

OWNER'S MANUAL
RAIDER EXTREME 1100D



DAZON 90-DAY WARRANTY

DAZON warrants the engine and drive train of this vehicle for a period of 90-days. This warranty covers repairs needed to correct defects in materials or workmanship.

WHAT YOU MUST DO.

Your selling dealership must register your vehicle by sending your warranty registration form upon purchase of the vehicle. You must properly use maintain and care for the vehicle as outlined in the DAZON owner's manual. You must maintain a record of the vehicles service history. Periodic service and inspection are considered regular maintenance and are not considered as warranty.

WHAT YOUR DEALER MUST DO.

All warranty repairs will be made at no cost to you for parts as related to the defect. All parts will be replaced with genuine DAZON parts only.

WARRANTY PERIOD

The warranty is effective as listed below from the date of purchase by the original owner. All engine, drive train, and factory defects will be covered for a period of 90-days.

WHAT IS NOT COVERED

- Any damage resulting from negligence of periodic maintenance.
- Any damage which results from repairs, adjustments, or maintenance operations that do not follow those specified by DAZON.
- Any damages caused by collision or improper use.
- Any damages caused by overloading or operating outside of design specifications.
- Any damages which result from non-genuine parts or accessories, fuel or fluids not specified by DAZON.
- Any damages that result from modifications made to the vehicle to increase performance.
- Any damages that result from the passage of time such as fading, peeling or other deterioration caused by outside elements.
- Sensational phenomena that do not affect performance or function of the product such as engine noise, vibration or seepages.
- Consumable replacement parts damaged by normal wear. Such as spark plugs, drive chains, belt drives, air cleaner elements, brake shoes, cables, fuses, oils, coolants and tires.
- Any damages caused by improper storage or transport.
- Any damages caused by natural disasters such as fires, floods, collision or theft.
- Incidental or additional expense incurred for making any claims such as those for towing or transporting the vehicle to a service dealer.

THIS WARRANTY SUPERCEDES ALL OTHER WRITTEN, IMPLIED, OR EXPRESSED WARRANTIES FOR 1100CC MODEL.

Contents [Attachment: Wiring Diagram]

1. Foreword.....	5
2. A Few Words about Safety.....	6
3. Important Safety Information.....	7
4. Safety Labels.....	10
5. Are You Ready to Drive?.....	11
6. Is Your Vehicle Ready to Drive?.....	15
7. Safe Driving Precautions.....	16
8. Components location.....	20
9. Adding oil before driving.....	40
10. Operation instruction.....	44
11. Pre-drive instruction.....	53
12. Maintenance & service instructions.....	55
13. Battery.....	71
14. Storage instruction	77
15. Periodical Checks and Services.....	78
16. Specifications.....	80
17. Buggy wiring diagram.....	85

FOREWORD

Thank you for choosing our double/single-seat BUGGY. We hope you will have fun with it. Before starting operate the BUGGY, please read through this Owner's Manual carefully as it contains important safety and maintenance information. Failure to follow the warnings contained in this manual can result in serious injuries.

Be sure to follow the recommended maintenance schedule and service your vehicle accordingly. Preventive maintenance is extremely important to the longevity of your BUGGY.

Beginners should drive this BUGGY in a large open area to practice handling this BUGGY. Wear protective gears all the time when driving or riding this BUGGY.

We hope you will have a pleasant experience with our products and thanks again for choosing DAZON.

A FEW WORDS ABOUT SAFETY

In order to keep everyone safe, you must take responsibility for the safe operation of your BUGGY. To help you make informed decisions about safety, we have provided operating procedures and other information on labels in this manual. This information alerts you to potential hazards that could hurt you or others. Please take a few minutes to read it.

It is not practical or possible to warn you against all hazards associated with operating or maintaining your BUGGY, so you must use your own good judgments.

You will find important safety information in a variety of forms, including:

- ★ Safety Labels -----on the BUGGY;
- ★ Safety Messages ----- preceded by a safety alert symbol and  one of the two signal words "WARNING" or "CAUTION";
- ★ The meaning of these signal words :
WARNING -----Physical harm may result from the failure to follow the instructions that are described within the labels;
CAUTION----- Damages to your BUGGY and possible subsequent personal injuries or death could result from the failure to take proper precautions described within the labels;
- ★ Safety Headings-----such as Important Safety Reminders or Important Safety Precautions;
- ★ Safety Sections-----such as Buggy Safety;
- ★ Instructions-----about how to use this BUGGY correctly and safely.
- ★

IMPORTANT SAFETY INFORMATION

Your BUGGY will provide you with many years of service and pleasure, providing you take responsibility for your own safety and understand the challenges you will meet while driving.

There is much that you can do to protect yourself when driving your BUGGY. You'll find many helpful recommendations throughout this manual. The following are a few of the most important ones.

Always Wear a Helmet

Facts have proven that helmets can significantly reduce the quantity and severity of head injuries, so when you drive your BUGGY, please always wear a DOT approved motorcycle helmet. We also recommend that you wear approved goggles, sturdy boots, durable gloves and other protective gear.



Drive Off-Road Only

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

Take Time to Learn & Practice

Even if you have driven other buggies, you still should take time to become familiar with how this BUGGY works. Practice in a safe area until you have built your skills and gotten accustomed to the size and weight of this Buggy.

Be Alert to Off-Road Hazards

The terrain can present a variety of challenges. Continually "read" the terrain for unexpected turns, drop-offs, rocks, ruts and any other hazards. Always keep your speed low enough to allow time for seeing and reacting.

Drive within Your Limits

Pushing limits is another major cause of BUGGY accidents. Never drive 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 to drive safely.

Don't Drink and Drive

Alcohol and drive never mix. Even one drink can reduce your ability of responding to changing conditions, and every additional drink can lengthen and worsen your reaction time. Don't drink and drive.



Don't Drive at Night

At night your visibility and judgment can be greatly reduced, so driving at night is dangerous and can terribly increase chances of accidents.

Never Drive Indoors

The exhaust from the engine contains a tasteless, odorless but poisonous gas called carbon monoxide. For the health of your family, please don't drive your BUGGY in your lovely house.

Keep away from Moving Parts

You should never place your hands or any other parts of your body near any moving parts of your BUGGY. Failure to adhere to this warning will cause physical harm to your body.

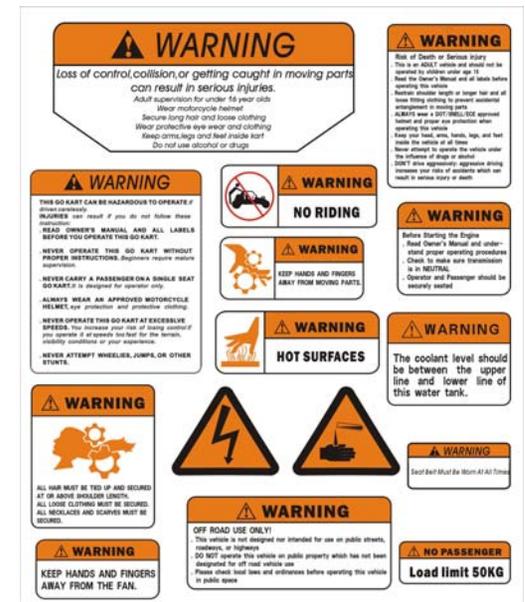
Avoid Skidding or Sliding

The terrain surface can be a major factor affecting turns. Skidding or sliding a turn is more likely to occur on slippery surfaces such as snow, ice, mud and loose gravel.

If you skid or slide on ice, you may lose all directional controls. To avoid skidding or sliding on slippery terrain surfaces, you should keep your speed low and drive carefully.

SAFETY LABELS

The labels should be considered permanent parts of your BUGGY. If a label comes off or becomes difficult to read, please contact your dealer for warning label replacements.



ARE YOU READY TO DRIVE?

Before each drive, you need to make sure that you and your BUGGY are both ready to drive. To help you be prepared, this section discusses how to evaluate your driving readiness, what items you should check on your BUGGY, and how to adjust your BUGGY for your comfort, conveniences and safety.

Before you drive your BUGGY for the first time, we urge you to:

- Carefully read this owner's manual and the labels on your BUGGY;
- Make sure that you understand all the safety messages;
- Learn how to operate all the controls on your BUGGY;

Before each of your drive, we urge you to be sure that:

- You feel well and you are in good physical and mental conditions;
- You are wearing a DOT approved motorcycle helmet (with a chin strap tightened securely), approved goggles and other protective gear;
- You don't have any alcohol or drugs in your body system.

