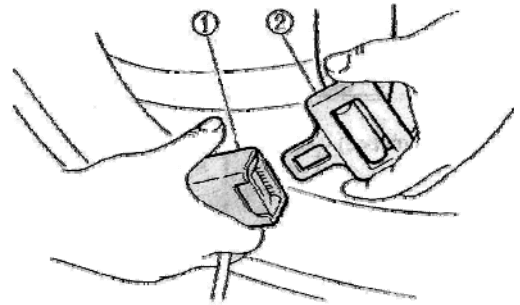


## Seat belts

This vehicle is equipped with three-point seat belts for both the operator and passenger. Always wear the seat belt while riding in the vehicle

To wear the seat belt properly, do the following:

1. Hold the latch plate as you pull the belt across your lap and chest. Make sure the belt is not twisted and is not caught on any portion of the vehicle, your clothing, or any equipment you are carrying.
2. Push the latch plate into the buckle until it clicks. Pull up on the latch plate to make sure it is secure



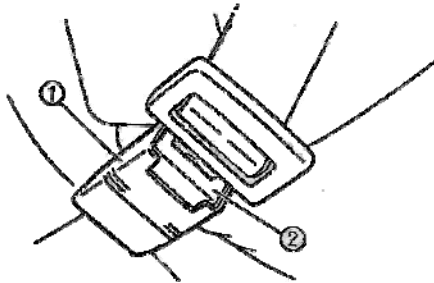
1. Buckle

2. Latch plate

3. Put the lap portion of the belt low on your hips. Push down on the buckle end of the belt as you pull up on the shoulder part so the belt is snug across your hips
4. Position the shoulder belt over your shoulder and across your chest. The shoulder belt should fit against your chest. If it is loose, pull the belt out all

the way and then let it retract.

5. To release the buckle, firmly press the release button



1. Buckle

2. Release button

## **! WARNING**

### **POTENTIAL HAZARD**

**Not wearing the seat belt.**

**Wearing the seat belt improperly.**

### **WHAT CAN HAPPEN**

**There is increased risk of being killed or seriously injured in an accident.**

### **HOW TO AVOID THE HAZARD**

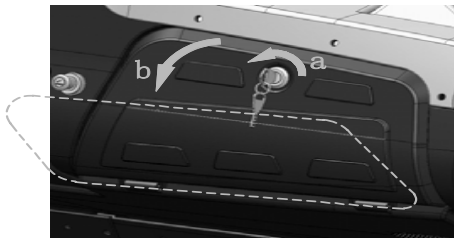
**Always wear your seat belt when riding in the vehicle.**

**Be sure the seat belt is close-fitting across your hips and chest and is latched securely.**

## Glove compartment

### **CAUTION:**

To protect from damage, do not put metal products, like tools or sharply edged products directly in the glove compartment. If they must be stored, wrap them in appropriate cushion material.

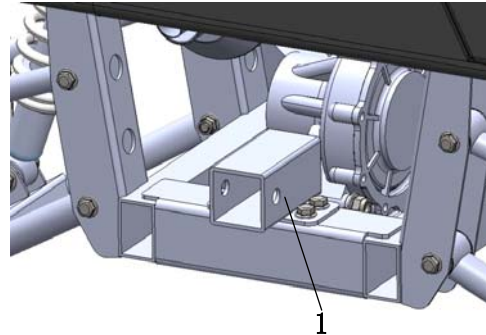


a. Unlock

b. Open

## Trailer hitch bracket

This vehicle is equipped with a 5cm (2in) receiver bracket for a standard trailer hitch. Trailer towing equipment can be obtained at an dealer.



1. Trailer hitch bracket

## ARE YOU READY TO DRIVE

Before each drive, you need to make sure you and your UTV are both ready to drive. To help get you prepared, this section discusses how to evaluate your driving readiness, what items you should check on your UTV, and adjustments to make for your comfort, convenience, or safety.

### **Protective apparel**

For your safety, we strongly recommend that you always wear an approved motorcycle helmet, eye protection, boots, gloves, long pants, and long-sleeved shirt or jacket whenever

you drive. Although complete protection is not possible, wearing proper gear can reduce the chance of injury then you drive. The following suggestions will help you choose the proper driving gear.

### **Helmets and eyes protection**

Your helmet is your most important piece of driving gear because it offers the best protection against head injuries. A helmet should fit your head comfortably and securely.

An open-face helmet offers some protection, but a full-face helmet offers more. Regardless of the style, look for a DOT(Department of Transportation) sticker in any helmet you buy. Always wear a face shield or goggles to protect your eyes and help your vision



## **! WARNING**

Operating this without wearing an approved motorcycle helmet, eye protection and protective clothing could increase your chances of head or eye injury, possibly death in the event of severe accident.

Always wear approved motorcycle helmet that fits properly and wear eye protection (goggles or face shield), gloves, boots, long-sleeved shirt or jacket and long pants

## **Additional driving gear**

In addition to a helmet and eye protection, we also recommend:

- sturdy off-road motorcycle boots to help protect your feet, ankles, and lower legs.
- off-road motorcycle gloves to help protect your hands.
- driving pants with knee and hip pads, a driving jersey with padded elbows, chest/shoulder protector.

## **Drive training**

Developing your driving skills is an on-going process. Even if you have driven other UTVs, take time to become familiar with this UTV in a safe area to build your skills. Do not drive in rough

terrain you get accustomed to the UTV's controls, and feel comfortable with its size and weight.

**! WARNING**

Operating UTV without proper instruction could increase your risk of an accident which could lead to serious injury or death.

**! WARNING**

Attempt supporting with your hands to the ground then the off highway recreational cubicle turning over could lead to serious injury or death. Never support with your hands to ground when the off highway recreational vehicle will turn over.

**Age Recommendation**

It is strongly recommended that is not one under the age of 16 be permitted this UTV without adult supervision.

**! WARNING**

A child driving a UTV that is not recommended for his/her age could lose UTV control and result in server injury or death.  
A child under 16 years holed have adult supervision when operate on the UTV

**No Alcohol or Drugs**

Alcohol, drugs and driving don't mix. Even a small amount of alcohol can impair your ability to operate a UTV safely. Likewise, drugs, even if

prescribed by a physician, can be dangerous while operating a UTV. Consult your doctor to be sure it is safe to operate a vehicle after taking medication.

**WARNING!**

Operating this UTV after consuming alcohol or drugs can seriously affect your judgment, cause you to react more slowly, affect your balance and perception, and could result in serious injury or death.

Never consume alcohol or drugs before or while operating this UTV.

## **IS YOUR VEHICLE READY TO DRIVE**

Before each drive, it is important to inspect your UTV and make sure any problems you find are corrected. A predrive inspection is a must, not only for safety, but because having a breakdown, or even a flat tire, can be a major inconvenience.

If your UTV has overturned or has been involved in a collision, do not drive it until your UTV has been inspected by your dealer. There may be damages or other problems you can not see.

## **WARNING!**

Improperly maintaining this UTV or failing to correct a problem before driving can cause a crash in which you can be seriously hurt or even dead.

Always perform a pre-drive inspection before every drive and correct any problems.

## **Pre-drive Inspection**

Check the following items before you get on the UTV :

- Engine oil  
Check the level and add oil if needed.

Check for leaks.

- Coolant  
Check the coolant add coolant if needed. Check for the leaks
- Fuel  
Check the level and add fuel if needed. Also make sure the fuel cap is securely fastened. Check for leaks.
- Tires  
Use a gauge to check the air pressure. Adjust if needed. Also look for signs of damages or excessive wear.
- Nut & Bolts  
Check the wheels to see that the axle nuts are tightened, use a wrench to make sure all accessible nuts, bolts, and fasteners are tight.

- Underbody & Exhaust System

Check for, and remove any dirt, vegetation or other debris that could be fire hazard or interfere with the proper operation of the UTV

- Air Cleaner

Check the air filter. Replace it if needed.

- Leaks, Loose Part

Walk around your UTV and look for anything that appears unusual, such as a leak or loose cable.

- Lights

Make sure the headlight, brake light and tail light are working properly.

- Brakes

Press the brake pedal several times,

check for proper brake pedal free play. Make sure there is no brake fluid leakage.

- Engine stop

When engine is running, turn the switch key counterclockwise. Make sure engine stops.

- Steering Wheel

Check that the wheels turn properly as you turn the steering wheel.

- Cable

Check the cable housing for wear. Check the fittings are tight. Replace or tighten as needed.

- Tie rod

Check the tie rod housing for wear. Check the fittings are tight. Replace

## **! WARNING**

Operating this UTV on paved surfaces may seriously affect handling and control of the UTV, and may cause the vehicle to go out of control

Never operate the on any paved surfaces, including sidewalks, driveways, parking lots and strata.

or tighten as needed.

## **Safe driving precautions Off-road use only**

Your UTV and its tires are designed and manufactured for off-road use only, not for pavement. Driving on pavement

can affect handling and control. You should not drive your UTV on pavement. When driving off-road, also remember to always obey local off-road driving laws and regulations. Obtain permission to drive on private property. Avoid posted areas and obey “no trespassing” signs.

You should never drive your UTV on public streets, roads or highways, even if they are not paved. Drivers of street vehicles may have difficulty seeing and avoiding you, which could lead to a collision. In many states it is illegal to

operate UTV on public streets, roads and highways.

**! WARNING**

Operating this UTV on paved surfaces may seriously affect handling and control of the UTV, and may cause the vehicle to go out of control.

Never operate the on any paved surfaces, including sidewalks,

Operating this UTV on paved surfaces may seriously affect handling and control of the UTV, and may cause the vehicle to go out of control.

Never operate the on any paved surfaces, including sidewalks, driveways, parking lots and strata.

**Keep hands and feet on controls**

Always keep both hands on the steering wheel and both feet on controls. When driving your UTV, it is important to maintain your balance and control of the UTV. Removing hands or feet away from the controls can reduce your ability to react and control the off highway recreational vehicle.

