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# Owner's Manual

# Repair Manual

READ THIS MANUAL CAREFULLY.  
IT CONTAINS IMPORTANT SAFETY INFORMATION.

**800CC**

MINIMUM  
RECOMMENDED  
OPERATOR AGE:

**16**

**1100CC**

**(4×4) / (4×2)**



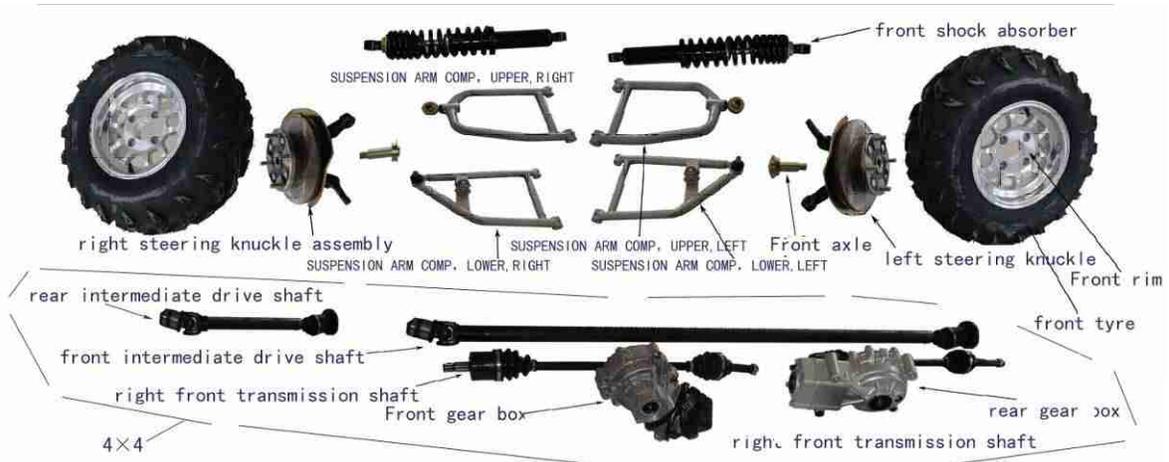
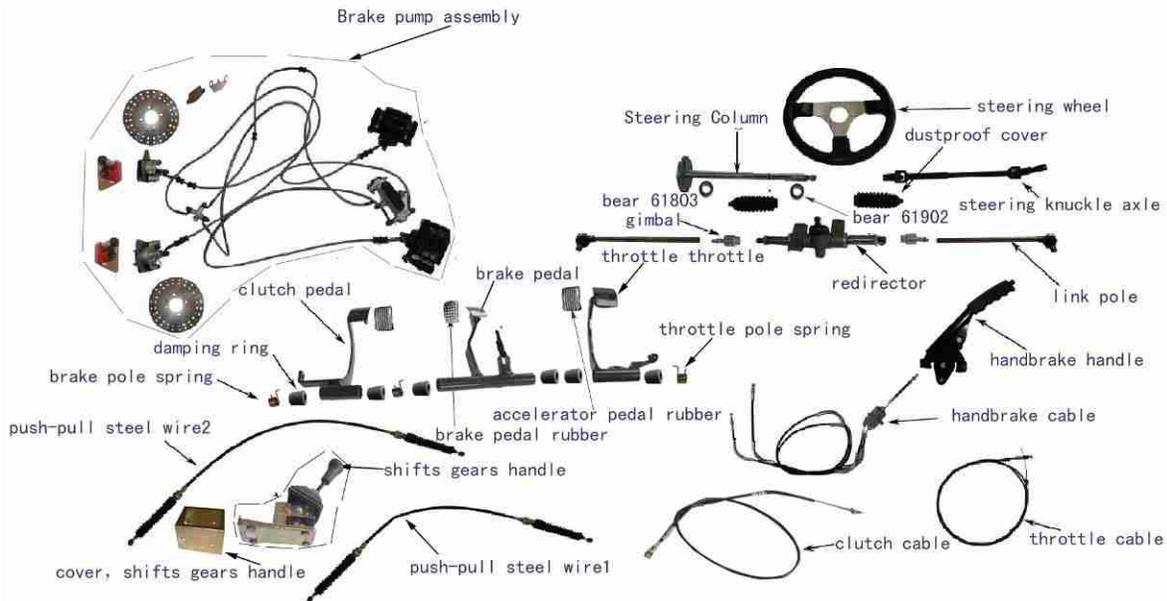
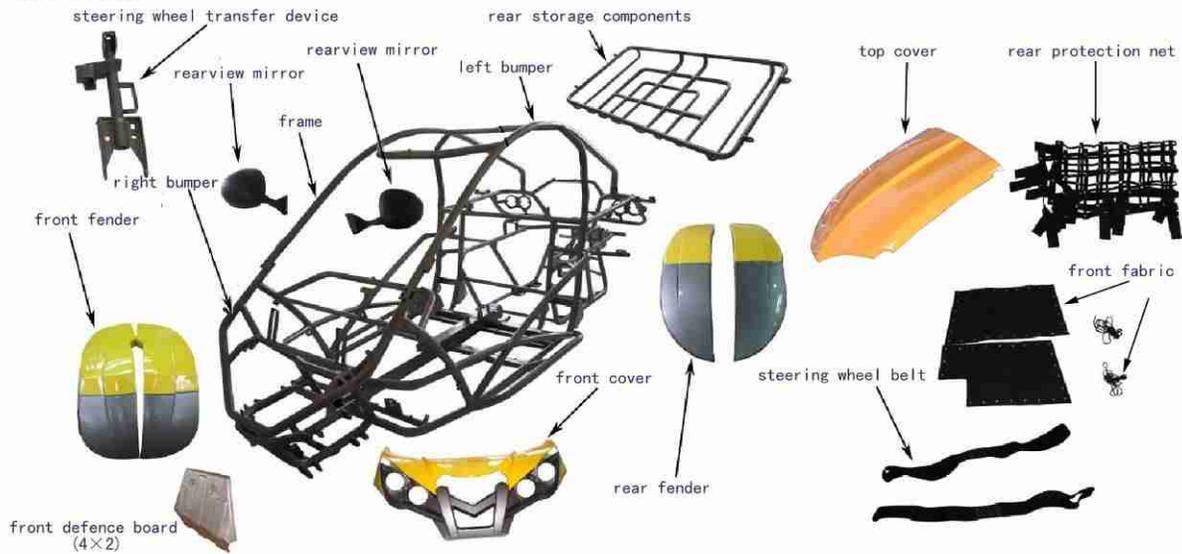
## FOR OFF-ROAD USE ONLY