Protective Apparel

For your safety, we strongly recommend that you always wear a DOT approved motorcycle helmet, approved goggles sturdy boots, durable gloves, long pants and long-sleeved shirt or jacket whenever you drive.

Although complete protection is not possible, wearing proper protective apparel can reduce the chances of injuries when you drive.



The following suggestion will help you choose the proper driving gear.

1. Helmets and Eye Protection Gear

Your helmet is your most important driving gear because it offers the best protection against head injuries. Your 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 the helmet with a DOT (Dept. of Transportation) sticker.

Always wear a face shield or a pair of goggles to protect your eyes and vision.



2. Additional Driving Gear

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

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

WARNING

- **Operating this BUGGY without wearing a DOT approved motorcycle helmet, eye protection gear, or any protective apparel could increase your chances of head and/or eye injuries, and even possibly death in the event of severe accidents.**
- **Always wear a DOT approved motorcycle helmet, an eye protection gear (goggles or a face shield), a long-sleeved shirt or jacket, gloves, boots and long pants.**

Driver Training

Developing your driving skills is an on-going process. Even if you have driven other Buggies, you still need take time to become familiar with how this BUGGY works. Practice driving this BUGGY in a safe area to build your skills. Don't drive on rough terrain surfaces until you've gotten accustomed to all the controls on this BUGGY, and felt comfortable with its size and weight.

WARNING

- **Operating this BUGGY without proper instructions could increase your risks of accidents that could lead to serious injuries, or even death.**

No Alcohol or Drugs

Alcohol, drugs and Buggies never mix. Even a small amount of alcohol can impair your ability to operate your BUGGY safely. Likewise, drugs, even prescribed by your doctor, can be dangerous when you're operating your BUGGY. Consult your doctor for the assurance that it is safe to operate your BUGGY after taking some kind of medication.

**WARNING**

- **Operating this BUGGY after consuming alcohol or drugs can seriously affect your judgments, cause you to react more slowly, affect your balance and perception, and even could result in serious injuries or death.**
- **Never consume alcohol or drugs before or while operating your BUGGY.**

Recommendation

It is strongly recommended that no one under the age of 18 be permitted to operate this BUGGY. A child driving this BUGGY that is not recommended for his/her age could lose BUGGY control, resulting in severe injuries or even death.

IS YOUR VEHICLE READY TO DRIVE?

Before each of your drive, it is important to inspect your BUGGY and make sure that any problems you've found have been corrected. A pre-drive inspection is a must, not only for safety, but also because a breakdown, or even a flat tire, can be a major inconvenience.

If your BUGGY sank into bunker, try to shift the gear for and backward to reverse position and slightly step on the throttle pedal, if the wheels do not get out from the bunker, then stop stepping on the throttle pedal and call the service centre. Excessively stepping on the engine may cause the engine overheat or damage,

If your BUGGY has overturned or has been involved in a collision, please don't drive it until an authorized service center has inspected it. There may be damages or other problems you can't see.

 **WARNING**

- **Improperly maintaining your BUGGY or failing to correct a problem before driving can cause a crash in which you can be seriously hurt or even killed.**
- **Always perform a pre-drive inspection before each of your drive, and correct any problems.**

SAFE DRIVING PRECAUTIONS**Off-Road Use Only**

Your BUGGY and its tires are designed and manufactured for off-road use only, not for pavements. Driving on pavements can affect your handling and controlling. Don't drive your BUGGY on pavements.

 **WARNING**

- **Operating your BUGGY on paved surfaces may seriously affect your handling and controlling of your BUGGY, and may even cause your BUGGY to go out of control.**
- **Never operate your BUGGY on any paved surfaces, including sidewalks, driveways, parking lots and streets.**

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.

Never drive your BUGGY on public streets, roads or highways, even if they are not paved. Drivers of street vehicles may have difficulty in seeing and avoiding you, which could easily lead to collisions. In many states, it is illegal to operate BUGGIES on public streets, roads and highways.

 **WARNING**

While we want to shift the gear from forward to reverse or vice versa, the gear shifter should go back to neutral position first and do not accelerate the engine to high speed (i.e. Do not change gear when the engine is running at a high speed), otherwise, the gear mechanism will be damaged seriously!

Keep Your Hands and Feet on Controls

Always keep both of your hands on the steering wheels ,and both of your feet on the foot controls when driving your BUGGY. It is important to maintain your balance and control your BUGGY. Removing your hands or feet away from the controls can reduce your ability of controlling your BUGGY.

 **WARNING**

- **Removing your hands from the steering wheels, or your feet from the foot controls during operation, can reduce your ability of controlling your BUGGY, or cause you to lose your balance and fall off your BUGGY.**
- **During operation, always keep your both hands on the steering wheels, and your both feet on the foot controls of your BUGGY.**

Control Speed

Driving at excessively high speed increases the chances of accidents. When choosing a proper speed, you need to consider the capability of your BUGGY, terrain, visibility and other operating conditions, plus your own skills and experiences.

 **WARNING**

- **Operating your BUGGY at excessively high speed increases your chances of losing control, which can easily result in an accident.**
- **Always drive at a speed that is proper for your BUGGY, terrain, visibility and other operating conditions, plus your own skills and experiences.**

Be Careful 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 the visibility is limited. (Sometimes it's difficult to gain the reaction time before you see obstructions like hidden rocks, bumps, or holes with enough time to react.)

 **WARNING**

- **When driving your BUGGY on unfamiliar terrain, failure to be especially careful could cause your BUGGY to go out of control or overturn.**
- **When operating your BUGGY on unfamiliar terrain, always drive slowly, always be especially careful, and always be alert to changing terrain conditions.**

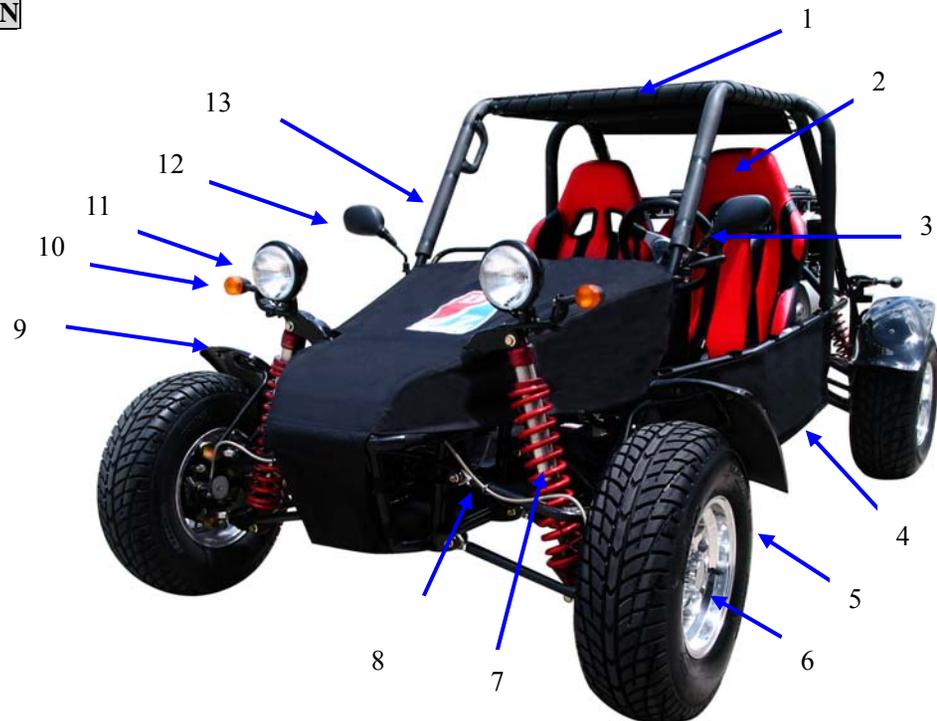
Never drive past the limit of visibility. Maintain a safe distance between your BUGGY and other off-road vehicles. Always exercise your cautions and use your extra care on rough, slippery and loose terrain.