## Control speed

Driving at excessive speed increases the chance of an accident. In choosing a proper speed, you need to consider the capability of your UTV, the terrain, visibility and other operating conditions, plus your own skills and experience.

### **! WARNING**

Operating this UTV at excessive speeds increases your chances of losing control of the UTV, which can result in an accident.

Always drive at a speed that is proper for your UTV, the terrain, visibility and other operating conditions, and your experience.

### **! WARNING**

Removing hand from steering wheel or feet from foot controls during operation can reduce your ability to control the UTV

Always keep both hands on the steering wheel and both feet on the foot controls of your UTV during operation.

## Take Care on Unfamiliar or Rough Terrain

Before driving in a new area, always check the terrain thoroughly. Don't drive fast on unfamiliar terrain or when visibility is limited. (It's sometimes difficult to see and react to obstructions,



such as hidden rocks, bumps, or holes.)  
Never drive past the limit of visibility.  
Maintain a safe distance between your  
and other off-road vehicles. Always  
exercise caution and take extra care on  
rough, slippery and loose terrain.

**! WARNING**

Failure to take extra care when operating on excessively rough, slippery or loose terrain could cause loss of traction or vehicle control, which could result in an accident, including an overturn.

Do not operate on excessively rough, slippery or loose terrain until you have learned and practiced the skills necessary to control the UTV on such terrain. Always be especially cautious on these kinds of terrain.

**Do Not Perform Stunts**

**! WARNING**

Failure to take extra care when operating this UTV on unfamiliar terrain could result in the UTV, overturning or going out of control. Go slowly and be extra careful when operating on unfamiliar terrain. Always be alert to changing terrain conditions when operating the UTV.

You should always operate your UTV in a safe and reasonable manner. When driving always keep all wheels on the ground.

## **! WARNING**

Attempting wheelies and other stunts increases the chance of an accident, including an overturn.

Never attempt stunts, such as wheelies or jumps. Don't try to show off.

### **Break-in**

The first month is most important in the life of your vehicle. Proper operation during this break-in period will help assure maximum life and performance from your new vehicle. The following

guidelines explain proper break-in procedures.

- 1、 After the engine starts, the engine is not allowed in high speed in the neutral gearshift.
- 2、 Drive vehicle from stop to low speed slowly.
- 3、 Avoid braking strongly.
- 4、 Do not exceed the vehicle speed on the below schedule.

### **Starting and Operating Instructions**

- Before starting the engine, be sure that the driver is seated properly in the UTV and tighten the seat belts.
- Testing the UTV in an open place at the beginning to learn how to start, turn and stop.

- Operate the UTV slowly until you are familiar with it.
- The turning radius of this UTV is small and agile, so the centrifugal force is very high when turning at high speed. Slow down to a more controllable speed when turning to prevent the UTV from rolling over.
- To prevent vehicle from rolling over, be sure to only turn the vehicle at a slow more controllable speed.

## PRE-OPERATION CHECKS

Before using this vehicle, check the following points

### **! WARNING**

#### **POTENTIAL HAZARD**

Failure to inspect the vehicle before operating. Failure to properly maintain the vehicle.

#### **WHAT CAN HAPPEN**

Increases the possibility of an accident or equipment damage.

#### **HOW TO AVOID THE HAZARD**

Always inspect your vehicle each time you use it to make sure the vehicle is in safe operating condition. Always follow the inspection and maintenance procedures and schedules described in the Owner's Manual.

### **Front and rear brakes**

#### **Brake fluid leakage**

Check to see if any brake fluid is leaking out of the pipe joints or the brake fluid reservoir. Apply the brakes firmly for

one minute. If there is any leakage, have the vehicle inspected by an dealer.

### **Brake operation**

Test the brakes at slow speed after starting out to make sure they are working properly. If the brakes do not provide proper braking performance, inspect the brake system.

## **! WARNING**

### **POTENTIAL HAZARD**

Driving with improperly operating brakes.

### **WHAT CAN HAPPEN**

You could lose braking ability, which could lead to an accident.

### **HOW TO AVOID THE HAZARD**

Always check the brakes at the start of every ride. Do not operate the vehicle if you find any problem with the brakes.

If a problem cannot be corrected by the adjustment procedures provided in this manual, have the vehicle inspected by an dealer.

## **Fuel**

Make sure there is sufficient gasoline in the tank.

### **CAUTION:**

---

**Use only unleaded gasoline. The use of leaded gasoline will cause severe damage to internal engine parts, such as the valves and piston rings, as well as to the exhaust system.**

---

## **Gasohol**

There are two types of gasohol; gasohol containing ethanol and that containing methanol. Gasohol containing ethanol can be used if ethanol content does not exceed 10%. Gasohol containing methanol is not recommended by because it may cause fuel system damage or vehicle performance problems.

## **! WARNING**

### **POTENTIAL HAZARD**

Improper care when refueling.

### **WHAT CAN HAPPEN**

Fuel can spill, which can cause a fire and severe injury.

Fuel expands when it heats up.

If the fuel tank is overfilled, fuel could spill out due to heat from the engine or the sun.

### **HOW TO AVOID THE HAZARD**

Do not overfill the fuel tank. Be careful not to spill fuel, especially on the engine or exhaust pipe. Wipe up any spilled fuel immediately. Be sure the fuel tank cap is closed securely.

## **Accelerator pedal**

Check to see that the accelerator pedal operates correctly. It must operate smoothly and fully spring back to the idle position when released. Have an dealer repair as necessary for proper operation.

## **Seat belts**

Make sure that both seat belts are not frayed or damaged.

The seat belt must move smoothly when pulled. The latch plate should click securely into the buckle and release when the release button is pushed firmly. Wash off any dirt or mud which could affect operation. Have an dealer repair as necessary for proper operation.

## Steering

Park on level ground. Turn the steering wheel right and left. Check for excessive free play, abnormal noises, or a rough feeling. Have an dealer repair as necessary for proper operation.

## Fittings and fasteners

Always check the tightness of chassis fittings and fasteners before a ride. Take the vehicle to an dealer or refer to the Service Manual for correct tightening torque.

## Lights

Check the headlights and tail/brake lights to make sure they are in working

condition. Repair as necessary for proper operation.

## Switches

Check the operation of all switches. Have an dealer repair as necessary for proper operation.

## Tires

### **! WARNING**

#### **POTENTIAL HAZARD**

Operating this vehicle with improper tires, or with improper or uneven tire pressure.

#### **WHAT CAN HAPPEN**

Use of improper tires on this vehicle, or operation of this vehicle with improper or uneven tire pressure, may cause loss of control, increasing your risk of accident.

## HOW TO AVOID THE HAZARD

1 The tires should be set to the recommended pressure:

- Recommended tire pressure  
Front & Rear

50Ka (0.5 kgf/cm<sup>2</sup>, 7.3Psi)

Check and adjust tire pressures when the tires are cold.

Tire pressures must be equal on both sides.

2. Tire pressure below the minimum specified could cause the tire to dislodge from the rim under severe riding conditions. The following are minimums:

Front & Rear

45Kpa(0.45kgf/cm<sup>2</sup>, 6.5Psi)

Higher pressures may cause the tire to burst. Inflate the tires very slowly and carefully. Fast inflation could cause the tire to burst.

## How to measure tire pressure

Use the tire pressure gauge.

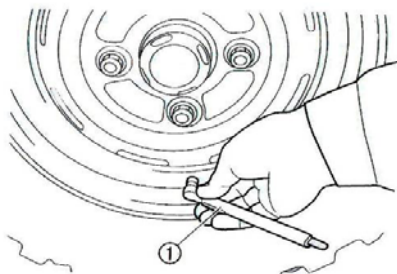
### NOTE:

The tire pressure gauge is included as standard equipment. Make two measurements of the tire pressure and use the second reading. Dust or dirt in the gauge could cause the first reading to be incorrect.

	Recommended pressure	Minimum	Maximum
Front & Rear	50kpa 0.5 kgf/cm <sup>2</sup> , 7.3psi	45kpa 0.45 kgf/cm <sup>2</sup> 6.5psi	52kpa 0.52 kgf/cm <sup>2</sup> 7.6psi

	Manufacturer	size
Front	FAR EAST	25x8-12
Rear	FAR EAST	25x10-12

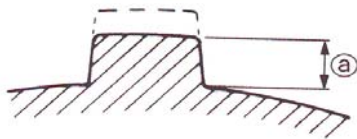




1. Tire pressure gauge

### **Tire wear limit**

When the tire groove decreases to 3 mm (0.12 in) due to wear, replace the tire.



a. Tire wear limit

## **OPERATION**

### **! WARNING**

#### **POTENTIAL HAZARD**

Operating vehicle without being familiar with all controls.

#### **WHAT CAN HAPPEN**

Loss of control, which could cause an accident or injury.

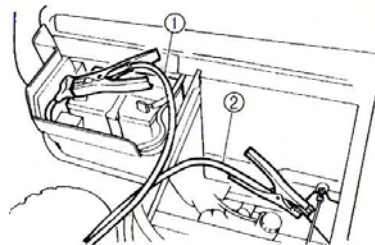
#### **HOW TO AVOID THE HAZARD**

Read the Owner's Manual carefully. If there is a control or function you do not understand, ask your dealer.

## Jump-starting

Jump-starting the vehicle should be avoided. The battery should be removed and charged instead. However, if the vehicle must be jump-started, proceed as follows.

1. Turn the key to “OFF”.
2. Open the hood. Remove the battery compartment cover.
3. Using a charged 12V battery, connect the positive lead of the jumper cable to the positive terminal of the battery in the vehicle and the
4. Connect the negative lead of the jumper cable to the negative terminal of the negative lead to an unpainted metal surface of the vehicle.