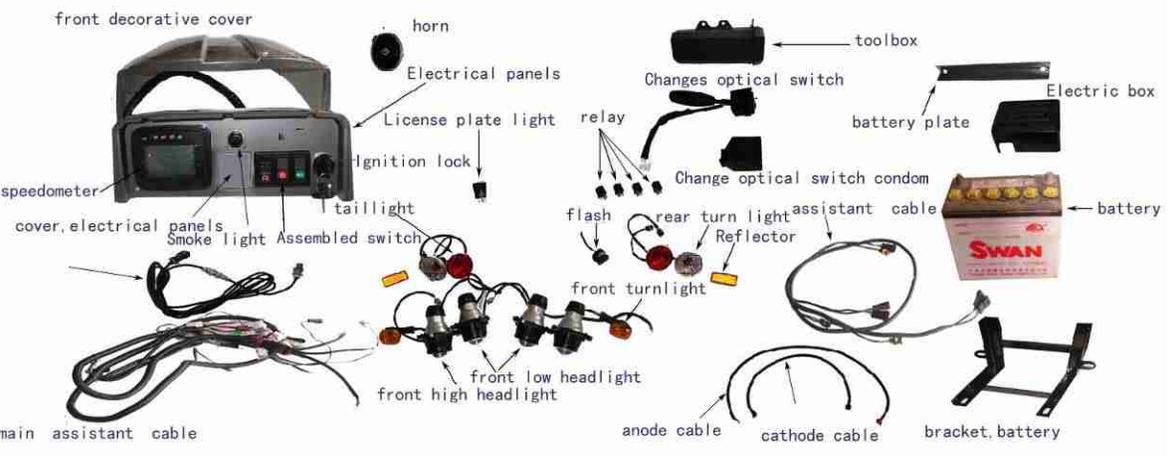
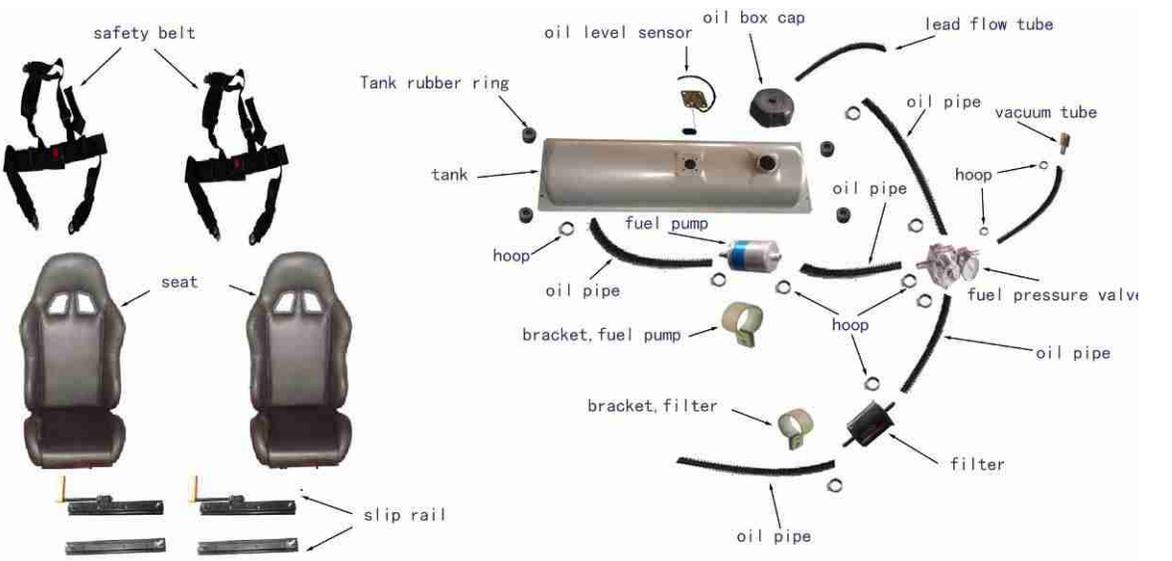
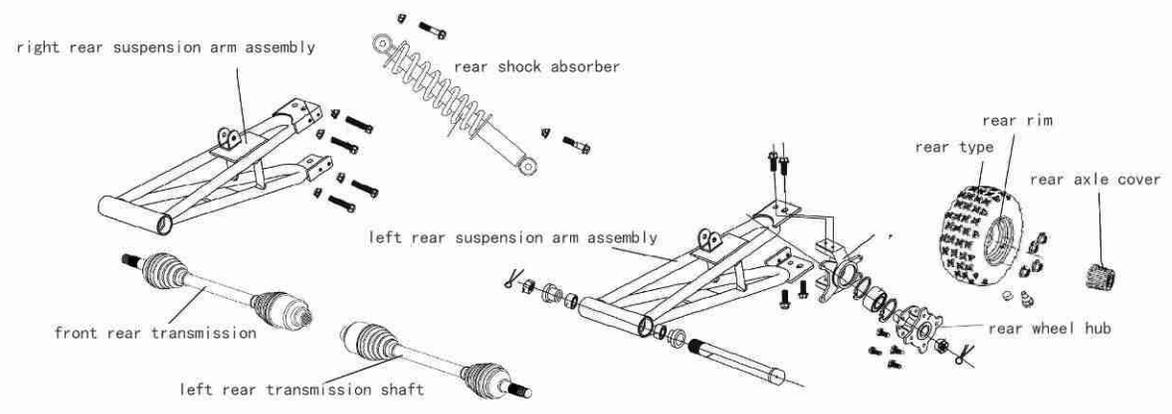
This vehicle is designed and manufactured for off-road use only.  
It does not conform to federal motor vehicle safety standards, and operation on public streets, roads, or highways is illegal.

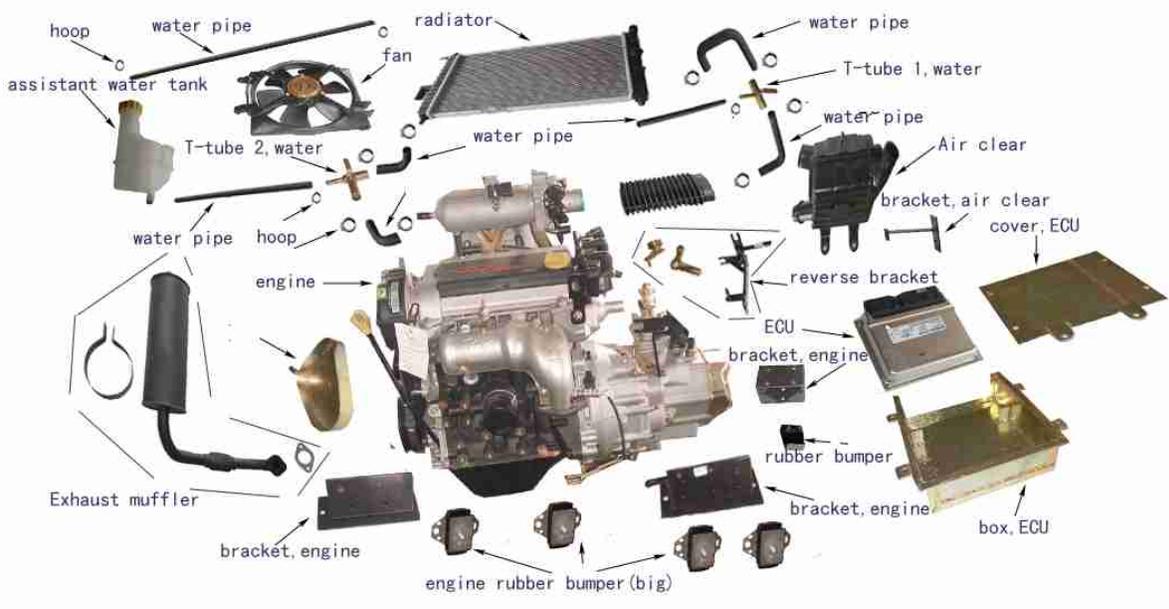
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# Explosion







## FOREWORD

Thank you for choosing our double seat BUGGY. We hope you will have fun with it. Before you start operate on 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 handle of this BUGGY. Protective gears should be worn at all time when driving or riding this BUGGY.

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

## 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 and in this manual. This information alerts you to potential hazards that could hurt you or others.

It is not practical or possible to warn you about all hazards associated with operating or maintaining a BUGGY; you must use your own good judgment.

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 two signal words: WARNING, or CAUTION.

These signal words mean:



Physical harm may result from failure to adhere to the instructions that are described within the WARNING labels.

Safety Headings: such as Important Safety Reminders or Important Safety Precautions,

Safety Section: such as Buggy Safety.

Instruction: how to use this BUGGY correctly and safety.

This entire manual is filled with important safety information—please read it carefully.

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

### Follow the Age Recommendation

It is strongly recommended that no one under the age of 16 be permitted to drive this BUGGY.

### Always Wear a Helmet

It's a proven fact: helmets significantly reduce the number and severity of head injuries. Always wear an approved motorcycle helmet. We also recommend that you wear eye protection, sturdy boots, gloves, and other protective gear.

### Drive Off-Road Only

Your Off highway recreational vehicle is designed and manufactured for off-road use only. The tires

are not made for pavement, and the Off highway recreational vehicle does not have some features required for use on public roads.

### **Take Time to Learn & Practice**

Even if you have driven other BUGGY, take time to become familiar with how this BUGGY works and handles. Practice in a safe area until you build your skills and get accustomed to this Buggy's size and weight. Because many accidents involve inexperienced or untrained drivers, we urge all drivers to take a training course approved by the BUGGY Safety Institute. Check with your dealer for more information on training courses.

### **Be Alert for Off-Road Hazards**

The terrain can present a variety of challenges when you drive 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.

### **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 drive safely.

### **Don't Drink and Drive**

Alcohol and driving 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 drive, and don't let your friends drink and drive either.

### **Do not operate this BUGGY at night.**

Dark vision can greatly reduce a driver's visibility and judgment. So driving at night is dangerous and can increase possibility for accident.

### **Never run your BUGGY indoors.**

The exhaust from the engine contains a tasteless, odorless and poisonous gas called carbon monoxide.

### **Keep away from moving parts of the BUGGY**

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

### **Skidding or Sliding**

The terrain surface can be a major factor affecting turns. Skidding a turn is more likely to occur on slippery surfaces such as snow, ice, mud and loose gravel. If you skid on ice, you may lose all directional control. To avoid skidding on slippery terrain, keep your speed low and drive carefully.

## SAFETY LABELS

This section presents some of the most important information and recommendations to help you drive your BUGGY safely. Please take a few moments to read these pages.

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



## ARE YOU READY TO DRIVE?

Before each drive you need to make sure you and your BUGGY 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 BUGGY, and adjustments to make for your comfort, convenience, or safety. Before you drive your BUGGY for the first time, we urge you to:

- Read this owner's manual and the labels on your BUGGY carefully
- Make sure you understand all the safety messages.
- Know how to operate all the controls.

Before each drive, be sure:

- You feel well and are in good physical and mental condition.
- You are wearing an approved motorcycle helmet (with chin strap tightened securely), eye protection, and other protective clothing.
- You don't have any alcohol or drugs in your body system.

### 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 gears can reduce the chance of injury when you drive.

The following suggestions will help you choose the proper driving gears.

#### 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 BUGGY without wearing an approved motorcycle helmet, eye protection, and protective clothing could increase your chances of head and/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 Wears

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, and a chest and shoulder protector.

### Driver Training

Developing your driving skills is an on-going process. Even if you have driven other Buggies, take time to become familiar with how this BUGGY works and handles. Practice driving the BUGGY in a safe area to build your skills. Do not drive in rough terrain until you get accustomed to the BUGGY's controls, and feel comfortable with its size and weight.