 **WARNING**

- **Failure to use your extra care when operating on excessively rough, slippery or loose terrain could cause loss of traction or vehicle control, which could result in accidents, including an overturn.**
 - **Don't operate on excessively rough, slippery or loose terrain until you've learned and practiced the skills necessary to control your BUGGY on such terrain.**
 - **Always be especially cautious on these kinds of terrain.**
 - **Always keep all wheels on the ground. Attempting wheelies, jumps, and any other stunts increases the chances of accidents, including an overturn.**
- Never attempt stunts, such as wheelies or jumps. Don't try to show off.**

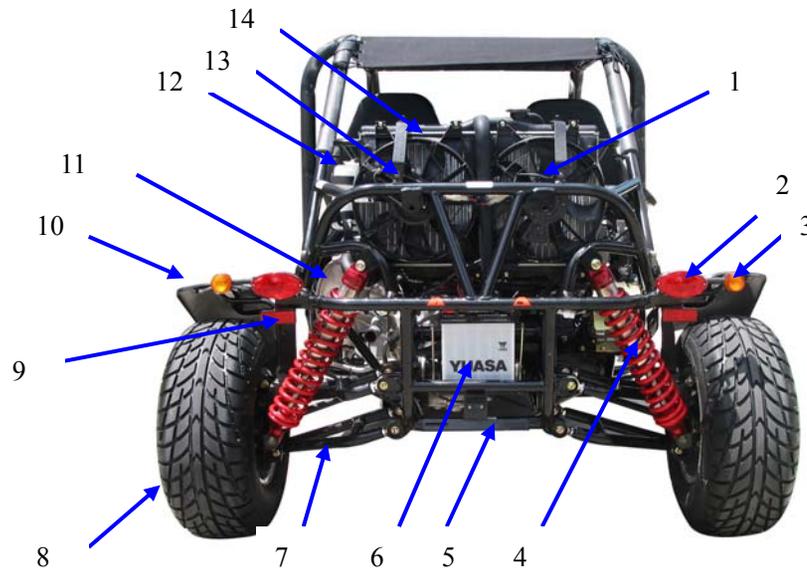
COMPONENTS LOCATION**A. Front view :**

1. Overhead canopy
2. Bucket seat.
3. Steering wheel.
4. Side canvas
5. Front wheel
6. Wheel rim
7. Front shock absorber
8. Brake cable.
9. Front mudguard
10. Front turning signal
11. Front headlight
12. Rear mirror
13. Brush guard bar



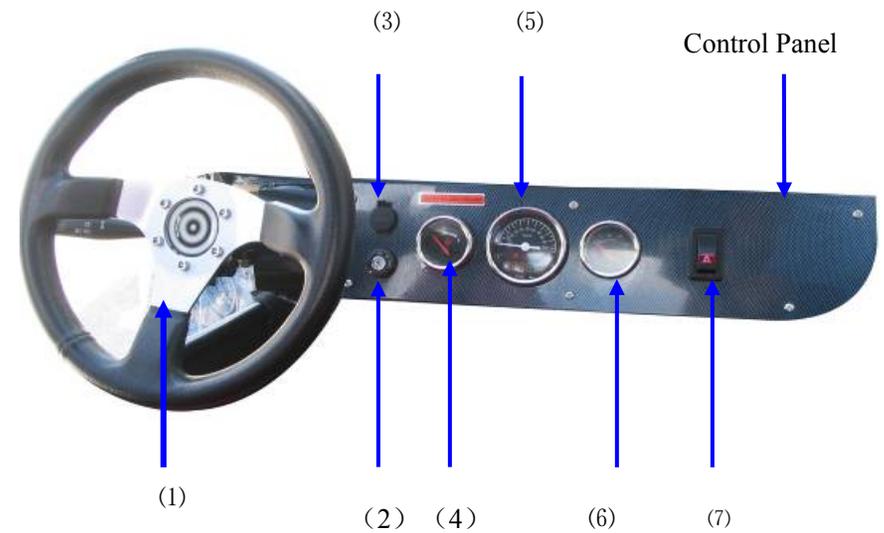
B. Rear view :

1. Rear carrier.
2. Tail lamp
3. Rear turning signal
4. Rear shock absorber
5. License plate bracket.
6. Battery.
7. Lower A-Arm
8. Rear tires.
9. Reflector
10. Mudguard
11. Muffler.
12. Supplementary water tank
13. Cooling fan
14. Radiator



CONTROL PANEL Consists of the following features :

- (1) Steering wheel
- (2) Ignition switch (Key lock)
- (3) Cigarette ignition housing
- (4) Fuel level gauge
- (5) Multi-function gauge
- (6) Water temperature gauge
- (7) Parking alarm flicker



STEERING WHEEL

Below the steering wheel, there is an anti-theft lock on the right hand side. Make sure it is locked when the vehicle is to be left unattended. Use the same key and turn clock-wise to lock and anti-clockwise to unlock the steering wheel.

Anti-theft lock



IGNITION SWITCH

Insert the key into the ignition switch, turn the key clockwise, and release the key when the engine starts. The engine will warm up within 5 minutes, and the engine choke will close automatically and operate at formal RPM.

Warning: Once the engine is started, the key will move automatically to "ON" position. Don't crank the starter more than 5 seconds at one time. The ignition switch on the panel is having OFF、ON and START. "OFF" refers to kill the engine and stop the vehicle. "ON" refers to ignition of electrical items and ignition system. "START" refers to start the motor and engine.



Ignition switch

WARNING

- Do not turn the key to "ON" position if you do not have intention to start the engine, Otherwise the battery will become flat.
- * Never pull out the key during driving, otherwise, the vehicle will loss control.

KEYS

The same key can be used for ignition and anti-theft lock.

Never leave both keys unattended on the unit.

Keep the spare key in a safe place but not on the buggy.

Change the key if it is rusty.



CIGARETTE IGNITION HOUSING

Only housing is provided. The cigarette ingitor is an optional item which needs to be connected with wire.

**FUEL LEVEL GAUGE**

The red needle will show the amount of petrol remaining in the fuel tank. The fuel level gauge will not work when the ignition switch is turned off. After filling petrol into the fuel tank, start the engine, the red needle will move gradually to indicate the amount of fuel being filled. It is normal to see the needle flirting during accelerating, turning or applying brake due to vibration of fuel inside the fuel tank.

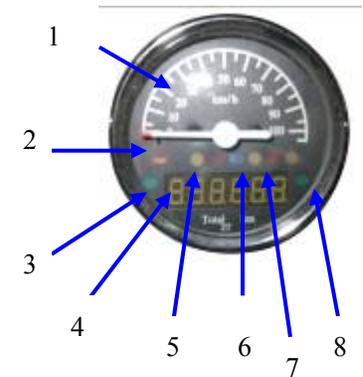


Fuel tank capacity : 30 Liters

NOTE : NEVER EXCEED 30 LITRES TO AVOID OVERINFLATED AIR INSIDE THE TANK.

MULTI-FUNCTION METER. It consists of the following features :

1. Tachometer ---- The needle above the digital display indicates the running speed of the running buggy
2. Battery charging lamp ---- If the battery power is weak, the lamp will be on.
3. Left turning signal lamp ---- The lamp will be on when the turning Signal is applied.
4. Odometer ----- The digital display at the bottom of the speedometer records accumulated mileage/kilometer that the buggy has run;
5. Engine oil warning lamp ----- When engine oil falls below the required level, the lamp will be on.
6. Hydraulic oil level indicator ---- Shows the level of hydraulic oil.
7. Front high beam lamp---- The indicator will be on when you turn on the headlight.
8. Right turning signal lamp ---- The lamp will be on when the turning Signal is applied.



WATER TEMPERATURE GAUGE

The red needle will indicate the temperature of the engine. It will not move if the engine is off. If the needle moves to the red zone, that means engine is overheating and you need to stop the engine for cooling. If the engine always get heated, check the water tank and water pipe condition.



MULTI-FUNCTION LEVER It consists of the following features :

1. **Horn button** ---- The horn button is at the tip of the multi-function lever. [As per arrow A]. When you need to apply horn, just press the button disregarding whether the lever is at the On/Off or any position.

DO NOT apply horn unnecessary to avoid sound pollution.

A



2. On/Off switch ----- Turn multi-function lever anti-clockwise for OFF [Arrow B] and clockwise for switching on other functions [Arrow C].



3. Fog lamp switch ---- Turn the multi-function lever clockwise by one click, the fog lamp will be on.



4. Low-beam lamp switch ---- Press downward the multi-function lever for low-beam light. [As per arrow D]

5. High-beam lamp switch----- Push upward the multi-function lever for high-beam light [As per arrow E]



6. Dipped lighting ----- Push slightly and repeatedly upward [As per Arrow F] the multi-function lever for giving warning signal to the vehicles coming from opposite direction.