1. Jumper cable positive lead
2. Jumper cable negative lead

## **! WARNING**

Do not connect the negative lead of the jumper cable to the negative terminal of the battery in the vehicle.

- Be especially careful not to:
  - touch the positive lead of the jumper cable to the negative lead.
  - reverse the polarity of the jumper cables when connecting to the batteries-battery explosion and/or serious damage to the electrical system may occur.

5. Start the engine.
6. After the engine starts, disconnect the negative lead of the jumper cable from the vehicle and charged battery, and then disconnect the positive lead of the jumper cable from the charged battery and the battery in the vehicle.
7. Install the battery compartment cover.
8. Close the hood.

## **Warming up**

To get maximum engine life, always warm up the engine before starting off. Never accelerate hard with a cold engine! To see whether or not the engine is warm, check if it responds to

the throttle normally with the starter (choke) turned off.

## **Shifting: Neutral to Reverse**

1. Stop the vehicle. Keep your foot off the accelerator pedal.
2. Apply the brake pedal.
3. Shift from neutral to reverse or vice versa by moving the drive select lever along the shift guide.
4. Check behind for people or obstacles, then release the brake pedal.
5. Press the accelerator pedal gradually and continue to watch to the rear while backing.



### **! WARNING**

#### **POTENTIAL HAZARD**

Improperly operating in reverse.

#### **WHAT CAN HAPPEN**

You could hit an obstacle or person behind you, resulting in serious injury.

#### **HOW TO AVOID THE HAZARD**

When you shift into reverse, make sure there are no obstacles or people behind you. When it is safe to proceed, go slowly.

## **Engine break-in**

There is never a more important period in the life of your vehicle than the period between zero and 20 hours.

For this reason, we ask that you carefully read the following material.

Because the engine is brand new, you must not put an excessive load on it for the first several hours of running. During the first 20 hours, the various parts in the engine wear and polish themselves to the correct operating clearances.

During this period, prolonged full throttle operation or any condition which might

result in excessive engine heating must be avoided. However, momentary (2-3 seconds maximum) full throttle operation under load does not harm the engine.

Each full throttle acceleration sequence should be followed with a substantial rest period for engine by cruising at lower r/min so the engine can rid itself of the temporary build up of heat. If any abnormality is noticed during this period, consult an dealer.

### **0-10 hours:**

Avoid continuous operation above half throttle. Allow a cooling off period of five to ten minutes after every hour of

operation. Vary the speed of the vehicle from time to time. Do not operate it at one set throttle position.

### **10-20 hours:**

Avoid prolonged operation above 3/4 throttle. Rev the vehicle freely but do not use full throttle at any time.

### **After break-in:**

The vehicle can now be operated normally.

### **Parking**

When parking, stop the engine and shift the drive select lever into the neutral position. Apply the parking brake to help prevent the vehicle from rolling.

## Parking on a slope

### **! WARNING**

#### **POTENTIAL HAZARD**

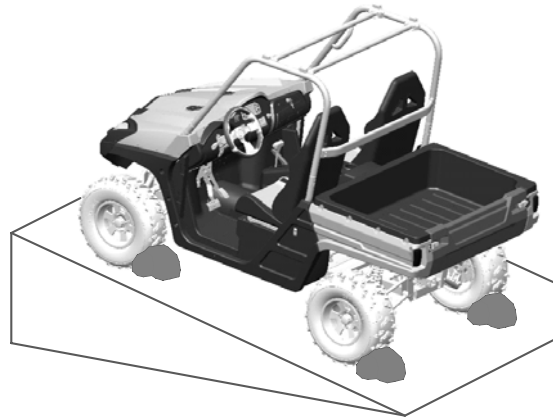
Parking on a hill or other incline.

#### **WHAT CAN HAPPEN**

The vehicle could roll out of control, increasing the chance of an accident.

#### **HOW TO AVOID THE HAZARD**

Avoid parking on hills or other inclines. If you must park on an incline, apply the parking brake, and block the front and rear wheels with rocks or other objects. Do not park the vehicle at all on hills that are so steep you could not walk up them easily.



1. Bring the vehicle to a stop by applying the brakes,
2. Stop the engine.
3. With the brakes applied, set the parking brake.

## Accessories and loading

### Accessories

Accessories can affect the handling and control of your vehicle. Keep the following in mind when considering an accessory or operating a vehicle which has accessories.

.Choose only accessories designed for your vehicle. Your dealer has a variety of genuine accessories. Other accessories may also be available on the market. However, it is not possible for to test all control over the quality or suitability of them. Choose a genuine accessory, or one that is equivalent in

design and quality.

. Accessories should be rigidly and securely mounted. An accessory which can shift position or come off while you are operating could affect your ability to control the vehicle.

. Do not mount an accessory where it could interfere with your ability to control the vehicle. Examples include (but are not limited to) an object that limits your ability to turn the steering wheel or one that limits your view.

. Use extra caution when driving a vehicle with accessories. The vehicle may handle differently than it does without accessories.

## Loading

Cargo or a trailer can change the stability and handling of a vehicle.

You must use common sense and good judgment when carrying cargo or towing a trailer.

Keep the following points in mind:

- . Never exceed the weight limits shown. An overloaded vehicle can be unstable.
- . Choose a trailer hitch drawbar designed for use with a 5 cm (2in) receiver.
- . Do not exceed the maximum tongue weight. You can measure tongue weight with a bathroom scale. Put the tongue of the loaded trailer on the scale with the tongue at hitch height. Adjust the load in

the trailer, if you are carrying cargo and towing a trailer, include the tongue weight in the maximum vehicle load limit.

- . Load cargo in the cargo bed as close to the center of the vehicle as possible and tie it down using the cargo hooks equipped on the cargo bed.
- . Tie down cargo securely in the trailer. Make sure cargo in the trailer cannot move around. A shifting load can cause an accident.
- . Make sure the load does not interfere with controls or your ability to see where you are going.
- . Drive more slowly than you would



without a load. The more weight you carry, the slower you should go.

Although conditions vary, it is good practice not to exceed low range whenever you are carrying heavier loads or when towing a trailer.

- . Allow more braking distance.

A heavier vehicle takes longer to stop.

- . Avoid making sharp turns unless at very slow speeds.

- . Avoid hills and rough terrain. Choose terrain carefully. Added weight affects the stability and handling of the vehicle.

## **! WARNING**

### **POTENTIAL HAZARD**

Overloading this vehicle or carrying or towing cargo improperly.

### **WHAT CAN HAPPEN**

Could cause changes in vehicle handling which could lead to an accident.

### **HOW TO AVOID THE HAZARD**

Never exceed the stated load capacity for this vehicle.

Cargo should be properly distributed and securely attached.

Reduce speed when carrying cargo or pulling a trailer. Allow greater distance for braking.

# DRIVING YOUR VEHICLE

## GETTING TO KNOW YOUR VEHICLE

This off-highway utility vehicle will handle and maneuver differently from an ordinary passenger car or other vehicle.

Before you begin to use your vehicle, be sure you have read this Owner's Manual completely and understand the operation of the controls. Please also read all caution and warning labels on your vehicle.

This vehicle is designed for the operator and one passenger. The driver and passenger must always wear a seat belt. Never carry passengers in the cargo bed.

## **! WARNING**

### **POTENTIAL HAZARD**

Not wearing the seat belt.

Wearing the seat belt improperly.

### **WHAT CAN HAPPEN**

There is increased risk of being killed or seriously injured in an accident.

### **HOW TO AVOID THE HAZARD**

Always wear your seat belt when riding in the vehicle.

Be sure the seat belt is close-fitting across your hips and chest and is latched securely.

## **! WARNING**

### **POTENTIAL HAZARD**

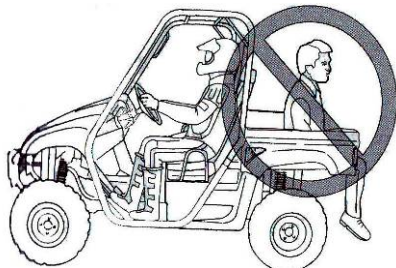
Carrying a passenger in the cargo bed.

### **WHAT CAN HAPPEN**

The passenger could fall or be struck by objects in the cargo bed.

### **HOW TO AVOID THE HAZARD**

Never carry a passenger in the cargo bed. The cargo bed is designed to carry cargo only.



## **! WARNING**

### **POTENTIAL HAZARD**

Overloading this vehicle or carrying or towing cargo improperly.

### **WHAT CAN HAPPEN**

Could cause changes in vehicle handling which could lead to an accident.

### **HOW TO AVOID THE HAZARD**

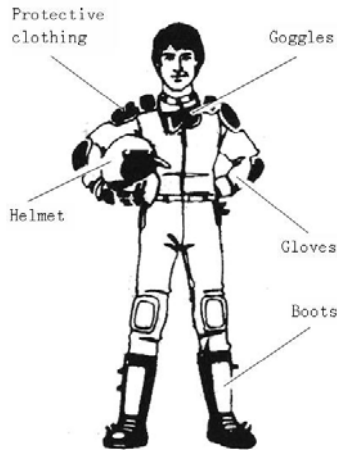
Never exceed the stated load capacity for this vehicle.

Cargo should be properly distributed and securely attached.

Reduce speed when carrying cargo or pulling a trailer. Allow greater distance for braking.

Always follow the instructions in your Owner's Manual for carry cargo or pulling a trailer.

The driver and passenger must always wear a seat belt and an approved motorcycle helmet. Also wear eye protection and protective clothing, including over-the-ankle boots, gloves, a long-sleeved shirt or jacket, and long pants. Keep hands and feet inside the vehicle at all times.



## **! WARNING**

### **POTENTIAL HAZARD**

Operating this vehicle without wearing an approved motorcycle helmet, eye protection, and protective clothing

### **WHAT CAN HAPPEN**

Operating without an approved motorcycle helmet increases your chances of a severe head injury or death in the event of an accident.