**WARNING**

Operating this BUGGY without proper instruction could increase your risk of an accident that could lead to serious injury or death.

### Age Recommendation

It is strongly recommended that no one under the age of 16 be permitted to operate this BUGGY.

**WARNING**

A child driving a BUGGY that is not recommended for his/her age could lose BUGGY control and result in severe injury or death.

A child under 16 should have adult supervision when operate on the BUGGY.

### No Alcohol or Drugs

Alcohol, drugs and Buggies don't mix. Even a small amount of alcohol can impair your ability to operate a BUGGY safely. Likewise, drugs---even if prescribed by a physician---can be dangerous while operating a BUGGY. Consult your doctor to be sure it is safe to operate a vehicle after taking medication.

**⚠ WARNING**

**Operating this BUGGY 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 BUGGY.**

**IS YOUR VEHICLE READY TO DRIVE?**

Before each drive, it is important to inspect your BUGGY and make sure any problems you find are corrected. A pre-drive 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 BUGGY has overturned or has been involved in a collision, do not drive it until your BUGGY has been inspected by your dealer. There may be damages or other problems you cannot see.

**⚠ WARNING**

**Improperly maintaining this BUGGY or failing to correct a problem before driving can cause a crash in which you can be seriously hurt or killed.**

**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 BUGGY:

- Engine Oil: Check the level and add oil if needed. Check for leaks.
- Fuel: Check the level and add fuel if needed. Also make sure the fuel filling 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.
- Nuts & 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 BUGGY.
- 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 a leak or loose cable.
- Lights: Make sure the headlight, brake light and taillight are working properly.
- Throttle: Check the free play and adjust if needed. Press the throttle to make sure it moves smoothly without sticking, and snaps back automatically when it is released.
- Brakes: Press the rear brake pedal several times, check for proper brake pedal free play. Make sure there is no brake fluid leakage.
- Engine Stop Button: When engine is running, press and hold the Engine Stop Button for two seconds. make sure the 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 for looseness. Replace or tighten as needed.
- Tie rod: Check the tie rod housing for wear. Check the fittings for looseness. Replace or tighten as needed.

## **SAFE DRIVING PRECAUTIONS**

### **Keep Hands and Feet on Controls**

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

#### **WARNING**

**Removing hand from Steering wheel or feet from foot controls during operation can reduce your ability to control the BUGGY or could cause you to lose your balance and fall off the BUGGY. Always keep both hand on the steering wheel and both feet on the foot controls of your BUGGY during operation.**

### **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 BUGGY, the terrain, visibility and other operating conditions, plus your own skills and experience.

#### **WARNING**

**Operating this BUGGY at excessive speed increases your chances of losing control of the BUGGY, which can result in an accident. Always drive at a speed that is proper for your BUGGY, the terrain, visibility and other operating conditions, and your experience.**

### **Use 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 obstructions like hidden rocks, bumps, or holes in time to react.)

#### **WARNING**

**Failure to use extra care when operating this BUGGY on unfamiliar terrain could result in the BUGGY 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 BUGGY.**

Never drive past the limit of visibility. Maintain a safe distance between your BUGGY and other off-road vehicles.

Always exercise caution and use extra care on rough, slippery and loose terrain.

 **WARNING**

**Failure to use 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 BUGGY on such terrain. Always be especially cautious on these kinds of terrain.**

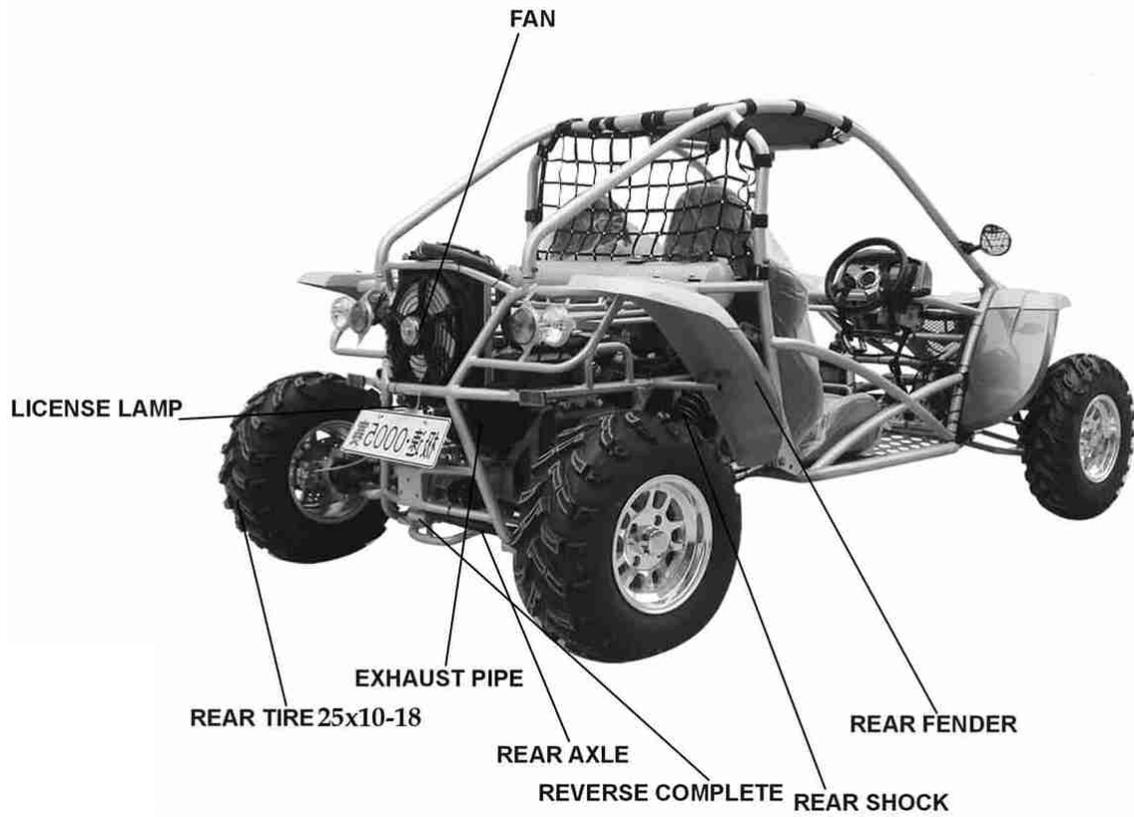
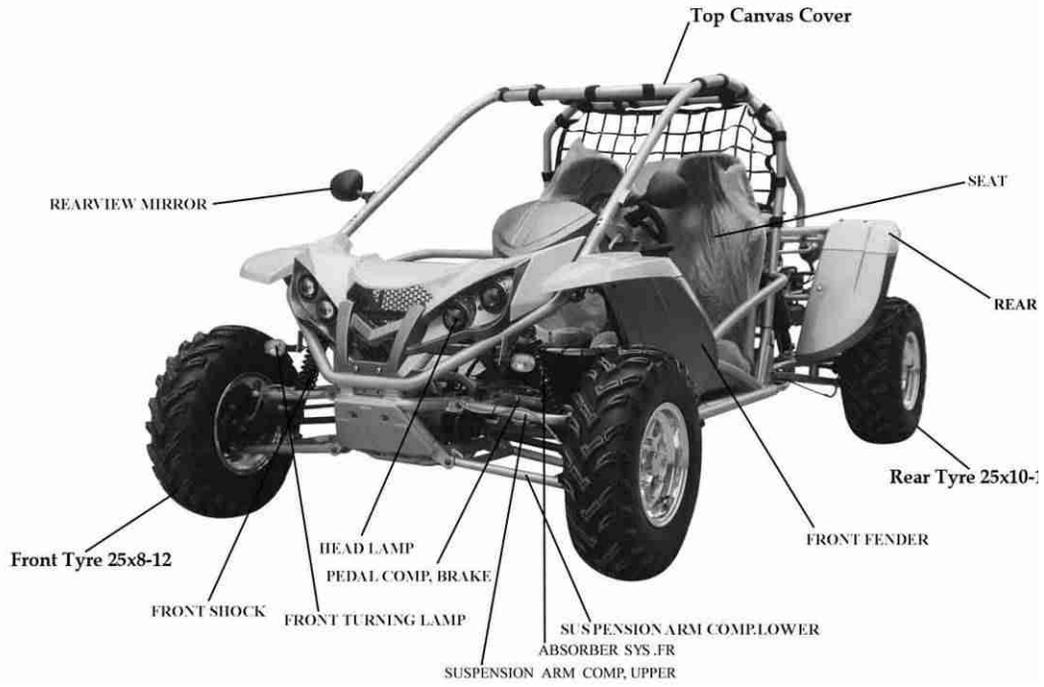
### **Do Not Perform Stunts**

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

 **WARNING**

**Attempting wheelies, jumps, 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.**

**Locations of Parts:**



## SPECIFICATIONS

### 800CC 4×2

#### DIMENSIONS

Overall Length	3035mm
Overall Width	1685mm
Overall Height	1490mm
Wheelbase	2180mm
Front Track	1430mm
Rear Track	1430mm
Ground Clearance	270mm