F



7. Left /right turning signal ----- Push forward the multi-function lever for right turning signal [Arrow G]. Push backward for left turning signal. [Arrow H]

G

H

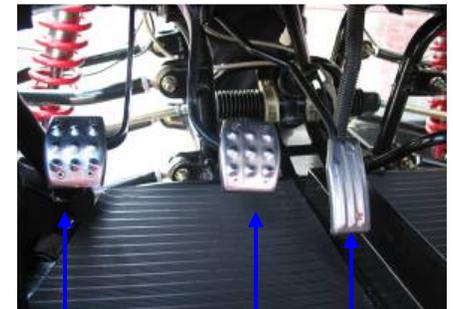
**WARNING**

- * Check all the lighting condition before driving the buggy in the night.
- * Never drive without good lighting. Never risk your life.

BRAKE PEDAL, CLUTCH PEDAL, THROTTLE PEDAL

Check the pedals condition and make sure they can resume to its original position after every movement of depressing.

1. Clutch pedal ----- Must depress the pedal all the way while changing gear.
2. Brake pedal ----- Depress the pedal all the way down if urgent brake is required.
3. Throttle pedal ----- Depress the pedal according to the need Of acceleration.



Clutch pedal

Brake pedal

Throttle pedal

Note :

- * Nothing shall be placed below the pedals, otherwise it will obstruct the driving and cause danger to your life.
- * Not to wear slippery shoes.

REAR VIEW MIRRORS

Adjust both left and right rear view mirrors to the desired angle before start driving the vehicle. If the rear view mirror is defective, it must be replaced immediately.



FRONT HEAD LAMPS [FOG LAMP]

The headlamps are screwed onto the lamp bracket. There are two bulbs inside the lamp, one is headlight, the other is flog light. The switch is on the multi-function lever.

Voltage of each lamp = 12 watts

Headlight lamp

Flog light



TURNING SIGNAL LAMPS

Both left and right turning signals are screwed on the bracket.

For safety reason, not to change the lamps to other color.

Capacity of turning signal lamp = 5 watts



TAIL LAMP [BRAKE LAMP]

Tail lamps are installed at left and right of the rear frame. There are two bulbs inside, one is for brake light, the other is normal light. Make sure both lights are in working condition before you drive the vehicle in the night. Capacity of tail lamp = 5 watts



LICENSE PLATE LAMP

The license plate lamp can be opened by removing the two nuts.

Capacity of license plate lamp = 5 watts



SEAT ADJUSTMENT

The seat must always be securely adjusted to the positions which affords the best control of the foot, pedals, steering wheel for the operator.

- 1) Pull the seat adjustment handle upward to disengage the seat slide;



- 2) Move the seat forward or backward to the desired position;
- 3) Be sure that the seat adjustment handle snaps back into place and that the seat is locked into position.

Note : The seat upright angle is fixed, it cannot be adjusted



WARNING

- * Before attempting to adjust the seat, ensure that the engine is not running
- * Never operate your BUGGY when the seat is not securely adjusted. Never adjust the seat when you are driving the BUGGY. Otherwise, it could result in personal injuries or loss of life

SAFETY BELT

Each single bucket seat comes with a safety belt. For safety reason, both driver and passenger MUST put on safety belt provided on each seat. Inspect and test the safety belt before you drive the BUGGY.



- 1) Check and make sure the terminals of the safety belt are firmly affixed on the frame behind the seat;



- 2) Put on the vertical [across the chests] safety belt, tighten by pulling the strap downward;



- 3) Put on the horizontal [across the waist] safety belt, tighten by pulling the strap sideward;



- 4) Release the safety belt by pressing the red button on the buckle with the left hand and pull out the hook from the buckle with the right hand.

 **WARNING**

- * **Never let safety belt touch the chassis, it might be pulled away by the tree branches during speeding in the forest.**
- * **Do not modify the safety belt without the consent of the safety belt maker.**
- * **If the safety belt is too long, defective or cannot be tightened, it must be replaced immediately.**
- * **Never ride on the BUGGY without good safety belt.**

MAINTENANCE OF SAFETY BELT

- 1) Make sure the buckle is free of dust all the time.
- 2) Refrain from oil, battery acid and other chemical;.
- 3) Clean it with soap regularly.

HAND BRAKE

The hand brake is installed between the seats. Please refer to "Operating Instruction" for operating hand brake.

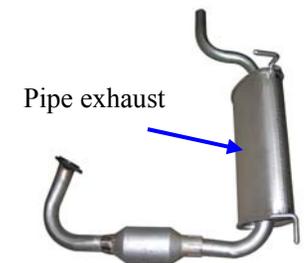


MUFFLER

The muffler is connected to exhaust pipe with noise control of <80 dba.

[EXHAUST PIPE]

The exhaust pipe mouth shall not point to the engine, otherwise the engine will get overheated.



THREE-WAY CATALYTIC CONVERTER

Three-way catalytic converter

Leaded fuel is harmful to three-way catalytic converter and lighting system. Use unleaded fuel only.



REAR CARRIER

Limited Loadage

The limited loadage on the rear rack is 40kg or 88 lbs.

NOTE :

Never exceeds the limit, otherwise the vehicle will be overweighed at the rear and cause the vehicle over turn.

Rear carrier



FUEL TANK

Fuel tank is situated behind the seats.

Electronic Controlled Unit [ECU] is mounted on the top of the fuel tank.

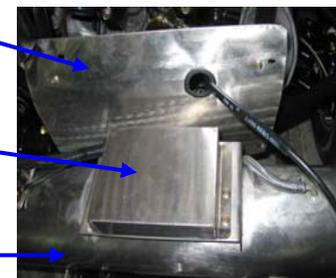
A piece of heat isolating metal plate separates the fuel tank from the engine.

FUEL TANK CAPACITY = 30 LITRES

Heat isolating plate

ECU

Fuel tank



The fuelling mouth is raised to a higher level at the right brush guard.

Following steps must be observed during fuelling :

- 1) Turn off the engine;
- 2) Open the fuel tank cap in anti-clockwise direction.
- 3) After fuelling, close the fuel tank cap in clockwise direction.



Fuel cap

Type of petrol

Only high quality unleaded petrol is allowed. The quality of petrol will affect the functioning and life of engine. The engine will burn if the petrol octane rating is too low. **Recommended grade : Unleaded #95**

WARNING

- * Petrol is highly inflammable, Smoking is strictly prohibited during fuelling.
- * Do not use leaded petrol, otherwise it will dam

WHEELS

Off-road tires for off-road vehicle [Picture A].

On-road tires for on-road vehicle [Picture B].

Tubeless tires are used for both On-road & Off-road tires.

Both front and rear wheels are having different sizes:

Front tires = 25 x 8-12

Rear tires = 25x 10-12



A



B

Size of wheel rim : Front 12x6 ; Rear 12 x7

Note : Special sand tire is to be used if the buggy is to run on desert for long hours.

ADD OIL BEFORE DRIVING

Before starting to operate the engine, add appropriate amount of specified grade of oil into the brake, engine, transmission box, coolant.

BRAKE OIL

Brake oil is highly water-absorptive. The brake effect will be affected when too much water goes into the brake oil. Amount of brake oil shall fall between the upper limit marked with "MAX" and lower limit marked with "MIN".

The following regular oil replacement should be observed.

Oil replacement interval period	Volume
Normal condition : Every 3000 km or 3 months;	0.45 L
Bad condition : Every 2000 km or 2 month	

Grade of oil : DOT-3



WARNING

- * Clean up all the dirt on the oil pump cap before adding brake oil.
- * Avoid contact with skin or eyes.
- * Antidote : External – flush with water; Internal – call physician immediately;
- * Brake oil will damage the paint of frame.

Gearbox gear oil

The gear box is situated at the side of the engine.

Inspect gear oil only when the gear box is cold down and the vehicle is turned off on a flat ground. Open the oil drive back cap of the oil inlet and check the oil level inside the gear box. The oil level shall reach the bottom neck of the oil inlet.