Operating without eye protection can result in an accident and increases your chances of a severe injury in the event of an accident

### **HOW TO AVOID THE HAZARD**

Always wear an approved motorcycle helmet that fits properly.

You should also wear:

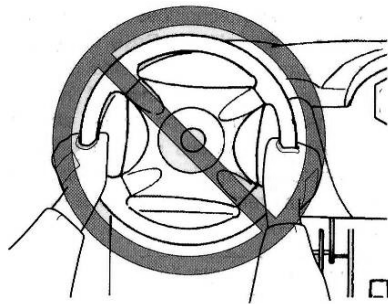
eye protection (goggles or face shield)  
long-sleeved shirt or jacket, gloves,

boots, long pants.

## **TURNING YOUR VEHICLE**

It is possible for the vehicle to roll over or go out of control if you attempt sharp, high-speed turns. You should also be careful making sharp turns on rough terrain. Do not attempt to turn around or make abrupt maneuvers on slopes. Position your hands on the steering wheel so that your thumbs and fingers do not wrap around the wheel. This is particularly important when driving in rough terrain. The front wheels will move right and left as they respond to the terrain, and this movement will be felt in the steering wheel. A sudden jolt could wrench the steering wheel around,

and your thumbs or fingers could be injured if they are in the way of the steering wheel spokes.



## **Braking**

Braking ability is affected by the type of terrain. In most cases, gradually application of the brakes is more effective than abrupt braking, particularly on loose surfaces like gravel.

Always allow for greater braking distance on rough, loose, or slippery surfaces.

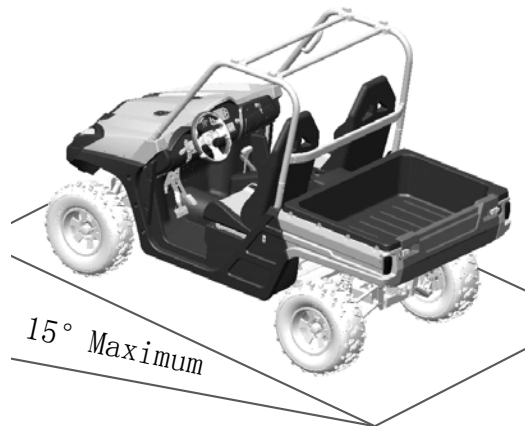
### **Going uphill**

Do not attempt to climb hills until you have mastered basic maneuvers on flat ground. Use proper driving techniques to avoid overturns on hills and slopes.

Drive straight up hills, and avoid crossing the side of a hill, which increases your chance of rollover.

Practice first on gentle slopes before attempting steeper hills. Always check the terrain carefully before attempting any hill. Use common sense and remember that some hills are too steep for you to climb.

Maximum slope angle: 15°



Choose carefully which hills you attempt to climb. Avoid hills with slippery surfaces or ones where you will not be able to see far enough ahead of you.

## **! WARNING**

### **POTENTIAL HAZARD**

Operating on excessively steep hills.

### **WHAT CAN HAPPEN**

The vehicle can overturn more easily on extremely steep hills than on level surfaces or small hills.

### **HOW TO AVOID THE HAZARD**

Never operate your vehicle on hills too steep for it or your abilities.

Never operate vehicles on hills steeper than 15°.

Do not drive across the face of a hill.

Go straight up the hill.

Practice on smaller hills before attempting large hills.

If you start to lose traction or momentum when climbing, and you decide you will be unable to continue, use the brakes to come to a stop. Do not attempt to turn the vehicle around. With your foot on the brake, look behind you and plan your descent. Shift the drive select lever in reverse so you can use the engine brake if necessary to slow your descent. Release the brake and begin to coast down the hill. Use engine braking as much as possible, gently applying the brakes when necessary.

## Going downhill

Check the terrain carefully before going down a hill. When possible, choose a path that lets you drive your vehicle straight downhill. Avoid sharp angles that could allow the vehicle to pitch or roll over. Carefully choose your path and drive no faster than you will be able to react to obstacles that may appear.

### **! WARNING**

#### **POTENTIAL HAZARD**

Going down a hill improperly.

#### **WHAT CAN HAPPEN**

Could cause loss of control or cause the vehicle to overturn.

#### **HOW TO AVOID THE HAZARD**

Always check the terrain carefully before you start down any hill. Never go down a hill at high speed. Avoid going down a hill at an angle that would cause the vehicle to lean sharply to one side. Go straight down the hill where possible.



On most slopes, this will let you use engine braking to help you go downhill slowly. Go as slowly as possible. If you are starting to go too fast, apply the brakes gently. Avoid sudden application of the brakes, which could cause the vehicle to start sliding.

If you are sliding or skidding, try to steer in the direction the vehicle is sliding to help you regain control.

If you must turn on the hill to avoid an obstacle, do so slowly and carefully. If the vehicle starts to tip, gradually steer in the downhill direction if there are no obstacles in your path. As you regain proper balance, gradually steer again in the direction you want to go.

## **Crossing through shallow WATER**

If you must cross shallow, slow moving water up to the depth of the vehicle's floorboards, choose your path carefully to avoid sharp drop-offs, large rocks, or slippery surfaces that could cause the vehicle to overturn. Never operate through water deeper than 33 cm (13 in) or fast flowing water.

Wet brakes may have reduced effectiveness. After leaving the water, test your brakes. If necessary, apply the brakes several times to let friction dry out the linings.

## **! WARNING**

### **POTENTIAL HAZARD**

Operating this vehicle through deep or fast-flowing water.

### **WHAT CAN HAPPEN**

Loss of control, which could result in an accident including overturn, which could increase the risk of drowning.

### **HOW TO AVOID THE HAZARD**

Never operate this vehicle in fast flowing water or in water deeper than 33 cm (13 in).

Remember that wet brakes may have reduced stopping ability. Test your brakes after leaving water. If necessary, apply them several times to let friction dry out the linings.

## **CAUTION:**

---

After riding your vehicle in water, be sure to drain the trapped water by removing the check hose at the bottom of the air filter case , the drive select button . Wash the vehicle in fresh water if it has been operated in salt water or muddy conditions.

---

### **Riding over rough terrain**

Operating over rough terrain should be done with caution. Look for obstacles that could cause damage to the vehicle or could lead to a rollover or accident. Avoid jumping the vehicle as injury, loss of control, and damage to the vehicle could occur.

## **! WARNING**

### **POTENTIAL HAZARD**

Failure to use extra care when operating this vehicle on unfamiliar terrain.

### **WHAT CAN HAPPEN**

You can come upon hidden rocks, bumps, or holes, without enough time to react. Could result in the vehicle overturning or going out of control.

### **HOW TO AVOID THE HAZARD**

Go slowly and be extra careful when operating on unfamiliar terrain. Always be alert to changing terrain conditions when operating the vehicle.

### **Riding in brush or wooded areas**

When operating in areas with brush or trees, watch carefully on both sides and above the vehicle for obstacles such as branches that the vehicle might hit, causing an accident, or for brush that might enter the vehicle as you pass and strike the driver or passenger. Never hold onto the enclosure so your hand is outside the vehicle. Hold only onto the handgrip inside the enclosure.

### **Encountering obstacles on the trail**

If you cannot go around an obstacle such as a fallen tree trunk or a ditch, stop the vehicle where it is safe to do so.

Set the parking brake and get out to inspect the area thoroughly. Look from both your approach side and the exit side. If you believe you can continue safely, decide the path that will allow you to a right angle as possible to minimize vehicle tipping. Go only fast enough to maintain your momentum but still give yourself plenty of time to react to changes in conditions. If there is any question about your ability to maneuver safely over the obstacle, you should turn around, if the ground is flat and have the room, or back up until you find a less difficult path.

## **! WARNING**

### **POTENTIAL HAZARD**

Improperly operating over obstacles.

### **WHAT CAN HAPPEN**

Could cause loss of control or a collision. Could cause the vehicle to overturn.

### **HOW TO AVOID THE HAZARD**

Before operating in a new area, check for obstacles.

Use extreme caution when operating over large obstacles, such as large rocks or fallen trees.

## **PERIODIC MAINTENANCE AND ADJUSTMENT**

Periodic inspection, adjustment and lubrication will keep your vehicle in the safest and most efficient condition possible. Safety is an obligation of the vehicle inspection, adjustment and lubrication are explained in the following pages.

### **! WARNING**

#### **POTENTIAL HAZARD**

Servicing an engine while it is running.

#### **WHAT CAN HAPPEN**

Moving parts can catch clothing or parts of the body, causing injury.

Electrical components can cause shocks or can start fires.

#### **HOW TO AVOID THE HAZARD**

Turn off the engine when performing maintenance unless otherwise specified. Have an dealer perform service if you are not familiar with vehicle service.