#### ENGINE

Type	3 Cylinder,4-Stroke,water cooled
Bore x Stroke	72×66.5mm
Displacement	812mL
Compression ratio	9.5: 1
Carburetor	Electric Fuel Injection
Max Power	37KW/6000rpm
Maximum Torque	70/3500-4000Nm/r/min
Fule consumption	5.5L/100km
Starting	Electric
Ignition	Electric Fuel Injection
Lubrication	Force & Splash
Transmission	Manual clutch, 4 shift/Reverse
Fuel type	RQ93 (unleaded)
Engine oil	SAE-10W/30
Gear oil	GL-4 75W/90

#### CAPACITIES

Maximum load	250kg
Fuel tank	30L
Engine oil	2.9L
Gear oil	2.0L
Starting	≤15s
Climbing	≥25°
Battery	12V36Ah
Head Light	12V 55W/ 5W
Redirector Light	12V 5W
Tail Light	12V 21W/ 5W
Horn	12V3A
Fuse	30A
Brake Track	< 7m @40 km/h
Top speed	100km/h (or limited as customers require)

#### CHASSIS

Front, Rear brake	Hydraulic disc, right foot control
Front tire	25×8-12
Rear tire	25×10-12
Front Suspension	Independent Dual A-Arm
Rear Suspension	Independent Suspension
Final Drive	shaft driven

#### TIRE PRESSURE

Front	250kpa2.5kg/c m <sup>2</sup> 36psi
Rear	250kpa2.5kg/c m <sup>2</sup> 36psi

#### WEIGHT

Net Weight	472kg
G.W	560kg

#### CONVEYANCE

Container quantity	20GP:4Units. 40HQ:12Units
Carton dimiensions	2870 mm×1660mm×850mm

# 1100CC 4×2

## DIMENSIONS

Overall Length	3035mm
Overall Width	1685mm
Overall Height	1490mm
Wheelbase	2180mm
Front Track	1430mm
Rear Track	1430mm
Ground Clearance	270mm

## ENGINE

Type	4 Cylinder,4-Stroke,water cooled
Bore x Stroke	72×66.5mm
Displacement	1083mL
Compression ratio	9.5: 1
Carburetor	Electric Fuel Injection
Max Power	50KW/6000rpm
Maximum Torque	90/3500-4000Nm/r/min
Fule consumption	6L/100km
Starting	Electric
Ignition	Electric Fuel Injection
Lubrication	Force & Splash
Transmission	Manual clutch, 4 shift/Reverse
Fuel type	RQ93 (unleaded)
Engine oil	SAE-10W/30
Gear oil	GL-4 75W/90

## CAPACITIES

Maximum load	250kg
Fuel tank	30L
Engine oil	3.5L
Gear oil	2.0L
Starting	≤15s
Climbing	≥25°
Battery	12V36Ah
Head Light	12V 55W/ 5W
Redirector Light	12V 5W
Tail Light	12V 21W/ 5W
Horn	12V3A
Fuse	30A
Brake Track	< 7m @40 km/h
Top speed	100km/h (or limited as customers require)

## CHASSIS

Front, Rear brake	Hydraulic disc, right foot control
Front tire	25×8-12
Rear tire	25×10-12
Front Suspension	Independent Dual A-Arm
Rear Suspension	Independent Suspension
Final Drive	shaft driven

## TIRE PRESSURE

Front	250kpa2.5kg/c m <sup>2</sup> 36psi
Rear	250kpa2.5kg/c m <sup>2</sup> 36psi

## WEIGHT

Net Weight	484kg
G.W	572kg

## CONVEYANCE

Container quantity	20GP:4Units. 40HQ:12Units
Carton dimiensions	2870 mm×1660mm×850mm

# 800CC 4×4

## DIMENSIONS

Overall Length	3140mm
Overall Width	1850mm
Overall Height	1580mm
Wheelbase	2450mm
Front Track	1395mm
Rear Track	1570mm
Ground Clearance	310mm

## ENGINE

Type	3 Cylinder,4-Stroke,water cooled
Bore x Stroke	72×66.5mm
Displacement	812mL
Compression ratio	9.5: 1
Carburetor	Electric Fuel Injection
Max Power	37KW/6000rpm
Maximum Torque	70/3500-4000Nm/r/min
Fule consumption	5.5L/100km
Starting	Electric
Ignition	Electric Fuel Injection
Lubrication	Force & Splash
Transmission	Manual clutch, 5 shift/Reverse
Fuel type	RQ93 (unleaded)
Engine oil	SAE-10W/30
Gear oil	GL-4 75W/90

## CAPACITIES

Maximum load	250kg
Fuel tank	30L
Engine oil	2.9L
Gear oil	2.0L
Starting	≤15s
Climbing	≥25°
Battery	12V36Ah
Head Light	12V 55W/ 5W
Redirector Light	12V 5W
Tail Light	12V 21W/ 5W
Horn	12V3A
Fuse	30A
Brake Track	< 7m @40 km/h
Top speed	100km/h (or limited as customers require)

## CHASSIS

Front, Rear brake	Hydraulic disc, right foot control
Front tire	27×8-14
Rear tire	27×11-14
Front Suspension	Independent Dual A-Arm
Rear Suspension	Independent Suspension
Final Drive	shaft driven

## TIRE PRESSURE

Front	250kpa2.5kg/c m <sup>2</sup> 36psi
Rear	250kpa2.5kg/c m <sup>2</sup> 36psi

## WEIGHT

Net Weight	598kg
G.W	680kg

## CONVEYANCE

Container quantity	20GP:4Units. 40HQ:12Units
Carton dimiensions	2870 mm×1660mm×850mm

# 1100CC 4×4

## DIMENSIONS

Overall Length	3140mm
Overall Width	1850mm
Overall Height	1580mm
Wheelbase	2450mm
Front Track	1395mm
Rear Track	1570mm
Ground Clearance	310mm

## ENGINE

Type	4 Cylinder,4-Stroke,water cooled
Bore x Stroke	72×66.5mm
Displacement	1083mL
Compression ratio	9.5: 1
Carburetor	Electric Fuel Injection
Max Power	50KW/6000rpm
Maximum Torque	90/3500-4000Nm/r/min
Fule consumption	6L/100km
Starting	Electric
Ignition	Electric Fuel Injection
Lubrication	Force & Splash
Transmission	Manual clutch, 5 shift/Reverse
Fuel type	RQ93 (unleaded)
Engine oil	SAE-10W/30
Gear oil	GL-4 75W/90

## CAPACITIES

Maximum load	250kg
Fuel tank	30L
Engine oil	3.5L
Gear oil	2.0L
Starting	≤15s
Climbing	≥25°
Battery	12V36Ah
Head Light	12V 55W/ 5W
Redirector Light	12V 5W
Tail Light	12V 21W/ 5W
Horn	12V3A
Fuse	30A
Brake Track	< 7m @40 km/h
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## CHASSIS

Front, Rear brake	Hydraulic disc, right foot control
Front tire	27×8-14
Rear tire	27×11-14
Front Suspension	Independent Dual A-Arm
Rear Suspension	Independent Suspension
Final Drive	shaft driven

## TIRE PRESSURE

Front	250kpa2.5kg/c m <sup>2</sup> 36psi
Rear	250kpa2.5kg/c m <sup>2</sup> 36psi

## WEIGHT

Net Weight	610kg
G.W	700kg

## CONVEYANCE

Container quantity	20GP:4Units. 40HQ:12Units
Carton dimiensions	2870 mm×1660mm×850mm

## **OPERATION**

### **A. Operation controls**

WARNING - Do not attempt to start or operate the engine until completely familiar with the location and use of each control necessary to operate this vehicle. The operator must know how to stop this machine before starting and driving it.

#### **WARNING**

Each time prior to starting the engine, check the throttle assembly to ensure that when pedal is pushed all the way forward the assembly is working smoothly and returns to idle when released. Do not operate if pedal or engine throttle linkage fail to return to idle. If unable to correct the problem through lubrication, adjustment or replacement of worn parts, contact your dealer for assistance.

#### **a. Throttle Pedal**

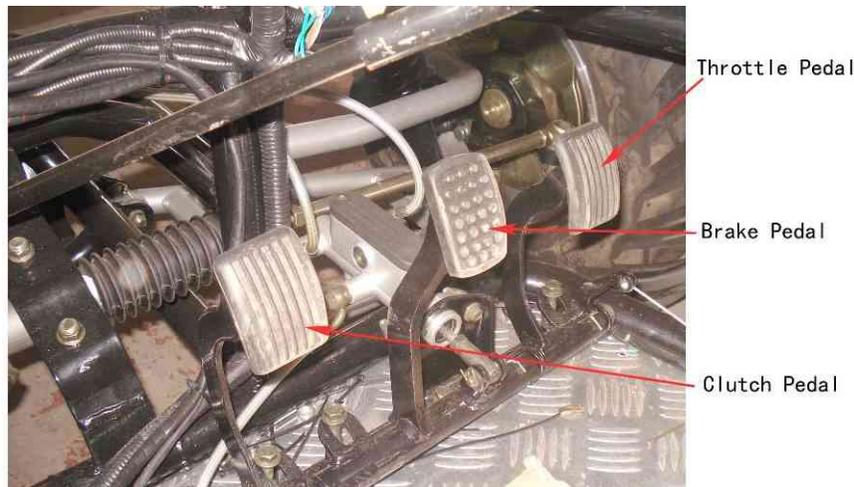
Changes engine rpm and vehicle ground speed. Press down on the accelerator pedal with your foot to increase speed and let up on the pedal to decrease speed.