Grade of gear box oil : 85W/90

Below regular replacement shall be observed :



Oil replacement interval period	Volume of oil
Every 3 months or 5000 kilometer	2.11 L

 WARNING

- * **Never make oil replacement before the gearbox is cooled down.**
- * **For environment protection purpose, place a container below the oil drain hole.**

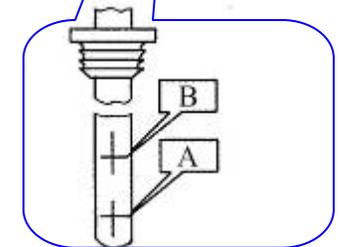
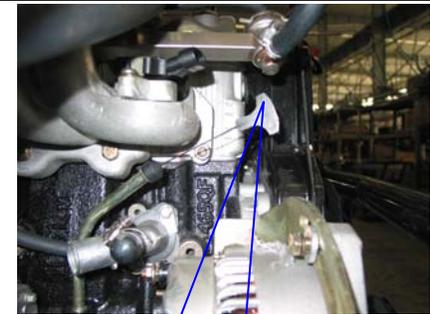
ENGINE OIL

Grade of engine oil : SF15W/40 [Summer]
SF10W/30 [Winter]

Amount of oil : 3 L

Steps for checking engine oil level :

1. Place the buggy in a level position..
2. Stop the engine, let all the oil flow back to the oil basin. [If the engine is cold, the flow of oil will be much slower].
3. Take out the oil dip rod and dry it with cloth, then put it fully back to the engine for a second and take it out again. Look for the position of oil, if it falls below Marking A, then top up to level B, but never exceed level B, otherwise, the oil consumption rate will increase and cause carbon residue and spark plug fouling.



Warning: Before operating your buggy for the first time, please be sure to add engine oil. Your vehicle uses SAE 15W/40 oil in summer and hot weather conditions, and 10W/30 in winter and cold weather conditions.

Engine Oil Capacity: The engine's rated capacity of engine oil is 3.5 qts, but your engine may only require 3 qts of oil as our engines are first tested at the factory before being packaged for transport. Following testing, the engine oil is drained before packaging, but a small amount may remain in the engine. For this reason, please first add 3 qts to the engine and check the level with the engine oil check stick to determine whether more oil is needed. Please do not overfill the engine oil. Do not exceed the maximum oil level indicated on the engine oil check stick.

Filling Method : Unscrew the engine oil cap located on top of the engine camshaft cover. Insert a clean funnel into the oil filling opening and slowly pour fresh engine oil into the camshaft cover. Oil will drain down into the engine. Once the recommended oil volume has been added, remove the funnel and replace and tighten the engine oil cap. Start the engine and let it idle for 30 seconds in order to distribute the engine oil throughout the engine. Turn off the engine and let the warmed oil drain back into the engine oil pan. Now check the oil level with the engine oil check stick. If the level is below the minimum marking, please add more oil to the engine until the proper level is reached.

***Note: Use a clean, dry cloth or paper towel to wipe the engine oil check stick before re-inserting it into the engine.**

OPERATION INSTRUCTION**[A] BEFORE YOU START THE ENGINE**

- ◆ Ensure no obstacle in front and behind the vehicle.
- ◆ Conduct the following routine check:
 - 1、 Check the engine oil level, add oil if required; check for oil leaks.
 - 2、 Turn the key to "ON" position ensure the ignition, all lightings and alarm system are working.
 - 3、 Check the tire conditions and pressure.
 - 4、 Adjust the seat to the desired position.
 - 5、 Adjust the angle of rear view mirrors.
 - 6、 Put on safety belt.
 - 7、 Check the brake condition.
 - 8、 Check the clutch condition by stepping on the clutch fully a few times.
 - 9、 Check the gear shift condition by stepping on the clutch and shift the gear lever to neutral, 1st, 2nd, 3rd, 4th, 5th and reverse position respectively. Ensure the shift gear is smooth
 - 10、 Check if the fuel line is smooth.

[B] STARTING THE ENGINE

1. Without pressing on the throttle pedal, insert the ignition key and turn the ignition switch clockwise.
2. Warm up the engine for 2-3 minutes after starting the cold engine.

Note :

- 1) Immediately after the engine starts, release the ignition switch to prevent damaging the starter motor.
- 2) Do not turn on the ignition switch while the engine is already running to prevent damaging the starter motor.
- 3) Do not repeatedly turn on the ignition switch if the engine fails to immediately start. Wait for 10 seconds before trying again. Next time, try turning the ignition switch with the throttle pedal slightly depressed.
- 4) In cold weather, warm up the engine for several minutes at idle speed. Then speed up after the operation temperature is reached.
- 5) In hot weather, avoid running the engine at idle speed for a long time. It may overheat the engine.
- 6) Do not leave your buggy alone after the engine is started.

[C] STARTING TO DRIVE

Test the controls to learn how to start, turn and stop.

Operate your Buggy slowly until you have been familiar with it.

After starting the engine, shift the gearshift lever from neutral to 1st gear by stepping on the clutch, release brake handle lever, then step on the accelerator and start to drive.

⚠ WARNING

When you are starting the buggy at a slope, do not release the brake handle lever until you have already shift the gearshift lever to 1st gear and ready to move the vehicle. Step slightly on the accelerator pedal and then release the brake handle lever.

[D] GEARSHIFT OPERATING INSTRUCTION

Whenever you need to change gear, always step on the clutch fully and shift the gear to the desired position at the same time. After changing gear, let go the clutch slowly and step on the throttle pedal.

Step on the clutch fully



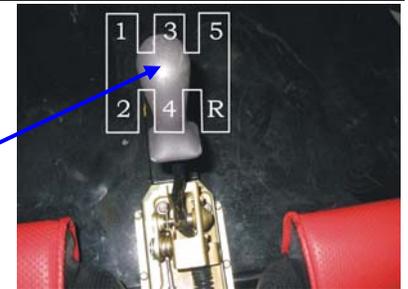
1st gear is used when you start to drive;

2nd/3rd gear is used when you want to drive on a slope;

4th gear is used when you want to make a left/right turn;

5th gear is used when you want to speed up;

Neutral



WARNING

- * **Never move the gear shift lever to reverse gear when the buggy is running, otherwise the engine and transmission will be damaged. Reduce speed before change to reverse gear.**
- * **Never step on the clutch when driving the buggy, otherwise, the clutch will be damaged.**

The turning radius of your BUGGY is small and agile, so the centrifugal force is very high when turning at high speed. When turning, you should slow down to a more controllable speed to prevent your BUGGY from rolling over.

Keep your heel on the floorboard for the proper pedal control, any attempt to turn sharply at high speed is dangerous, because the tires can easily catch an edge which can result in a rollover.

[D] STOPPING ENGINE

1. Turn off the engine for about 3-5 minutes at idle speed to cool down.
2. Release the throttle.
3. Turn off the ignition switch.

[E] BREAKING-IN OF NEW ENGINE

The breaking-in distance is roughly 1000 miles. During this period, please follow these instructions.

1. Run the engine according to the requirements for the engine break-in. Do not overwork the engine. Avoid keeping the throttle full-open.
2. Rotate the throttle slowly after starting the engine. Do not speed up or speed down suddenly.
3. Drive on smooth roads. Do not drive uphill or on rough roads for extended periods.
4. After approximately the first 500 miles of use, change engine oil and clean air cleaner screen. Change engine oil regularly after every 500 miles.

[F] BRAKE

The front & rear wheel of the buggy comes with diagonal intercrossing braking system. Both front and rear wheels are installed with brake disk. If any one of them fails to function, the other will perform as the brake. What you need to do is to depress harder on the brake pedal.

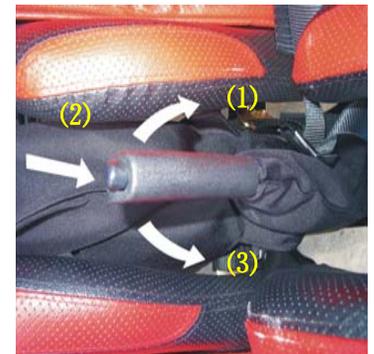
[G] BRAKE OPERATING SYSTEM

When the brake is applied, the rear wheels will be locked.

When the brake lever is pulled upward/ toward direction [1], the brake is applied and the rear wheels are locked;

Press the button [2] and depress the brake lever downward to [3] direction, the brake is released and the rear wheels become unlocked.

The brake lever must be depressed downward when you are ready to drive.