## Periodic maintenance/lubrication

### NOTE :

- 
- For vehicles not equipped with an odometer or hour meter, follow the month maintenance intervals.
  - For vehicles equipped with an odometer or an hour meter, follow the km(mi) or hours maintenance intervals. However, keep in mind that if the vehicle isn't used for a long period of time, the month maintenance intervals should be followed.
  - Items marked with an asterisk should be performed by a dealer as they require special tools, data and technical skills.
-

ITEM	ROUTINE	Whichever Comes first →	INITIAL			EVERY		
			month	1	3	6	6	12
			Km (mi)	320 (200)	1,200 (750)	2,400 (1,500)	2,400 (1,500)	4,800 (3,000)
			hours	20	75	150	150	300
<b>Cooling system</b>	<ul style="list-style-type: none"> <li>● Check coolant leakage.</li> <li>● Repair if necessary.</li> <li>● Replace coolant every 24 months.</li> </ul>		○	○	○	○	○	
<b>Spark plug</b>	<ul style="list-style-type: none"> <li>● Check condition.</li> <li>● Adjust gap and clean.</li> </ul>		○	○	○	○	○	
<b>Air filter elements (engine and air intake duct)</b>	<ul style="list-style-type: none"> <li>● Clean.</li> <li>● Replace if necessary.</li> </ul>	Every 20-40 hours (More often in wet or dusty areas.)						
<b>Crankcase breather system*</b>	<ul style="list-style-type: none"> <li>● Check breather hose for cracks or damage.</li> <li>● Replace if necessary.</li> </ul>			○	○	○		
<b>Exhaust system*</b>	<ul style="list-style-type: none"> <li>● Check for leakage.</li> <li>● Tighten if necessary.</li> <li>● Replace gasket(s) if necessary.</li> </ul>			○	○	○		
<b>Spark arrester</b>	<ul style="list-style-type: none"> <li>● Clean.</li> </ul>			○	○	○		
<b>Fuel line*</b>	<ul style="list-style-type: none"> <li>● Check fuel hose for cracks or damage..</li> <li>● Replace if necessary.</li> </ul>			○	○	○		
<b>Engine oil</b>	<ul style="list-style-type: none"> <li>● Replace (warm engine before draining) .</li> </ul>		○		○	○		
<b>Engine oil filter cartridge</b>	<ul style="list-style-type: none"> <li>● Replace.</li> </ul>		○		○	○		
<b>Front gear oil</b>	<ul style="list-style-type: none"> <li>● Check oil level/oil leakage.</li> </ul>		○			○		
<b>Rear gear oil</b>	<ul style="list-style-type: none"> <li>● Replace.</li> </ul>					○		

ITEM	ROUTINE	Whichever Comes first →	INITIAL			EVERY		
			month	1	3	6	6	12
			Km (mi)	320 (200)	1,200 (750)	2,400 (1,500)	2,400 (1,500)	4,800 (3,000)
hours	20	75	150	150	300			
Front brake*	<ul style="list-style-type: none"> <li>● Check operation/brake pad wear/fluid leakage.</li> <li>● Correct if necessary. Replace pads if worn to the limit.</li> </ul>		○	○	○	○	○	
Rear brake*	<ul style="list-style-type: none"> <li>● Check operation/brake pad wear/fluid leakage.</li> <li>● Correct if necessary. Replace pads if worn to the limit.</li> </ul>		○	○	○	○	○	
Accelerator pedal*	<ul style="list-style-type: none"> <li>● Check operation and free play.</li> </ul>		○	○	○	○	○	
Wheels*	<ul style="list-style-type: none"> <li>● Check balance/damage/ runout .</li> <li>● Repair if necessary.</li> </ul>		○		○	○	○	
Wheel bearings*	<ul style="list-style-type: none"> <li>● Check bearing assemblies for looseness/damage..</li> <li>● Replace if damaged.</li> </ul>		○		○	○	○	
Front and rear Suspension*	<ul style="list-style-type: none"> <li>● Check operation and for leakage.</li> <li>● Correct if necessary.</li> </ul>				○		○	
Steering system*	<ul style="list-style-type: none"> <li>● Check operation and for looseness/Replace if damage.</li> <li>● Check toe-in/Adjust if necessary.</li> </ul>		○	○	○	○	○	
Drive shaft universal joint*	<ul style="list-style-type: none"> <li>● Lubricate with lithium-soap-based grease.</li> </ul>				○	○	○	
Engine mount*	<ul style="list-style-type: none"> <li>● Check for cracks or damage.</li> <li>● Correct bolt tightness.</li> </ul>				○	○	○	
Front and rear axle boots*	<ul style="list-style-type: none"> <li>● Check operation.</li> <li>● Replace if damage.</li> </ul>		○				○	
Fittings and fasteners*	<ul style="list-style-type: none"> <li>● Check all chassis fittings and fasteners.</li> <li>● Correct if necessary.</li> </ul>		○	○	○	○	○	



## **NOTE :**

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- Recommended brake fluid: DOT4
  - Brake fluid replacement:
    - Replace the brake hoses every four years, or if cracked or damaged.
    - When disassembling the master cylinder or caliper, replace the brake fluid.  
Normally check the brake fluid level and add fluid as required.
  - On the inner parts of the master cylinder and caliper, replace the oil seals every two years.
-

## Gear Box Oil

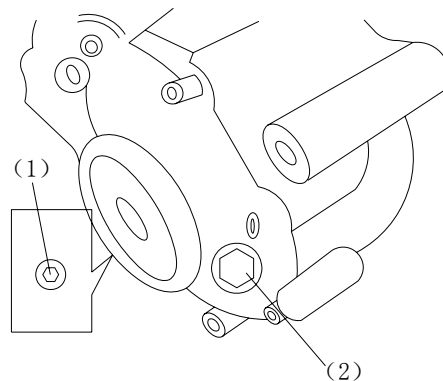
Type	Hypoid gear oil
Viscosity (weight)	SAE 85w/90
Suggested oil	Shaft drive oil of original manufacturer or equivalent

## Changing Oil

Changing the oil with the gear box at normal operating temperature to assure complete and rapid draining.

- 1、Park the UTV on level ground.
- 2、Place an oil drain pan under the oil drain plug (1).
- 3、Remove the oil filler cap (2) and the

drain plug.



(1)oil drain plug

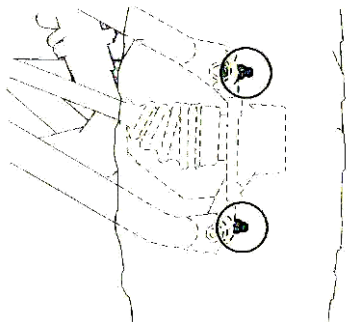
(2)oil filler cap

## Gearbox Oil Level

The oil should be level with the bottom of the oil level hole. Refill as required until gearbox oil level flows through oil level hole.

## Rear knuckle upper and lower pivot lubrication

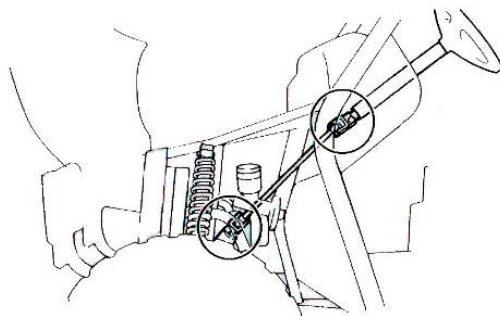
Lubricate the knuckle upper and lower pivots with a grease gun.



Recommended lubricant:  
Lithium-soap-based grease

## Steering shaft lubrication

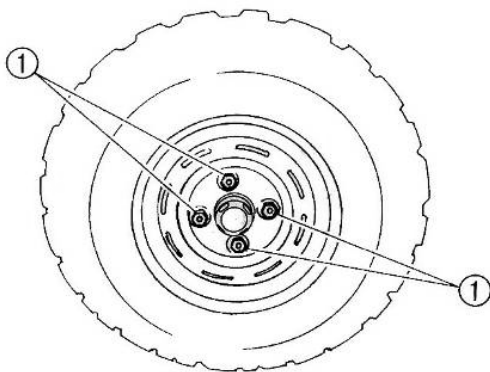
Lubricate the pivot points.



Recommended lubricant:  
Lithium-soap-based grease  
(all purpose grease)

## Wheel removal

1. Loosen the wheel nuts.
2. Elevate the vehicle and place a suitable stand under the frame.
3. Remove the nuts from the wheel.
4. Remove the wheel.



1. Nut (x4)

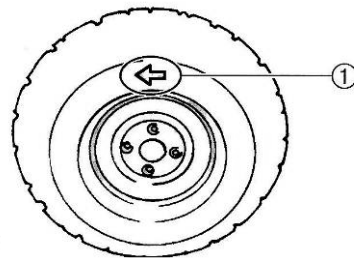
## Wheel installation

1. Install the wheel and the nuts.

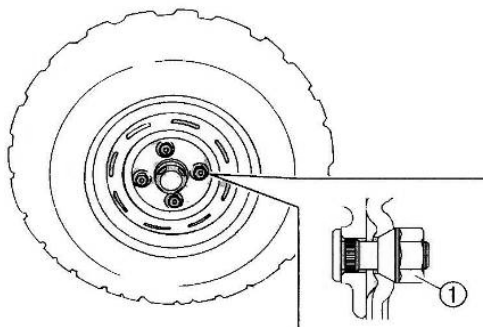
### NOTE:

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- The arrow mark on the tire must point toward the rotating direction of the wheel.
  - Tapered nuts are used for both the front and rear wheels. Install the nut with its tapered side towards the wheel.
- 



1. Arrow mark



1. Tapered nut

2. Lower the vehicle so that the wheel is on the ground.
3. Tighten the wheel nuts to the specified torque.

Wheel nut to Rear: rque:  
Front & Rear:  
64 Nm (6.4 kgf.m, 47 ft.lbf)

## Battery

This vehicle is equipped with a sealed-type battery. Therefore it is not necessary to check the electrolyte or add distilled water in the battery. If the battery seems to have discharged, consult dealer.

### **CAUTION:**

**Do not try to remove the sealing caps of the battery calls. You may damage the battery.**

### **! WARNING**

#### **POTENTIAL HAZARD**

Failure to handle batteries or battery electrolyte carefully.

#### **WHAT CAN HAPPEN**

You could be poisoned. You could be severely burned by the sulfuric

acid in battery electrolyte. Batteries produce explosive gases.

### **HOW TO AVOID THE HAZARD**

Avoid contact with skin, eyes or clothing. Always shield eyes when working near batteries. Keep out of reach of children.

#### **Antidote:**

EXTERNAL : Flush with water.

INTERNAL : Drink large quantities of water or milk. Follow with milk of magnesia, beaten egg or vegetable oil. Get prompt medical attention.