#### **b. Brake Pedal**

Applying pressure to the brake pedal instead of the accelerator pedal with your foot will slow down and/or stop the vehicle. Riding or resting your foot on the pedal unnecessary will wear the brakes out prematurely.

#### **c. Clutch Pedal**

Applying pressure to the clutch pedal with your left foot will make gearbox to declutch and let up the pedal to clutch.



#### **d. Park Brake Lever**

Sets and releases the park brakes. Do not drive vehicle with park brake lever set.

- Set park brakes: pull-up on the park brake lever until the lever is tight.
- Release park brakes: Pull-up on the park brake lever, depress the release button and push the lever

#### **e. Shift Selector**

Changes trans-axle gears from neutral to forward or reverse. Always start engine in neutral.

- Pull up on shift selector collar and move lever to position “1” “2” “3” “4”, the vehicle will move forwards at different speed.
- Pull up on shift selector collar and move lever to center position to place trans-axle in neutral.
- Pull up on shift selector collar and move lever to position “R”, the vehicle will move backwards.



#### **f. Ignition Switch**

Pull firmly up on the park brake lever with your hand until the lever is tight. Set shift selector in neutral. Insert the key into key-switch, turn the key clockwise, and release the key when the engine starts. (Warning: Don't crank starter more than 5 seconds at one time).

#### **g. Turning-light switch**

Control the turning- light. Press the top of button down and the right turning light work; Press the bottom of button down and the left turning light work; Set the button in neutral while moving in line.

#### **h. Head light**

Switch: control the headlight far beam or lower beam. Press the lower-beam button down and the head light work as lower beam, the far-beam button and work as far beam.

#### **i. Park Brake Light switch**

Control the 4 turning lights on or off. Pull the park-brake-light switch out and the 4 turning lights illuminate together.

#### **h. Horn Switch**

Control the horn. Press the horn button down and hold, the horn buzz..

#### **j. Spot light switch**

Control the 4 spot- lights on or off.

#### **k. Engine Stop Button**

Important----stop button test. Before driving this vehicle, test the Engine Stop Button to assure that it is operating properly. With the engine running, move the Stop Button to the “OFF” position.

### **B. Indicating and gauges**

#### **a. Speedometer**

Indicates the speed vehicle is moving at. It warns you to drive at proper speed.

**b. Tachometer**

Indicates the RPM of engine.

**c. Coolant temperature indicator**

Indicate the temperature of coolant, if the temperature is above 1200C/2480 F. 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.

**d. Fuel level gauge**

The fuel gauge displays approximately how much fuel you have in the fuel tank. Always park the vehicle on level ground to get an accurate reading. The fuel tank is empty when the fuel gauge-needle points to 0 and full when the needle points to 1.

**e. Reverse gear light**

Indicate reverse gear engaged if illuminated.



**C. Passengers**

The vehicle allows for two riders only. Make sure you brief your passenger on proper safety procedures like keeping hands, arms, feet and other bodily appendages inside the vehicle. Passengers should only be transported in factory-supplied seating.

Operator and passenger are responsible for deciding if their situation warrants using Seat Belts.

**D. Seat**

The seats must always be securely fastened in the position which best affords the operator control of the foot pedals, steering wheel, and the remote stop button.

Pull seat adjustment handle upward to disengage seat slide.

Move seat to desired position.

Be sure seat adjustment handle snaps back into place and that seat is locked into position.



Seat adjustment handle

**⚠ WARNING**

Before attempting to adjust the seat ensure that engine of BUGGY is stopped.

**⚠ WARNING**

Never operate this BUGGY when the provided seat is not securely fastened. To do so could result in a strong possibility of severe personal injury or loss of life. Before attempting to adjust the seat ensure that engine of BUGGY is stopped.

### E. Pro-Drive Inspection

**⚠ WARNING**

**Perform this pre-drive inspection everyday before driving vehicle. If not performed, serious damage to the vehicle or personal injury may result.**

- a. Check for Engine Oil Level. Check for leaks, add oil if required.
- b. Check for Fuel Level. Add fuel if necessary and do not overfill. Check for leaks.
- c. Check for Brakes. Depress the rear brake pedal several times, and then check for proper brake pedal free play. Make sure there is no brake fluid leakage. Adjust if necessary.
- d. Check Tires. Check tires condition and pressure. The pressure on both Front and Rear tire is 225kPa.
- e. Check Throttle. Check for smooth operation. Assure throttle "snaps" back to idle.
- f. Check Engine Stop Button. Perform engine stop button test. Repair if necessary.
- g. Check all Nuts, Bolts, and fasteners. Check wheels to see that all axle nuts are tightened properly. Check and tighten if necessary all other fasteners to specified condition.
- h. Check Roll Cage Bar. Ensure all protective roll cage bar are in place before operating the BUGGY.
- i. Check Brake Light. Check for proper operation.
- j. Check Wheels. Check for tightness of wheel nuts and axle nuts; check that axle nuts are secured by cotter pins.
- k. Check Steering. Check for free operation for any unusual looseness in any area.

**⚠ WARNING**

**Always follow rules for safe operation and wear a helmet.**

### F. Preparation Before Starting The Engine

- (1) Check the engine fasteners before starting.
- (2) Fill in fuel, lubrication oil and anticorrosive antifreeze as specified.

Oil Capacity: Crankcase: (800cc: 2.9 L, 1100cc: 3.5L); Transmission box: 2L; Front gear box: 0.3L; Rear gear box: 0.3L.

Coolant Capacity:4500cc.

- (3) Method for filling coolant:
  - a) Remove thr radiator cap;
  - b) Squeeze the rubber pipes to expel the air,at the same time fill with coolant to the top of the rubber pipe.
  - c) Re-fit thr radiator cap.

 **WARNING**

**Don't open the water tank cap when the engine temperature is high. Otherwise, the jetting of the hot water may cause injuries**

### **G. Starting and Operating Instructions**

- a. Before starting the engine, be sure that the driver is seated properly in the BUGGY and tighten the seat belt.
- b. Test the BUGGY in the beginning to learn how to start, turn and stop.
- c. Operate the BUGGY slowly until you are familiar with it.
- d. The turning radius of this BUGGY 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 BUGGY from rolling over.
- e. To prevent vehicle from rolling over, be sure to only turn the vehicle at a slow more controllable speed, heel on the ramp of the main board when turning. If you keep your leg on the foot pedal, you can feel the vehicle is stable because of the gravity is adjusted and it won't roll over.

### **H. Starting the Engine**

- (1) Check if the fuel line is smooth.
- (2) Check if the ignition system is working.
- (3) Press the starting button when the throttle is closed.
- (4) Warm up the engine for 2-3 min after starting the cold engine.

Note:

- (1) Release the button and cut the power of the starting motor immediately after starting the engine.
- (2) Don't press the starting button after starting the engine. Otherwise it may cause damages to the engine.
- (3) Don't press the button for more than 3-4 seconds one time. Wait for about 10 seconds to repress. Press the button with the throttle slightly opened.
- (4) In cold weather, warm up the engine for several minutes at the idle speed. Then speed up after the operation temperature is reached.
- (5) In hot weather, avoid running the engine at the idle speed for a long time. It may overheat the engine.

### **I. Stopping the Engine**

- (1) Run the engine for about 3-5 min at the idle speed to cool down.
- (2) Turn off the throttle.

(3) Turn off the ignition switch.

### J. Running-in of the New Engine

The running-in distance is 1000km. During this period, please follow the following instructions.

- (1) Run the engine according to the requirements for the running-in engine.
- (2) Rotate the throttle slowly after starting the engine. Don't speed up or speed down suddenly.
- (3) Drive on the smooth roads. Don't drive uphill or on rough roads for a long time.
- (4) Keep the oil lines smooth.
- (5) Avoid speeding up suddenly or running the engine at a high speed without loading.
- (6) Maintain the vehicle according to service intervals. Repair as soon as possible if necessary.
- (7) After the running-in period, clean the crankcase and replace oil; remove the carbon on the top of the piston and in the combustion chamber; adjust the spark plug electrode gap and valve clearance; check if the oil lines are smooth; Maintain the whole vehicle according to the requirements specified in the Owner's Manual.

## MAINTENANCE

### A. Chassis Maintenance

#### a. Tire Maintenance

Use only tires recommended by Joyner. It is important for your safety and the safety of others that the tires have correct air pressure. Check air pressure in four tires before each use. Visually inspect tires for loss of air throughout each day of operation. See Tire Inflation Chart below for correct tire pressure:.