Note :

- 1) Braking effect will decrease when the brake mechanism over heats. Thus, apply 1st gear when going down the slope. Not to continuously depress on the brake pedal.
- 2) If the brake mechanism gets wet, the brake effect will be affected. Test the brake system after car washing or going through a pool of water by slightly depress on the brake pedal.
- 3) Maintain certain distance behind the front vehicle so that you have enough time to stop the vehicle.
- 4) Do not step on brake pedal unnecessarily otherwise, the brake lining and brake lining disc will be damaged.
- 5) Never drive the vehicle with the brake lever on.

Stop the buggy

- 1、 Depress brake pedal, pull the brake lever.
- 2、 When the Buggy is to be parked on a flat ground, shift the gear to neutral position。
- 3、 When the Buggy is to be parked on a slope with the vehicle facing downhill , shift the gear to reverse position.
- 4、 When the Buggy is to be parked on a slope with the vehicle facing uphill , shift the gear to 1st gear position。
- 5、 Turn the ignition key to “OFF” position then pull out the key.
- 6、 Lock the anti-theft lock below the steering wheel。
- 7、 Before you walk away, make sure the vehicle is not in a movable condition。

 **WARNING**

- * **Never park the vehicle near the flammable object.**
- * **Brake must be on when the vehicle is not in use.**
- * **Park the vehicle on a solid road surface.**
- * **Turn the wheels to left or right when the vehicle is to be parked on a slope.**

[H] POWER REDUCTION DEVICE

The power reduction device is available only on ON-ROAD model. It is situated at the cable of the rail frame .

With power reduction device, maximum engine speed = 3500r/min;

Without the device, maximum engine speed = 5500r/min.

The power reduction device



[I] *DRIVE UNDER DANGEROUS CONDITION*

Following must be observed when driving on water, snow,, ice, mud and sand:

- 1 Reduce speed, maintain safety distance behind the front vehicles.
- 2 Avoid sudden stop and big turning.
- 3 When apply brake, depress on the brake pedal a few times until the vehicle stops completely.
- 4 If stick in the mud or sand, apply 2nd gear and accelerate slowly, otherwise, the front wheel will be slippy.

 **WARNING**

- **Each time before starting the engine, check the throttle assembly to ensure that when you push the pedal all the way forward, the throttle assembly can work smoothly. When the pedal is released, the throttle assembly should return to the idle position automatically.**
- **Don't operate your BUGGY if the pedal or engine throttle linkage fails to return to the idle position.**
- **If you're unable to correct the problem through lubrication, adjustment or replacement of worn parts, please contact an authorized service center for assistance.**
-

PRE-DRIVE INSTRUCTION

- **Perform this pre-drive inspection every time before driving your BUGGY. If not, serious damages to your BUGGY or personal injuries to yourself may be caused.**

Engine Oil: Check for the engine oil level, and add oil if required; check for oil leaks; don't let any water go into the engine, otherwise the engine can't start;

Fuel: Check for the fuel level, and add fuel if necessary (but don't overfill); check for fuel leaks.

Brakes: Depress the rear brake pedal several times to see if it works properly, and check for the proper free play of brake pedal; adjust the brake pedal if necessary.

Tires: Check the tire conditions and pressures. Front Tire Pressure: 4 P.S.I./ Rear Tire Pressure: 7 P.S.I.

Drive Chain: Check for the chain conditions and tension; lubricate it if necessary.

Throttle: Check for the smooth operation; assure that the throttle "snaps" back to the idle position.

Engine Stop Button: Perform the engine stop button test; repair it if necessary.

Nuts, Bolts & Fasteners: Check all the nuts, bolts and other fasteners to see if they have been tightened to the specified condition; adjust them if necessary.

Brush Guard: Ensure that all the protective roll bars are in place.

Wheels: Check the wheels to see if all the axle nuts have been tightened and secured by cotter pins.

Steering: Check for the free operation of the steering and for any unusual looseness in any area.

Underbody & Exhaust System: Check for any dirt, vegetation or any other debris that could cause fire hazards or interfere with the proper operation of your BUGGY, and remove them.

Air Cleaner Housing Drain Tube: Check for carbon deposits in the drain tube; if necessary, clean the tube and check the air cleaner housing.

Leaks & Loose Parts: Walk around your BUGGY and look for anything that appears unusual, such as oil leak or a loose cable; repair or replace the concerned parts if needed.

Cable: Check the cable housing for wear and check the fittings for looseness; replace or tighten the concerned parts if needed.

MAINTENANCE & SERVICE INSTRUCTIONS

Following safety precaution must be observed while conducting regular maintenance and services :

1. Make sure the engine and entire vehicle is on OFF position.
2. Make sure the engine and exhaust pipes are cooled down.
3. To avoid possibility of explosion, always connect battery cable in the order specified.
4. Keep children away from the servicing area to avoid touching engine oil, grease and fuel.
5. Park the buggy on a flat ground, shift the gear to neutral position.
6. All flammable items or movement must be away from the engine to avoid accident.



The running engine may cause electric shock, pollution, or burn your hands and hurt the body.

[A] AIR CLEANER

The air filter is installed above the engine cylinder head.

Maintain regular service as follow :

Regular maintenance	Period
Cleaning	Every 1 month or 1500 kilometers
Replacement of filter	Every 3 months or 3000 kilometers



- 1) Open the cover, take out the paper filter for cleaning.
- 2) Replace the paper filter if it is too dirty to clean.

Note :

**The performance of engine will decrease if the air cleaner is dirty.
Service more often when running under dusty, sandy and muddy conditions.**

Paper filter



[B] ENGINE OVERHEATING

You should stop and check the buggy when the water temperature gauge indicates high temperature. Run the engine at idle speed for a few minutes then check whether the fan blade is running. If it is running and there is no heating gas coming out from the engine, let the engine continue to run at idle speed until the engine is cooled.

If the temperature does not drop when the fan blade is running, then stop the engine for cooling. When the engine is cooled, check the level of coolant. If the coolant level is low, check whether there is leakage at the water tank, rubber tube or water pump. If leakage is discovered, do not run the engine anymore and call for repair services.



The heating-gas coming out from the engine could burn the skin. NEVER open water tank cap when The heating gas is coming out. Stop the engine immediately for cooling and stay away from the buggy.

You may open the water tank cap when the hot-gas disappears.

[C] ENGINE MAINTENANCE

- 1) Daily Maintenance:
 - 1.1) Remove the dust and dirt on the surface;
 - 1.2) Check all the exterior fasteners at the joints, and fasten or replace them if necessary;
 - 1.3) Check for the oil leakage, and check the compression at the mating surface;
 - 1.4) Check the engine oil, and add some if necessary.



- Don't clean the element with gasoline or solvent of low flash point.
The oil level should be between the upper index line and the lower index line of the gauge.
- Remove the dust in the air cleaner element; replace the element if there is too much dust or any damp;
- Don't dip the element in water or oil. Don't apply any lubrication oil or any other oil on the element.

2) 50-Hour Maintenance:

- 2.1) Finish the daily maintenance;
- 2.3) Remove the carbon on the spark plug;
- 2.4) Clean the crankcase and replace the oil;
- 2.5) Clean the transmission box and replace the engine oil;
- 2.6) Clean up all the dirt on the cylinder body and cylinder cover fins
- 2.7) Remove the oil-drain bolt below the engine;
- 2.8) Drain out all the engine oil.



Note: When draining the oil, the engine should be at room temperature, which can ensure the quick and complete draining.

3) 100-Hour Maintenance:

- 3.1) Finish the 50-hour maintenance;
- 3.2) Remove the cylinder cover and cylinder body, and clean out the carbon on the cylinder cover, cylinder body, piston top and in/ex valve, etc.;
- 3.3) Clean the inner part of the crankcase, and rotate the crankshaft during the cleaning to clean the main bearing and connecting rod big end needle bearing;

3.4) Check if the fixed screw of the generator stator is loose;

3.5) Keep the connectors and electric parts dry and clean.

4) 150-Hour Maintenance:

4.1) Finish 100-hour maintenance;

4.2) Clean the crankcase and replace oil;

4.3) Check if there is any leakage on the oil seals; replace the oil seals if necessary.

5) 300-Hour Maintenance:

5.1) Finish 150-hour maintenance;

5.2) Check if the parts of the clutch and the transmission are normal; adjust or replace the parts if necessary.

500-Hour Maintenance:

6.1) Finish 300-hour maintenance;

Disassemble the engine (except the crankshaft connecting rod); check the parts for wear, and repair or replace the parts if necessary;

Replacement of engine oil

After the new engine has operated for the first 5 hours and for every 10 hours thereafter, change the oil in the crankcase to insure the proper lubrication of internal parts and to prevent costly repairs due to excessive wear.