EYES : Flush with water for 15 minutes and get prompt medical attention. Keep batteries away from sparks, flames, Ventilate when charging or using in a closed space.

## **Battery maintenance**

1. When the vehicle is not used for a month or longer, remove the battery and store it in a cool, dark place. Completely recharge the battery before reinstallation.

### **CAUTION:**

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**The carburetor was set at the factory after many tests. If the settings are disturbed by someone without sufficient technical knowledge, poor engine performance and damage may result.**

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2. Always make sure the connections are correct when putting the battery back in the vehicle.

## **! WARNING**

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**Do not connect the negative lead of the jumper cable to the negative terminal of the battery in the vehicle.**

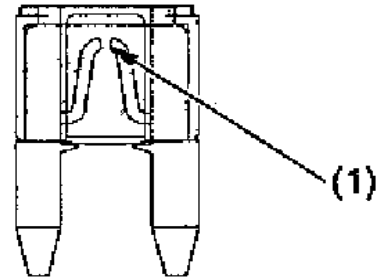
- . Be especially careful not to:**
  - .touch the positive lead of the jumper cable to the negative lead.**
  - .reverse the polarity of the jumper cables when connecting to the batteries-battery explosion and/or serious damage to the electrical system may occur.**
- 

### **If a fuse blows**

All of the electrical circuits on your UTV have fuses to protect them from damage caused by excess current

flow ) short circuit or overload).

If something electrical on your UTV stops working, the first thing you should check for is a blown fuse (1). Check all the fuses before looking elsewhere for another possible cause of the problem. Replace any blown fuses and check component operation.



(1) Blown fuse

## Fuse replacement

The main fuse and the fuse box are located under the hood. If a fuse is blown, turn off the main switch and install a new fuse of the specified amperage. If a fuse is blown, replace it as follows.

1. Remove the battery compartment cover by lifting it up and pulling it out.
2. Turn the key to "OFF" and turn off the electrical circuit in question.

### **CAUTION:**

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To prevent accidental short-circuiting, turn off the main switch when checking or replacing a fuse.

---

3. Remove the blown fuse, and then install a new fuse of the specified amperage.

## Troubleshooting

Although vehicles receive a rigid inspection before shipment from the factory, trouble may occur during operation. Any problem in the fuel, compression, or ignition systems can cause poor starting and loss of power. The troubleshooting chart describes a quick, easy procedure for making check. If your vehicle requires any repair, take it to dealer.

The skilled technicians, at dealership have the tools, experience, and know-how to properly service your vehicle. Use only genuine parts on your vehicle. Imitation parts may look like parts, but they are often inferior.



Consequently, they have a shorter service life and can lead to expensive repair bills.

**! WARNING**

**POTENTIAL HAZARD**

Checking the fuel system while smoking or near an open flame.

**WHAT CAN HAPPEN**

Fuel can ignite or explode, causing severe injury or property damage.

**HOW TO AVOID THE HAZARD**

Do not smoke when checking the fuel system. Make sure there are no open flames or sparks in the area, including pilot lights from water heaters or furnaces.

## Engine use and maintenance

### **! WARNING**

- Without the reasonable training, the improper operation may cause injury, death and engine damage.
- The improper installation and operation will cause injury, death and engine damage.
- Because of the high temperature, the engine is strictly prohibited to touch without any protective measure.
- To avoid the injury and engine damage, should take some proactive measures when making assembly or using the engine rotation parts.
- No maintenance or use the engine in a closed room.

- No repair the engine in the roadside, it could cause a fair.
- Do not make modification on the engine or its parts., it will result in the human injury, engine damage and warranty terminated.
- Exhaust gas which from the engine exhaust pipe may lead to cancer, death, or other unknown physical injuries



## **The use of the engine**

preparation of starting

(1) When opening the package, check all the exposed fasteners are tightened, fixing the loose and missing parts.

(2) Add fuel, lubricants and antifreeze liquid according to the instruction.

### **Warning!**

Engine must use the genuine oil and coolant. When adding coolant, must fill in the cooling pipe and remove the air from the cooling system, otherwise it will cause the engine overheated and high pressure of cooling system.

Use 4-stroke mineral-based engine

oil that meets or exceeds the requirements for API service classification SM, SL or SJ. Always check the API service label certification on the oil container, it must contain at least one of the above standards.

### **Oil Viscosity**

SAE 5W30 mineral-based oil is recommended for all seasons.

However, during the hottest days of the summer, the XP-S 10W40 mineral oil can be used.

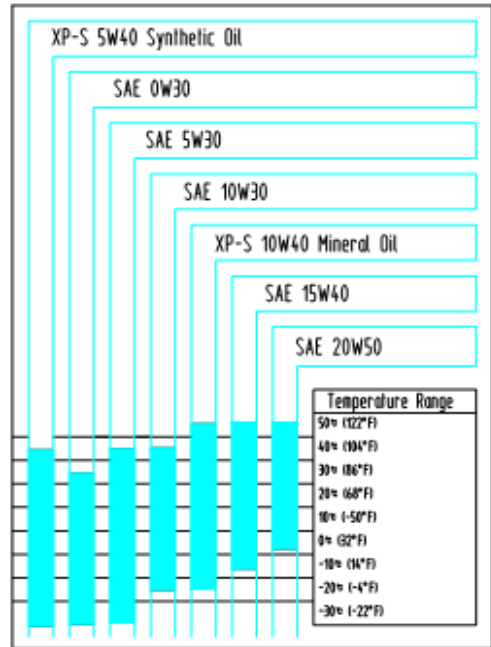
NOTE: For improved overall performance and all season applications, use XP-S 5W40 synthetic oil.

## Oil Level

**CAUTION:** Check level frequently and refill if necessary. **Do not overfill.** Operating the engine with an improper level may severely damage engine. Wipe off any spillage.

With vehicle on a level surface and engine cold, not running, check the oil level as follows:

1. Unscrew dipstick then remove it and wipe clean.
2. Reinstall dipstick, screw in it completely.





TYPICAL

1. Full
2. Add
3. Operating range
3. Remove and check oil level. It

should be near or equal to the upper mark.

To add oil, remove the dipstick. Place a funnel into the dipstick tube to avoid spillage.

Add a small amount of recommended oil and recheck oil level.

Repeat the above procedures until oil level reaches the dipstick's upper mark. **Do not overfill.**

Properly tighten dipstick. **Oil Change and Oil Filter Replacement**

Oil and filter are to be replaced at the same time. Oil change should be done with a warm engine.

 **WARNING**

The engine oil can be very hot. In order to avoid potential burns, do not remove the engine drain plug or the filter cover if the engine is hot. Wait until engine oil is warm.

Ensure vehicle is on a level surface.

Remove dipstick.

Clean the oil drain plug area.

Place a drain pan under the oil drain plug area.

Unscrew oil drain plug.

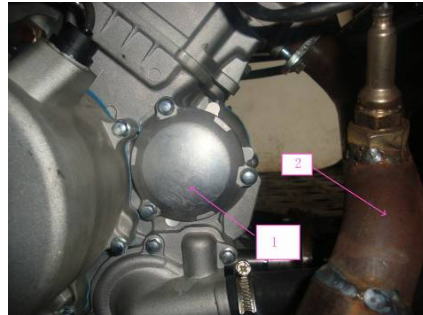


*TYPICAL*

1. Oil drain plug

Allow enough time for oil to flow out of oil filter.

Unscrew the oil filter cover.



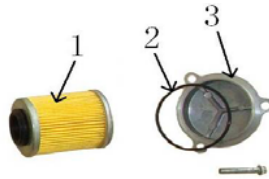
1. Oil filter cover

2. Exhaust pipe

Remove the oil filter and replace with a new filter.

Check the cover O-ring and change it if necessary

1. Oil filter
2. O-ring
3. Oil filter cover



Screw oil filter cover in place.

Wipe out any oil spillage on engine.

Change gasket on oil drain plug.

Clean gasket area on engine and oil drain plug then reinstall plug. Refill engine at proper level with the recommended oil. Refer to SPECIFICATIONS for capacity.

Start engine and let idle for a few minutes. Ensure oil filter area and oil drain plug areas are not leaking.

Stop engine. Wait a while to allow oil to flow down to crankcase then check oil level. Refill as necessary.

ry.

Dispose of oil as per your local environmental regulations.

Engine Coolant

Recommended coolant

Always use ethylene-glycol antifreeze containing corrosion inhibitors specifically for internal combustion aluminum engine.

Cooling system must be filled with premixed coolant .

Coolant level

### **WARNING !**

Check coolant level with engine cold. Never add coolant in cooling system when engine is hot.

## Remove access panel.



### 1. Coolant reservoir

With vehicle on a level surface, liquid should be between MIN. and MAX. level marks of coolant reservoir.

NOTE: When checking level at temperature lower than 20°C, it may be lightly lower than MIN. mark. Add coolant up to MAX. mark if required. Use a funnel to avoid spillage. **Do not overfill.**

Properly reinstall and tighten filler cap and reinstall access panel.

If the coolant is added in the coolant

reservoir, check the level in the radiator too. Add coolant if necessary.

### **WARNING !**

In order to avoid getting burned, do not remove the radiator cap if the engine is hot.

NOTE: A cooling system that frequently requires coolant is the indication of leaks or engine problems. See an authorized dealer.

### **Coolant Replacement**

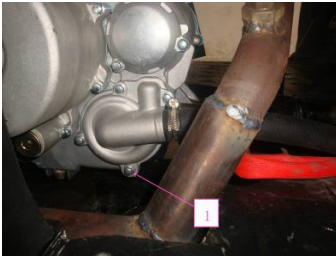
### **WARNING !**

In order to avoid potential burns, do not remove the radiator cap or loosen the coolant drain plug if the engine is hot.

Open the front access panel and remove the radiator cap.

Unscrew the coolant drain plug and drain the coolant into a suitable container.