Tire Inflation Chart	
Tire	Inflation PSI
Front Tires	15
Rear Tires	15

#### b. Shift Adjustment

After a long time of use, it is necessary to adjust the shift cable to make shift clear, screw the thin nut show in the following figure clockwise or counter clockwise to move the shift cable at a proper position where you can shift clearly and smoothly, and then tight

Back ↔ Forth

Back ↔ Forth

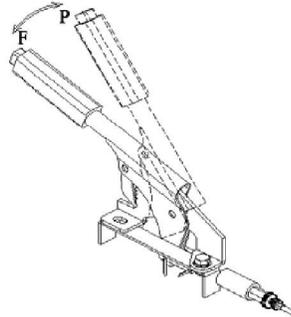


Adjustment nut

Adjustment nut

### c. Parking Adjustment

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



### d. 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.

After the engine starts, the engine is not allowed in high speed in the neutral gearshift.

Drive vehicle from stop to low speed slowly.

Avoid braking strongly.

Do not exceed the vehicle speed on the below schedule.

#### 800/1100 4×2

The speed of vehicle	The first 1000 km		
Max speed in each gear	1st	Gear	25km/h
	2nd	Gear	45km/h
	3rd	Gear	70km/h
	4th	Gear	90km/h

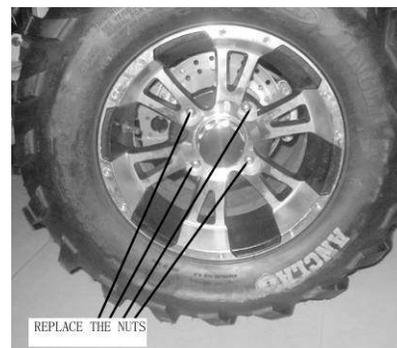
#### 800/1100 4×4

The speed of vehicle	The first 1000 km		
Max speed in each gear	1st	Gear	25km/h
	2nd	Gear	40km/h
	3rd	Gear	55km/h
	4th	Gear	70km/h
	5th	Gear	80km/h

### e. Wheel Replacement

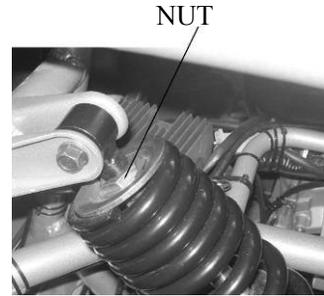
**Do not disassemble the castle nuts when you replace the wheels.**

It is only necessary to tighten the nuts so that the wheel turns freely on the axle with minimum endplay. Tighten the nuts after replacing the wheels.



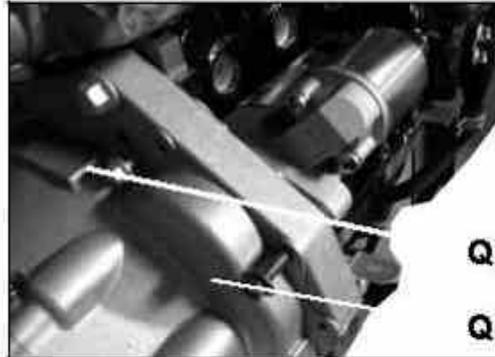
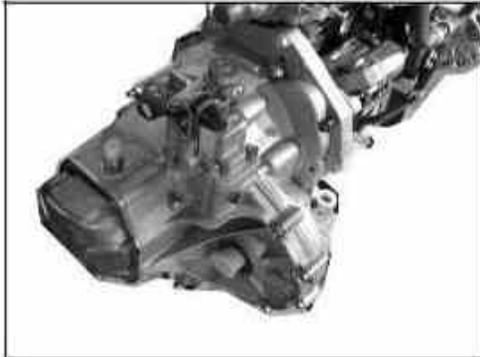
**f. Adjustment of Front/Rear Shock**

Use a wrench as you adjust the shock. The tension of shock spring will increase as you screw the nut deasil.

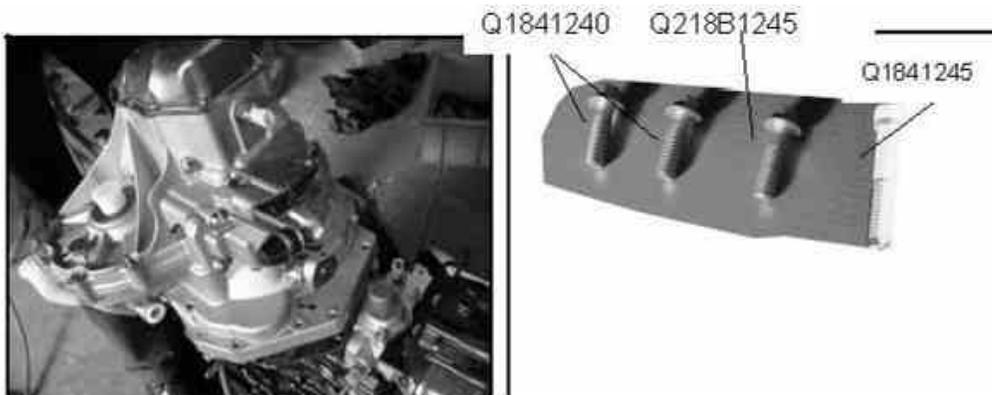


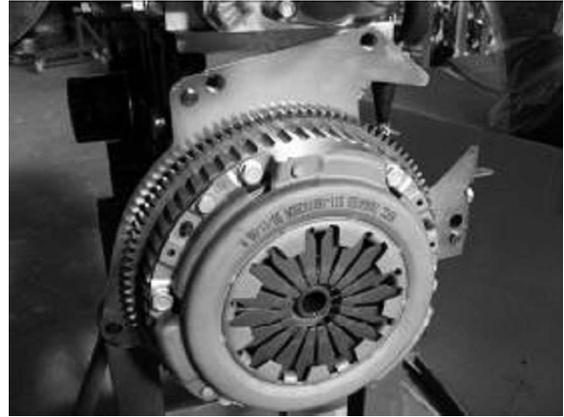
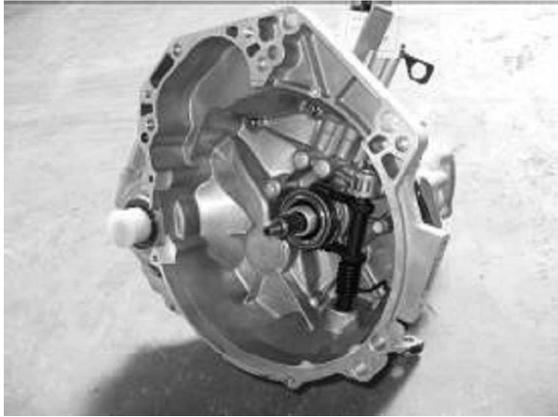
**g. Clutch replacement**

1. Remove two bolts, and demount Starter-assembly carefully.

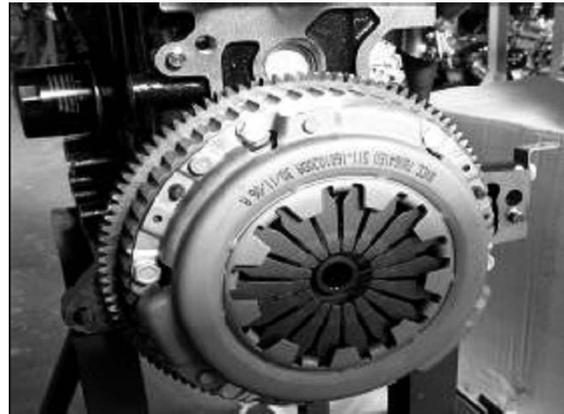


2. Remove four bolts on the transmission case, lay down these carefully. Caution: When fix the four bolts in the transmission case; you must tighten them according to the prescribed torque 45-55N.M.

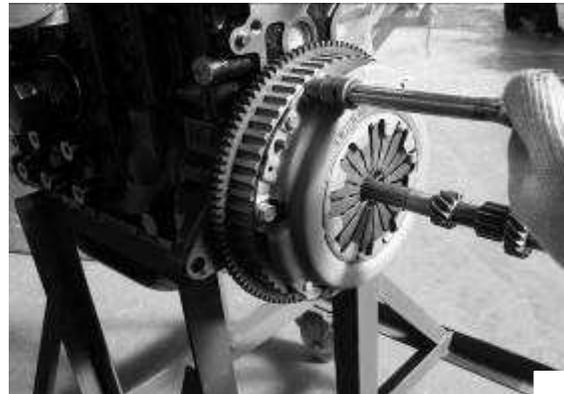
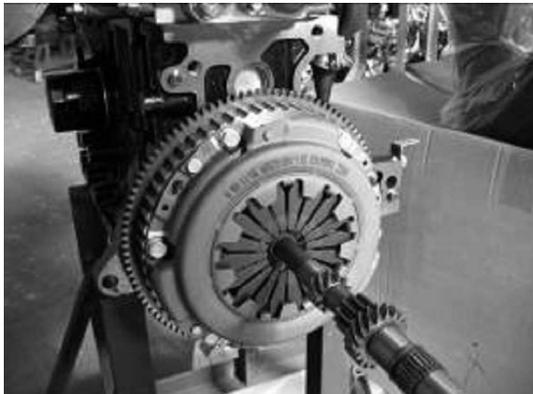




3. Remove upper steel cushions and lower steel cushion.



4. Insert a spine-shaft into the hole of the Clutch assy , remove the six bolts on the Clutch pressure plate, now It's clear. **Caution:** When fix the six bolts in the Clutch pressure plate; you must tighten them according to the prescribed torque 28 N.M.