Steps to replace oil :

- 1) Place the vehicle in a level position.
- 2) Remove the filler plug located on the rear side of engine;
- 3) Drain the oil into a suitable container.
- 4) Refill the crankcase with specified oil.

Use the same grade of oil as used originally.



Engine oil drain

Note : NEVER MIX VARIOUS GRADES OF OIL TOGETHER

Oil filter must be replaced whenever engine oil is replaced.

Check the oil level before drive, add oil up to the required level.

If the engine is run under the following tough conditions, the interval of recommended regular engine oil replacement period and oil filter replacement period shall be shorter.

1. Journey is mostly below 2000 km.
2. The engine is operated under cold weather when outside temperature falls below the freezing point, at this point of time, the journey is below 2000 km.
3. The engine is continually run at idle speed or low speed (For example, frequent on/off of engine).
4. The vehicle runs in dusty area.
5. The engine is always being turned On and Off

CAUTION:

The used engine oil is harmful to the human health and will pollute the environment, it needs to be disposed with care according to the environment protection regulation.

[D] COOLANT

The coolant container must be filled with coolant up to the level of upper marking . The coolant is prepared with fixed ratio of Glycol and water as follow :

The Thickness of Coolant		
	Glycol content	Water content
Above 0° C	50%	50%
Below 0° C	60%	40%

Upper marking

Lower marking



Glycol coolant should not be added too much, or diluted with too much water or replaced by methanol or ethanol or other liquid, otherwise its anti-freezing and anti-sepsis function will be affected. However, under extreme cold weather, less water will be used.

Replacement of coolant :

- 1) Open the container cap.
- 2) Take out the bottle. Pour away old coolant and add in new coolant to the level of upper marking.

NOTE :

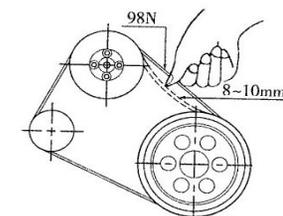
1. The boiling coolant and water will spill and hurt your hands and eyes, do not open the cap of coolant bottle if the engine and water tank is very hot.
2. External ---- Flush with water
3. Internal ---- Call physician immediately. Drink large quantity of water or milk.

[E] TRANSMISSION BELT

Proper adjustment of belt will ensure normal functioning of motor. Under normal circumstances, deviation of 10 mm up or down is allowed when the middle of belt is gently pressed with the thumb. If the belt is cracked or worn out, replacement must be made.

WARNING

Do not run the engine while checking the belt, otherwise it may cause extrusion, disconnection or entwining of transmission parts



皮带调整图



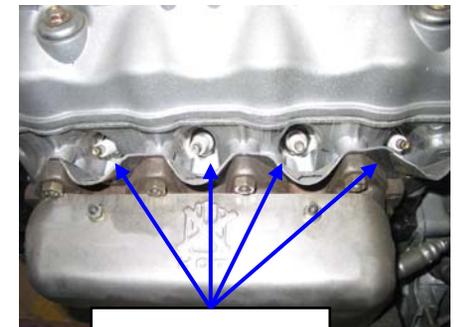
[F] SPARK PLUG

The spark plug should be checked periodically. The electrodes should be kept clean and free of carbon. The presence of carbon or excess oil will greatly reduce the proper engine performance.

Maintenance Period
Replacement by every 12 months or 10000 kilometer

Spark Plug cleaning /replacement

- 1) Clear the dust from the spark plug seat with a brush.
- 2) Disconnect the high voltage cable.
- 3) Remove the spark plug with a spark plug wrench.
- 4) Carbon can be cleared by using a small brush or rasp off by using a small file.
- 5) Check the spark plug gap (area between the electrodes) with a wire feeler gauge. This standard gap is 0.7- 0.9 mm.
- 6) If the spark plug is worn out, change a new one.



Resistance spark

- 7) Before installing the spark plug, clear the dust around the housing and coat the threads lightly with the graphite grease if possible, to ensure the easy removal next time when the spark plug needs inspection;
- 8) Place the spark plug back to its original position, use hand to screw the spark lug in clockwise direction. If it fails to screw in, take it out and try again. Make sure the screw thread of the spark plug matches the screw thread of cylinder head cover. Do not screw the spark plug too tight [Standard torque = 25 N.m] or use force, otherwise the screw thread will be damaged.
- 9) Put the high-voltage cable back to its original position.
- 10) Slowly turn the airscrew anticlockwise; observe the RPM of the engine, and stop the adjusting as the RPM reaches the top speed;
- 11) Adjust the screw, and adjust the idle speed to an ideal value;
- 12) Repeat the steps d and e until the rotate speed of the engine becomes stable.

Note :

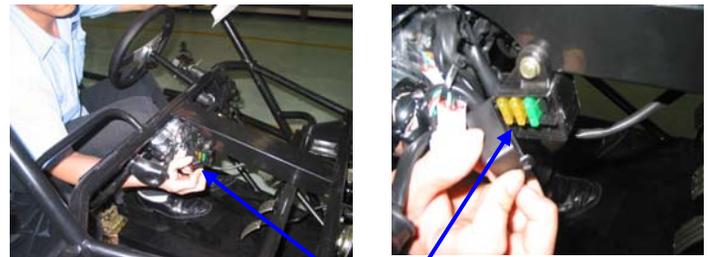
- a . It is advisable to replace the spark plug at least once a year to insure the easy starting and good engine performance.
- b. If the spark plug is not properly fastened, the engine performance will be affected and some components might be damaged.

- c . Inspect the spark plug each time you change the oil;
- d. While putting in or taking out the spark plug from the housing, make sure the facing of the tip of spark plug is in level with the faucet of the housing.
- e. Do not pull the high-voltage cable directly, you should pull it together with the sleeve.
- f. Do not use unknown brand spark plug.
- g. The spark plug or engine body could be hot, observe safety measure to avoid getting your hands burnt.

[G] FUSE

Fuse Box

There are two fuse boxes in each buggy.
One is located at the left bottom corner of the control panel, the other is in between the battery and engine.



Fuse

Replacement of fuse

- a. After removing the fuse box cover, take out the fuse and check its surface.
- b. Replace it if it is melted or broken.



NOTE :

- a. **Make sure the same specification standard of fuse is used. Otherwise, it will damage the entire electrical system, or cause fire.**
- b. **Do not replace fuse with other type of wire coil or material.**



[I] WHEELS**Tires inflation**

Maintaining the following specified tire pressure will be necessary to ensure driving comfort, safety and durability.

	Front tire		Rear Tire		Spare Tire
	On-road tires	Off-road tires	On-road tires	Off-road tires	
Tire size	25 x 8-12	25 x 8-12	25 x 10-12	25 x 10-12	
Full load	230 Kpa/23 psi	230 Kpa/23 psi	230 Kpa/23 psi	230 Kpa/23 psi	240 Kpa/24 psi

The above figures are measured under normal air temperature. If the tires are hot, the pressure reading will slightly go up, but it is within acceptable range and needs no adjustment to the tire pressure. If winter tire is used, each of the above pressure values should be increased by 20 Kpa or 2 psi.



Tire replacement

When replacement is necessary, observe following steps :

- 1) Park the vehicle on a flat ground. If replacement needs to be made on public road, park the vehicle on the road side and place a warning sign board 10 meters behind the vehicle, turn on the flickering lamp;
- 2) Turn off the engine and remove the key from the vehicle;
- 3) Shift the gear to 1st or reverse position.
- 4) Get all the passengers off the vehicle;
- 5) Slightly lift the wheel up by using a jack;
- 6) Remove the 4 lock bolts and lock nuts from the rim;
- 7) Remove the old wheel and replace with a new wheel;
- 8) Fasten the 4 lock bolts and lock nuts.
- 9) Check tire pressure with precise tire gauge under normal air temperature.
- 10) After examining tire pressure, tighten the bonnet.



Locking Bolts/nut Bonnet

Note :

- a) Low tire pressure will result in overheating and internal deterioration. Tubeless tire will easily blow up and cause air leak while running at high speed.
- b) Frequent travel on bad terrain will cause air leak or other latent problem.
- c) When traveling on rugged road, drive the vehicle slowly and in an appropriate angle.
- d) During parking, do not let tires rest on accidented road surface.
- e) Pressure check should be conducted bi-monthly or before every long distance trip.