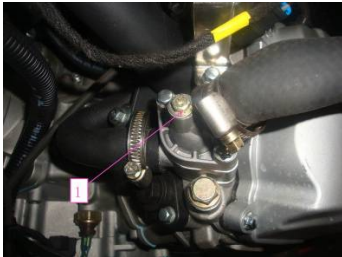




1. Coolant drain plug

**NOTE:** Do not unscrew the coolant drain plug completely.

Unscrew the bleeding screw on the top of thermostat housing.



Drain the system completely and reinstall the coolant drain plug.



Pinch hose between radiator and thermostat housing with a large pincher or an equivalent.

**CAUTION:** Do not use vise-grip pliers to pinch hose.

Fill the radiator until the coolant comes out by the thermostat housing hole.

Complete the radiator filling.

Check the level in the coolant reservoir

and refill if necessary.

Run engine at idle with the radiator cap off.

Slowly add coolant if necessary.

As this point, wait until engine reaches normal operating temperature. Depress the throttle level two or three times; then add coolant if required.

Install radiator cap. Inspect all connections for leaks and check coolant level in the reservoir.

## Air Filter

### Removal

**CAUTION:** never remove or modify any component in the air filter housing. Otherwise, engine performance degradation or damage can occur. The engine is calibrated to operate specifically with these components.

Remove access panel.

Loosen clamp and remove air filter.



1. Clamp
2. Air filter

### Cleaning

Pour cleaning solution or an equivalent into a bucket. Put the filter in to soak.

While filter soaks, clean inside the air filter housing.

Rinse the filter with warm water until all cleaning solution disappears.

Then, let the filter dry completely.

### **Installation**

Properly reinstall removed parts in the everse order of their removal.

### **Drive Belt**

See and authorized ODES dealer to check the width and the condition of drive belt.

### **CVT Cover Drain Screw**

Any time you suspect that water has entered the CVT cover, drain the CVT housing by removing the drain screw.



### **Valve Adjustment**

See an authorized ODES dealer for valve adjustment.

Insufficient clearance will cause loss of power and possibly damage the valves. Excessive clearance will cause noise.

### **Spark Arrester**

The muffler must be periodically purged of accumulated carbon.

#### **WARNING !**

Never run engine in an enclosed area. Never perform this operation immediately after the engine has been run because exhaust system is very hot. Make sure that there are no combustible materials in the area. Wear eye protection and gloves. Never stand behind the vehicle while purging exhaust system. Respect all applicable laws and regulations.

Select a well-ventilated area and make sure the muffler is cool.

Place transmission on PARK position.

Remove the cleanout plug of the muffler.

Block the end of the muffler with a shop rag and start engine.

Momentarily increase engine RPM several times to purge accumulated carbon out of the muffler.

Stop engine and allow muffler to cool.

Reinstall the cleanout plug.

### **Radiator**

Periodically check the radiator area for cleanliness.



1. Coolant reservoir

2. Radiator

Inspect radiating fins. They must be clean, free of mud, dirt, leaves and any other deposit that would prevent the radiator to cool properly.

Remove as much deposits as you can with your hands. If water is available in proximity, try rinsing the radiating fans.

If available, use a garden hose to rinse the radiating fins.

### **WARNING!**

Never clean radiator with your hands when it is hot. Let the radiator cool down before cleaning.

**CAUTION:** Be careful not to damage the radiating fins when cleaning. Do not use any object/tool that could damage the parts to allow efficient cooling. When hosing, use

low pressure only, never use a high pressure washer.

See an authorized ODES dealer to check the performance of the cooling system.

## **Gearbox Oil**

### **Recommended Oil**

Use XP-S chain case oil or an equivalent.

**CAUTION:** Do not use unrecommended other types of oil when servicing. Do not mix with other types of oil.

### **Gearbox Oil Level**

**CAUTION:** Check level and refill if necessary. Do not overfill. Operating the gearbox with an improper level may severely damage gearbox. Wipe off any spillage.

Place the vehicle on a level surface.

Select NEUTRAL position then apply parking brake.

Check the gearbox oil level by removing the gearbox oil level plug.

1. Oil level plug
2. Oil drain plug



The oil should be level with the bottom of the oil level hole. Refill as required until gearbox oil level flows through oil level hole.

### **Gearbox Oil Change**

Place the vehicle on a level surface.

Clean drain plug area and oil level plug then remove the gearbox drain plug.

NOTE: to completely drain the gearbox, place a jack under the left footrest and tilt the vehicle toward the right side. When the gearbox is empty, install the drain plug and replace the vehicle on the ground.

Refill gearbox, using XP-S chaincase oil or an equivalent.

**CAUTION:** Do not use other unrecommended types of oil when servicing. Do not mix with other types of oil. The oil should be level with the bottom of the oil level hole. Refill as required through the breathe pipe, until gearbox oil level flows through oil level hole.

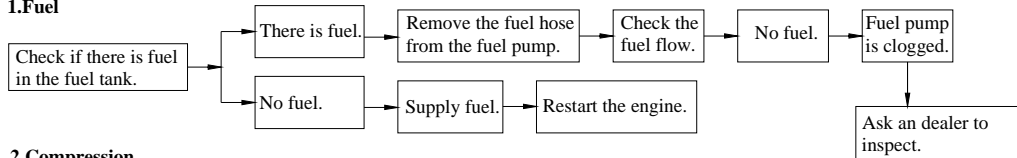


1. breathe pipe  
Reinstall oil level plug.

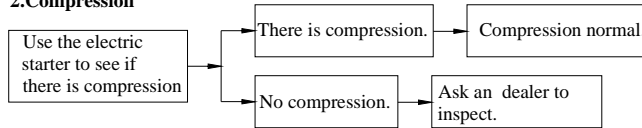
# Troubleshooting charts

## Starting problems or poor engine performance

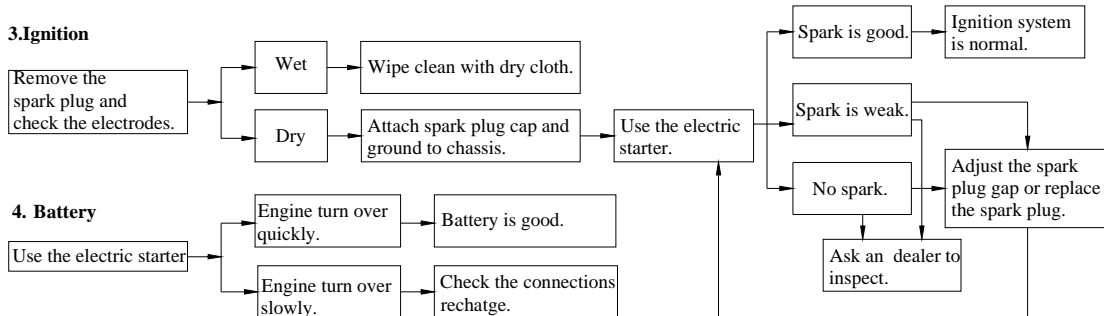
### 1. Fuel



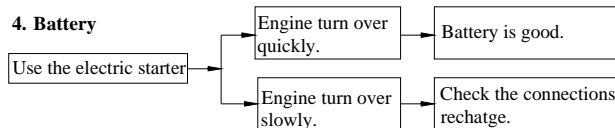
### 2. Compression



### 3. Ignition



### 4. Battery



## Engine overheating

### **! WARNING**

#### **POTENTIAL HAZARD**

Removing the radiator cap when the engine and radiator still hot.

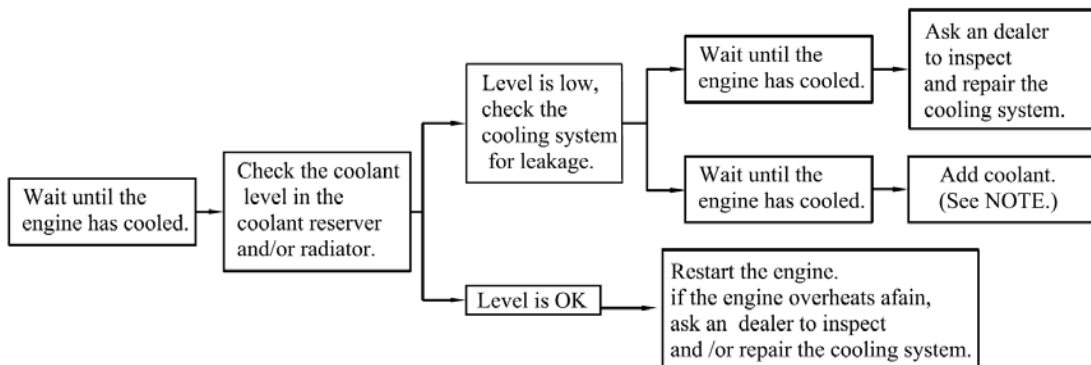
#### **WHAT CAN HAPPEN**

You can be burned by hot fluid and steam blown out under pressure.

#### **HOW TO AVOID THE HAZARD**

Wait for the engine to cool before removing the radiator cap. Always use a thick rag over the cap. Allow any remaining pressure to escape before completely removing the cap.





## **NOTE :**

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If it is difficult to get the recommended coolant, tap water can be temporarily used, provided that it is changed to the recommended coolant as soon as possible.

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## ■ MAINTENANCE CHART

The maintenance is very important, if you are not familiar with safe service practices and adjustment procedures, see your authorized dealer.