5. Insert a spline-shaft into the hole of the Clutch assy , fix the six bolts on the Clutch pressure plate ,tighten them according to the prescribed torque 28 N.M .



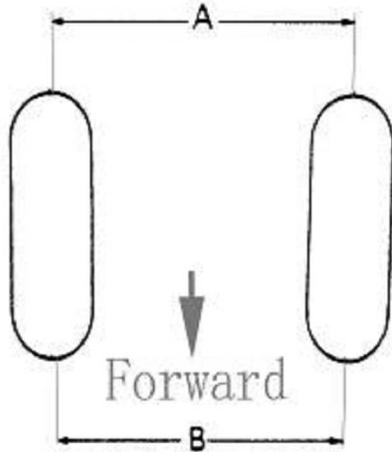
6. Fix parts according to reverse operation to the disassembly.

### h. Front Wheel Alignment

Put the vehicle on level ground.

The “tie-in” of the front wheels should be 15mm. To check alignment, measure distance A and B between the centerline (CL) of the wheels. The proper toe-in dimension A should be 15mm greater than dimension B.

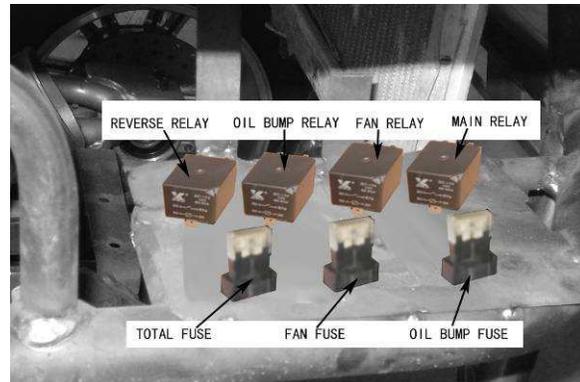
To adjust the alignments, loose the lock nuts on both sides of Front Tie Rods. To make Dimension B smaller, turn the rod to the left. Turn the rod to the right to make Dimension B larger. After adjusted to desired length, tighten the lock nut against the rod end. Recheck the dimensions for proper alignment.



### i. Fuse and relay

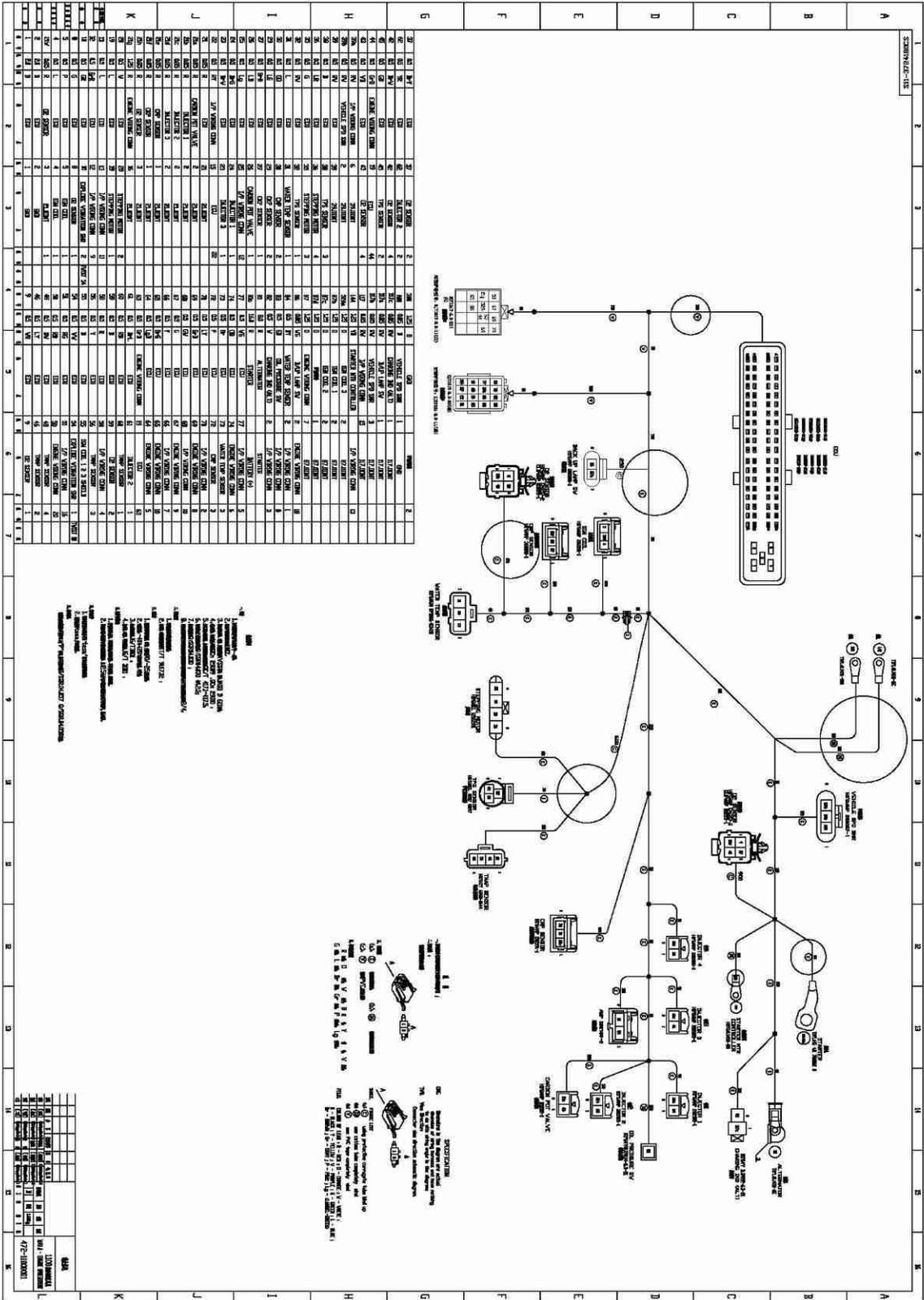
Open the electric box ,check or replace fuses:

- 1.Take off the cover of the fuse box. Press the hook down and pull off the cover.
- 2.Check and replace the fuse according the fuses and relays diagram.