BATTERY

Free-maintenance battery is installed at the rear of the vehicle. Read the instructions carefully on all the labels and follow accordingly.

Battery



 **WARNING**

- **The following procedure is very dangerous and should be performed with utmost care and attention. Wear protective eyewear, rubber gloves, and have water available should electrolyte come in contact with skin or eyes. KEEP ALL CHILDREN AWAY FROM THE AREA WHILE THIS PROCEDURE IS BEING PERFORMED.**
- **POISON – CAUSES SEVERE BURNS**
Contains sulfuric acid.
Avoid contact with skin, eyes, or clothing
TO prevent accidents, rinse empty container with water.
- **ANTIDOTE:**
External – flush with water;
Internal – call physician immediately. Drink large quantities of water or milk.
Follow with milk of magnesia, beaten eggs or vegetable.
Eyes – Flush with water for 15 minutes and get prompt medical attention.
- **KEEP OUT OF THE REACH OF CHILDREN**

Note: The red positive (+) cable has a larger diameter than the black negative (-) cable.

- 1) Charging rate: Charge battery @ 0.7 Amps for 5 ~ 10 hours;
- 2) After charging is complete, press down firmly with both hands to seat the caps, and the battery is now sealed;



WARNING

- **DO NOT open sealed caps to add water to battery.**
- **Always wear safety glasses and charge in a ventilated area.**
- **If battery gets hot to the touch, discontinue charging and allow battery to cool down.**
NEVER REMOVE THE STRIP OF CAPS NOR ADD ANY WATER OR ELECTROLYTE.
- **DO NOT smoke around batteries and keep away from open flame.**
- **Do not use fast charging unless it is an emergency.**
- **At the beginning or end of charging, turn off the charger first, in order to prevent electric spark**

[J] BATTERY MAINTENANCE**Initial charge**

Re-charging is necessary if the vehicle remains unused for six weeks or more. Although the battery is pre-charged before it leaves the factory, the shipment and inland delivery might take more than six weeks, thus the consumer is advised to charge the batter again before operating the vehicle.

Battery Replacement

Observe following steps if replacement is necessary :

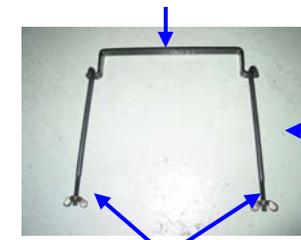
- 1) Remove the screws [left and right] from the ends of tie rod below the battery and then lift up the tie rod from the battery mount.



Battery assembly



Nappe nut to fix battery



Nappe nut to fix battery

Battery tie rod

- 2) Before removing the cables from the battery, remember which cable is connected to the positive terminal (+) and which cable is connected to the negative (-) terminal; Clean cable connectors with wire brush or sandpaper to remove oxidation;
- 3) Take out the old battery and replace it with new battery;
- 4) Put dielectric grease on the battery terminals to avoid corrosion;
- 5) Connect cables to the proper terminals: positive cable to positive terminal, and negative cable to negative terminal;



Position of battery pressure plate

Note : Positive (+) cable is red and larger in diameter; Negative y cable is black and smaller of the two in diameter.

CONNECT NEGATIVE CABLE LAST.

- 6) Torque terminal bolts to 40 in. / lbs;
- 7) Place rubber pad on battery tray; securely fasten battery to the vehicle by using tie rod.

CAUTION :

- a. **If the buggy will not be used for long time, disconnect the cable in order to save the electricity weeks**
- a. **Ensure the battery and all cables are securely fastened and clean at all times.**
- c. **Dispose the old battery to a safe area to protect the environment.**

 **WARNING**

- **To avoid possibility of explosion, always connect battery cable in the order specified: RED first; BLACK last. An exploding battery can cause serious injury or death.**
- **Batteries contain sulfuric acid.**
- **Always shield eyes with protective eyewear when working around battery acid.**
- **Battery acid is poisonous and can cause severe burns.**
- **DO NOT smoke around batteries and keep away from open flame.**

STORAGE INSTRUCTION

In the event your vehicle is not to be operated for periods in excess of 30 days or at the end of each driving season, prepare for the storage as follows:

- 1) Drain (or use a fuel stabilizer) all the fuel out of the fuel tank and carburetor;
- 2) Remove the spark plug; pour one ounce of clean cylinder lubricating oil through the spark plug hole into the cylinder, and crank the engine slowly to spread the oil so as to lubricate the cylinder better; replace the spark plug;
- 3) Don't save or store gasoline over winter, because the old gasoline has deteriorated in the winter storage, and will cause hard starting and affect the engine performance.

**NOTE :**

In very cold weather, engine oil runs in the wrong direction and stays on one side of engine, not on engine bottom; if you start the buggy immediately after taking it out, engine oil won't have enough time to flow back to the engine bottom, which may cause starting failure and improper engine lubrication.

PERIODICAL CHECK AND SERVICE

The maintenance intervals in the following table are based upon average riding conditions. Riding in unusually dusty areas requires more frequent services.

Interval Items	1st Service in 1st Week	Daily	Monthly	Quarterly	Yearly
Air cleaner	X	X	C	R	R
Spark plug	X		C, A	R	R
Carburetor	A		A	A	C
Gearbox oil	X		X	R	R
Engine oil	X	X	R	R	R
Tire pressure/wear	X	X	X	X	R
Brake pad	X	X	X	R	R
Drive chain	CAL	CAL	CAL	CAL	CAL
Brake cable	A		A	A	A
Chassis	X		X	X	X

Interval	1st Service in 1st Week	Daily	Monthly	Quarterly	Yearly
Items					
Fuel switch/fuel tank	X			X	X
Battery	X		X	X	R
Valve clearance of engine			A	A	A
Throttle cable	A		A	A	A
Absorber	X		X	X	R

Note: X: Inspect, clean or replace if necessary

A: Adjust;

C: Clean;

L: Lubricate;

R: Replace.

SPECIFICATIONS**DIMENSIONS****DOUBLE-SEAT**

Overall Length	2960mm
Overall Width	1690mm
Overall Height	1450mm
Wheelbase	2320mm
Ground Clearance	285mm
VIN	Start with L4V
Statutory Plate & Safety Labels	According to standard

ENGINE

Model	DZ465MYG
Type	Water-cooled, 4-cylinder, 4-stroke
Displacement	988CC
Bore×Stroke	65.5mm×78mm
Max. Power	38.5kw/5200rpm
Max. Torque	83N·m/3000rpm

Idle Speed	900±50rpm
Fuel Type	SAE 93# or above (unleaded)
Lubricate Oil Type	SAE 10W / 40SF (winter) SAE 15 W / 40SF (summer)
Lubrication	Pressure & splash
Cooling	Water-cooled
Ignition	Spark Ignition(ECM Control)
Starting	starting motor
Spark Plug	D7
1 st Forward Gear Transmission Ratio	3.818
2 nd Forward Gear Transmission Ratio	2.210
3 rd Forward Gear Transmission Ratio	1.423
4 th Forward Gear Transmission Ratio	1.033
5 th Forward Gear Transmission Ratio	0.844
Backward Gear Transmission Ratio	3.583
Compression Ratio	9: 1
Clutch	Dry, multi-plate, friction [Non-automatic]
Air Cleaner	Filter sponge element

Gear-Shifting	Five gears, hand control
Valve Gap	0.05 ± 0.02mm

CAPACITIES

Fuel Tank	30 L
Engine Oil	3L
Acceleration	≤15s
Climbing	≤20°
Top Speed	120 km/h
Turning Radius	9.8m
Noise Level	≤80dB(A)
Battery	12V 36Ah
Fuse	15 A/10A/10A

CHASSIS

Brake System	Front and Rear disk, foot control
Front Suspension	Independent Dual A-arm
Rear Suspension	Independent Dual A-arm

Front Tire	25 × 8-12
Rear Tire	25 × 10-12

TIRE PRESSURE

Front	230kpa
	230kpa
Rear	230kpa
	230kpa

WEIGHT

Net Weight	500kg
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*** THE SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

BUGGY IDENTIFICATION

1. You may identify your buggy by the Vehicle Identification Number [VIN] which is embossed on the frame behind the passenger seat. This VIN number will be used in the communication with the dealer or manufacturer.



VIN

2. The engine number is embossed under the vice-driver seat.



BUGGY WIRING DIAGRAM