PERIODIC MAINTENANCE CHART						
A:ADJUST	INITIAL INSPECTION 10 HOURS OR 300 KM OR 300 km					
C:CLEAN	(The initial maintenance is very important and must not to be neglected)					
I:INSPECT		25 HOURS OR 750 KM				
L:LUBRICATE			50 HOURS OR 1500 KM			
R:REPLACE				100 HOURS OR 3000 KM OR 1 YEAR		
				200 HOURS OR 6000 KM OR 2 YEAR		
					TO BE PERFORMED BY	
PART/TASK						LEGEND

ENGINE							
Engine oil level (2)	EVERY RIDE				Customer	(2) Pre-ride inspection item. (3) Every 100 hours, check coolant strength (4) More often under severe use such dusty area, sand, snow, wet or muddy conditions.	
Engine oil and filter	R		R		Customer		
Valve adjustment	I. A			I.A	Dealer		
Engine mount fasteners	I			I	Dealer		
Air filter(2)		C(4)	R(4)		Customer		
Exhaust system	I			I	Dealer		
Spark arrester				C	Customer		
Condition of engine seals	I			I	Dealer		
Coolant (2)	I			I(3)	R		Customer
Cooling system pressure test	I				I		Dealer
radiator condition/ cleanliness (radiator fins) (4)	I		I				Customer

ENGINE MANAGEMENT SYSTEM						
A:ADJUST	INITIAL INSPECTION 10 HOURS OR 300 KM OR 300 km					
C:CLEAN	(The initial maintenance is very important and must not to be neglected)					
I:INSPECT	25 HOURS OR 750 KM					
L:LUBRICAT E	50 HOURS OR 1500 KM					
R:REPLACE	100 HOURS OR 3000 KM OR 1 YEAR					
	200 HOURS OR 6000 KM OR 2 YEAR					
	TO BE PERFORMED BY					
PART/TASK						LEGEND
SUSPENSION						
Trailing arms				I		Dealer
Trailing arm bearings	I				I	Dealer
Shock absorbers			I			Dealer
A-arms			I,L			Customer
Ball joints		I				Dealer

BRAKES							
Brake fluid (front and rear)(2)	I	I			R	Customer / Dealer	(2) Pre-ride inspection item.
Brake pads		I(4)				Customer	(4) More often under severe use such dusty area, sand, snow, wet or muddy conditions.
Brake system (discs, hoses, etc.)				I		Customer	
BODY /FRAME							
Engine compartment	I,C		I,C			Customer	(4) More often under severe use such dusty area, sand, snow, wet or muddy conditions.
Frame				I		Dealer	
Chassis fasteners			I			Customer	
Seat fasteners	EVERY RIDE					Customer	

# CLEANING AND STORAGE

## CLEANING

Frequent, though cleaning of your vehicle will not only enhance its appearance but will improve its general performance and extend the useful life of many components.

1. Before cleaning the vehicle:
  - a. Block off the end of the exhaust pipe to prevent water entry. A plastic bag and strong rubber band may be used.
  - b. Make sure the spark plug and all filler caps are properly installed.
2. If the engine case is excessively greasy, apply degreaser with a paint

brush. Do not apply degreaser to the wheel axles.

3. Rinse the dirt and degreaser off with a garden hose. Use only enough pressure to do the job.

### **CAUTION :**

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**Excessive water pressure may cause water seepage and deterioration of wheel bearings, brakes, transmission seals and electrical devices. Many expensive repair bills have resulted from improper high pressure detergent applications such as those available in coin-operated car washers.**

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4. Once the majority of the dirt has been hosed off, wash all surfaces with warm water and mild, detergent- type soap. An old toothbrush or bottle brush is handy for hard-to-get-at places.

5. Rinse the vehicle off immediately with clean water and dry all surfaces with a chamois, clean towel or soft absorbent cloth.

6. Clean the seats with a vinyl upholstery cleaner to keep the cover pliable and glossy.

7. Automotive type wax may be applied to all painted and chrome plated surfaces. Avoid combination cleaner-waxes. Many contain abrasives

which may scratch the paint or protective finish. When finished, start the engine and let it idle for several minutes.

### **! WARNING**

#### **POTENTIAL HAZARD**

Operation with wet brakes after washing.

#### **WHAT CAN HAPPEN**

Wet brakes may have reduced stopping ability, increasing the chance of an accident.

#### **HOW TO AVOID THE HAZARD**

Test the brakes after washing. Apply the brakes several times at slow speeds to let friction dry out the linings.

## STORAGE

Long term storage 60 days or more of your vehicle will require some preventive procedures to guard against deterioration. After thoroughly cleaning the vehicle, prepare for storage as follows:

1. Fill the fuel tank with fresh fuel and add the specified amount of Fuel Stabilizer and Conditioner or equivalent product. Operate treated fuel through the fuel system.

Specified amount:

1 oz of stabilizer to each gallon of fuel  
(or 7.5 cc of stabilizer to each liter of fuel)

## NOTE :

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Use of fuel stabilizer and conditioner eliminates the need to drain the fuel system. Consult a dealer if the fuel system needs to be drained instead.

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2. Remove the spark plug, pour about one tablespoon of SAE 10W30 or 20W40 motor oil in the spark plug. Ground the spark plug wire and turn the engine over several times to coat the cylinder wall with oil.
3. Lubricate all control cables.
4. Block up the frame to raise all wheels off the ground.



5. Tie a plastic bag over the exhaust pipe outlet to prevent moisture from entering.
6. If storing in a humid or salt-air atmosphere, coat all exposed metal surfaces with a light film of oil. Do not apply oil to any rubber parts or the seat covers.
7. Remove the battery and charge it. Store it in a dry place and recharge it once a month. Do not store the battery in an excessively warm or cold place (less than 0°C (30°F) or more than 30°C (90°F)).

**NOTE :**

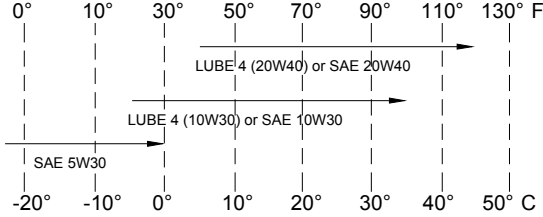
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Make any necessary repairs before storing the vehicle.

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# SPECIFICATIONS

Model	APU08E	APU08EL
<b>Dimensions:</b>		
Overall length	2905 mm (114.4 in)	3500 mm (137.8 in)
Overall width	1450 mm (57.1 in)	1480 mm (58.3 in)
Overall height	1,854 mm (73.0 in)	1800 mm (70.9 in)
Wheelbase	1,910 mm (75.2 in)	2580 mm (101.6 in)
Ground clearance	320 mm (12.6 in)	260 mm (10.2 in)
Minimum turning radius	3,900 mm (153.5 in)	3,900 mm (153.5 in)
<b>Basic weight:</b>		
With oil and full fuel tank	540.0 kg (1,190 lb)	640kg (1,410 lb)
<b>Engine:</b>		
Engine type	Double V cylinder ,four stroke, water - cooled, eight valves, EFI	
Displacement	800 ml	
Bore×stroke	91×61.5 mm (3.58×2.42 in)	
Compression ratio	10.3 :1	
Starting system	Electric starter	
Lubrication system	Wet sump	

Model	APU08E	APU08EL
<b>Engine:</b> Maximum power Maximum torque	44Kw/6000rpm 73N.m/5000rpm	
<b>Engine oil:</b> Type   Recommended engine oil classification   Quantity: Without oil filter cartridge replacement With oil filter cartridge replacement	 <p data-bbox="525 511 958 536">API Service SE, SF, SG type or higher</p> <p data-bbox="525 542 652 567"><b>CAUTION:</b></p> <p data-bbox="540 584 1161 781">In order to prevent clutch slippage (since the engine oil also lubricates the clutch), do not mix any chemical additives. Do not use oils with a diesel specification of "CD" or oils of a higher quality than specified. In addition, do not use oils labeled "ENERGY CONSERVING II" or higher.</p> <p data-bbox="525 795 882 826">2.00 L (1.76 Imp qt, 2.11 US qt)</p> <p data-bbox="525 874 875 905">2.20 L (1.93 Imp qt, 2.32 US qt)</p>	

Model	APU08E	APU08EL
<b>Final gear case oil:</b> Type Quantity:	SAE80 API GL-4 Hypoid gear oil 0.25 L (0.22 Imp qt, 0.26 US qt)	
<b>Differential gear case oil:</b> Type Quantity:	SAE80 API GL-4 Hypoid gear oil 0.32 L (0.28 Imp qt, 0.34 US qt)	
<b>Radiator capacity (including all routes):</b>	2.50 L (2.20 Imp qt, 2.64 US qt)	
<b>Fuel:</b> Type Fuel tank capacity	UNLEADED GASOLINE ONLY 27.0 L (5.9 Imp gal, 7.14 US gal)	
<b>Spark plug:</b> Type/manufacturer Spark plug gap	DCPR7E (NGK) 0.7-0.8 mm (0.029-0.031 in)	
<b>Transmission</b> Primary reduction system Secondary reduction system  Final stage system	CVT ( reduction ratio: 0.71~3.1 ) Gear ( reduction ratio:    low            5.29 High            2.886 Reverse        5.087 Shaft drive ( reduction ratio: 3.667 )	
Periodic oil change	0.4L (0.35 Imp qt, 0.42 US qt)	

Model	APU08E	APU08EL
<b>Tire:</b> Type Size            front rear	Tubeless 25 × 8-12NHS 25 × 10-12NHS	
Brakes System Type            front Rear Operation	Front and rear unified Dual disc brake Dual disc brake Foot operation	
<b>Suspension:</b> Front suspension Rear suspension	Double wishbone Double wishbone	
<b>Shock absorber:</b> Front shock absorber Rear shock absorber	Coil spring/oil damper Coil spring/oil damper	
<b>Electrical:</b> Ignition system Generator system Battery type Battery capacity	ECU A.C. magneto Colloid free maintenance battery 12VDC 34Ah	

Model	APU08E	APU08EL
Headlight type Type	Krypton bulb	
Bulb voltage, wattage×quantity		
Headlight	12V35W×2	
Tail/brake light	12V5W/21W×2	

## Electrical schematic

AP8000 CIRCUIT CHART