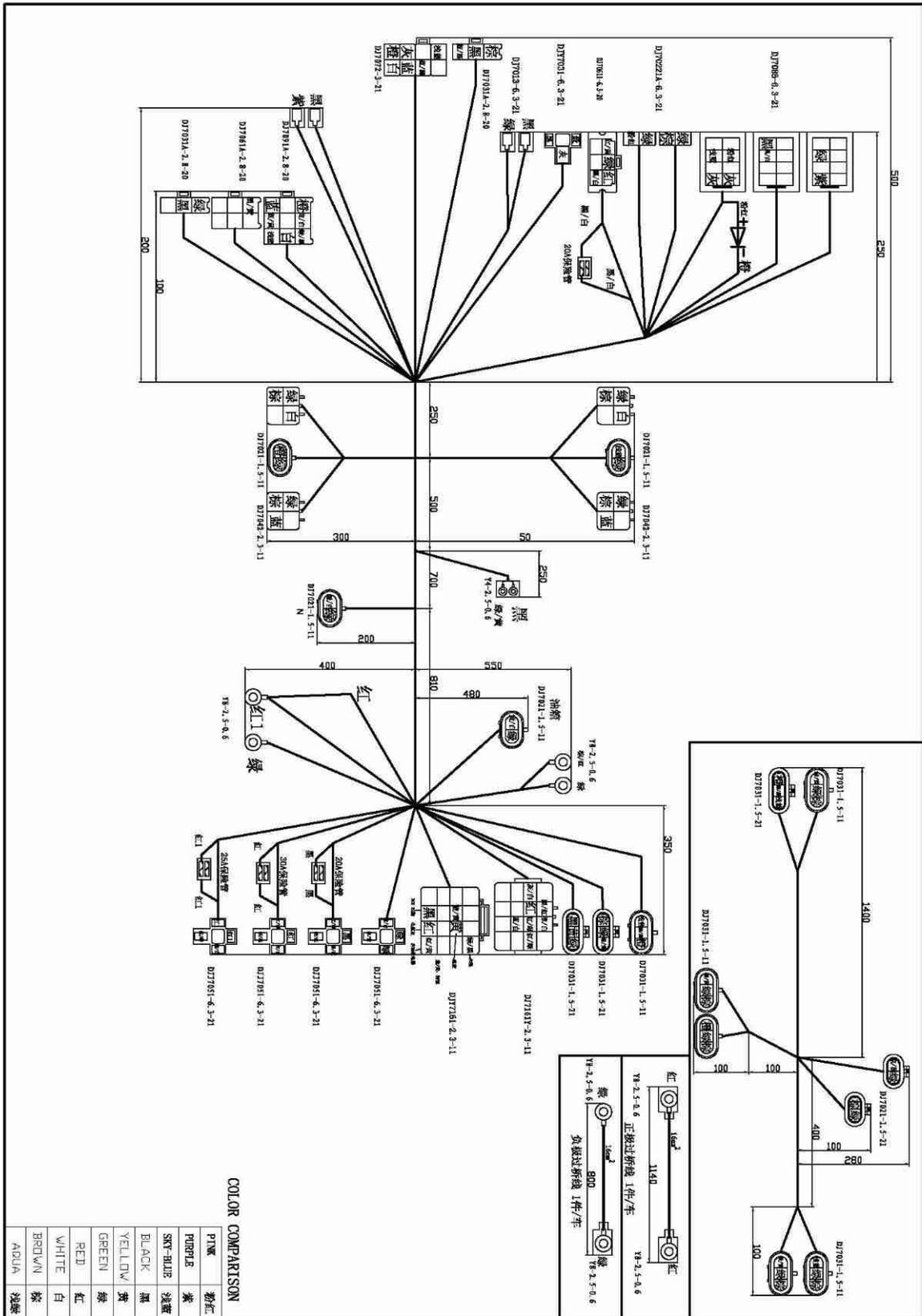




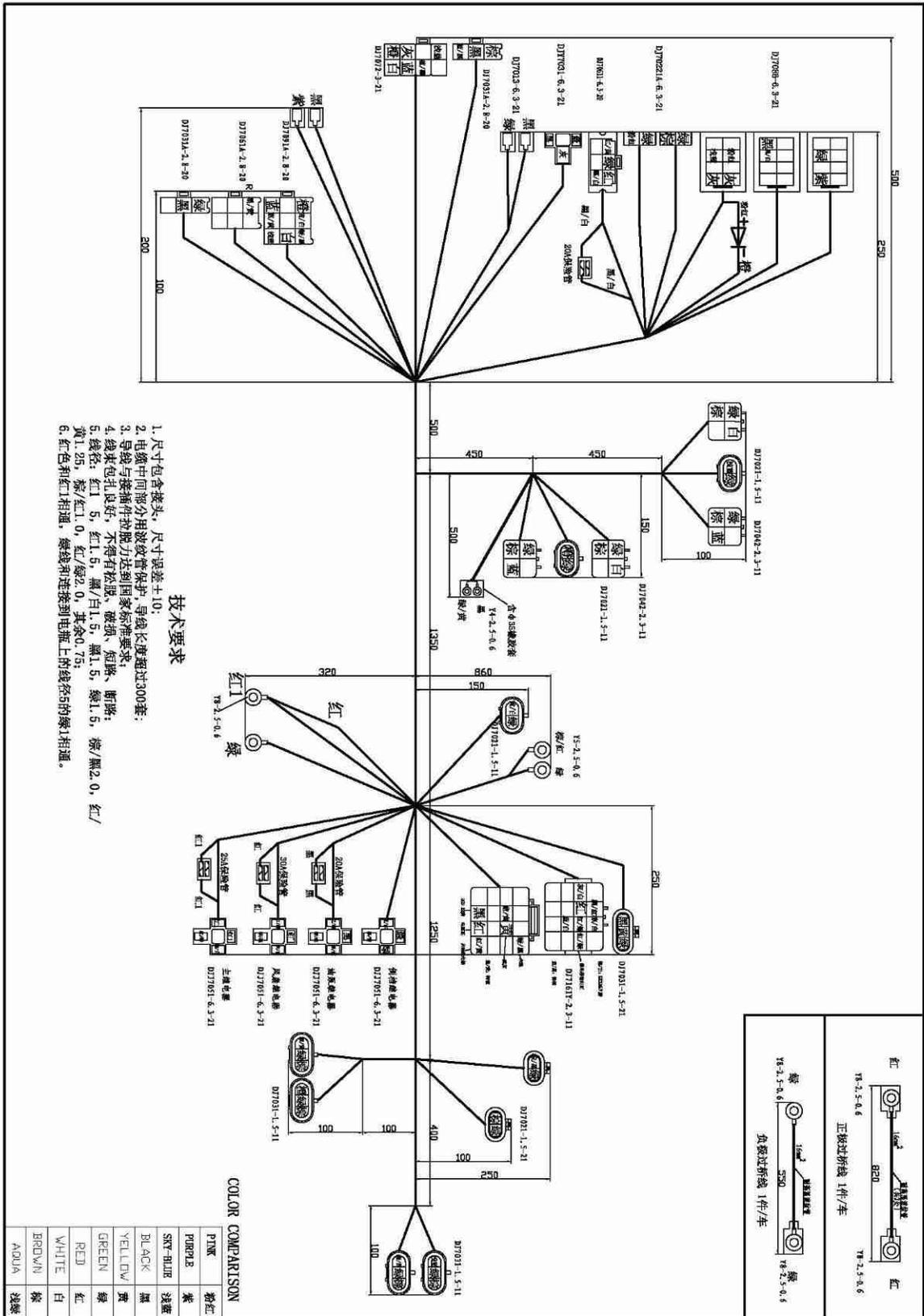
# k. Engine Wiring Diagram(1100cc)



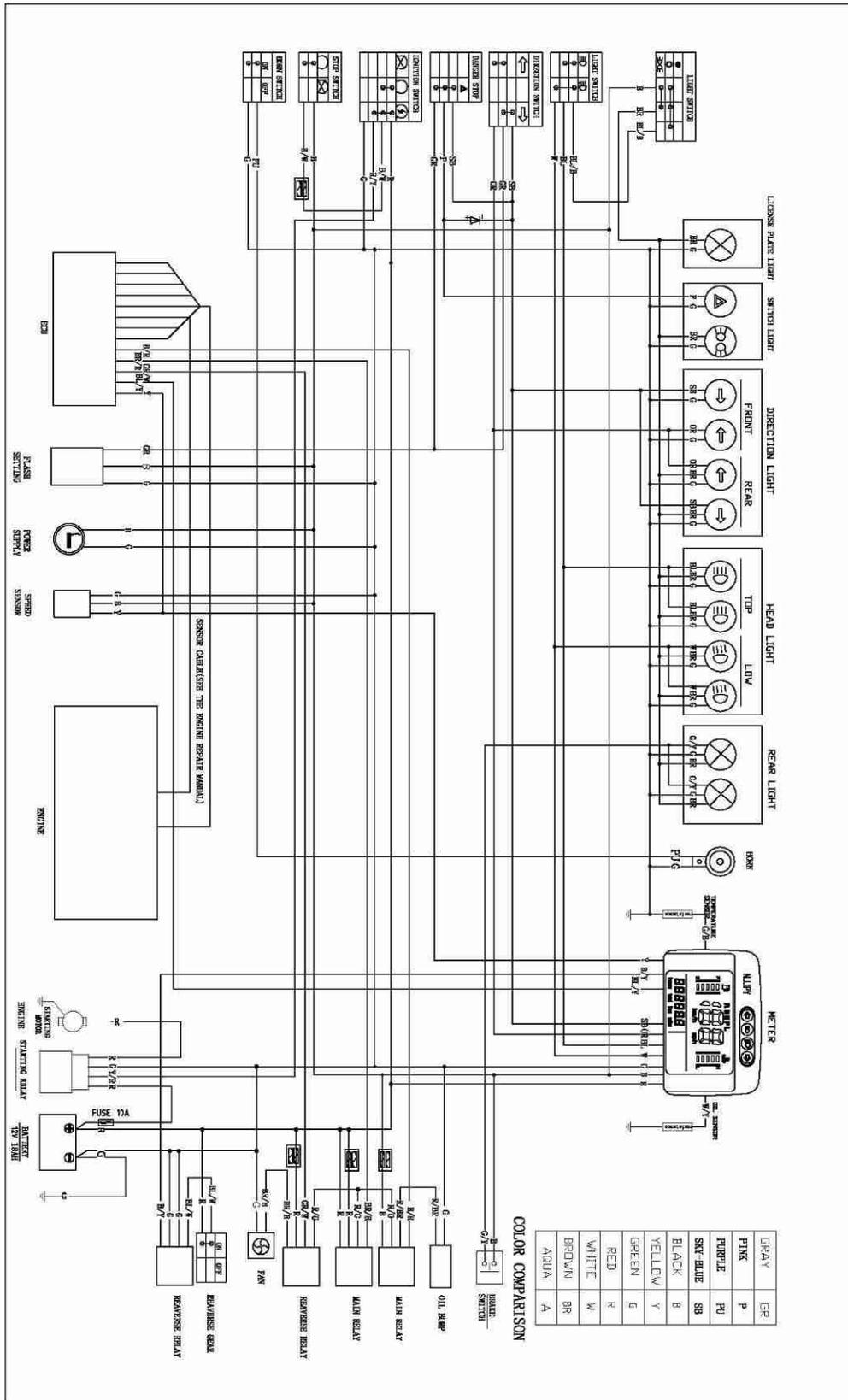
# I. Main Wiring Diagram (800cc/1100cc 4×2)



### m. Main Wiring Diagram (800cc/1100cc 4×4)



## n. Electrical schematic diagram



## B. Engine maintenance

### a. Service Air Cleaner

Service air filter every 80 hours

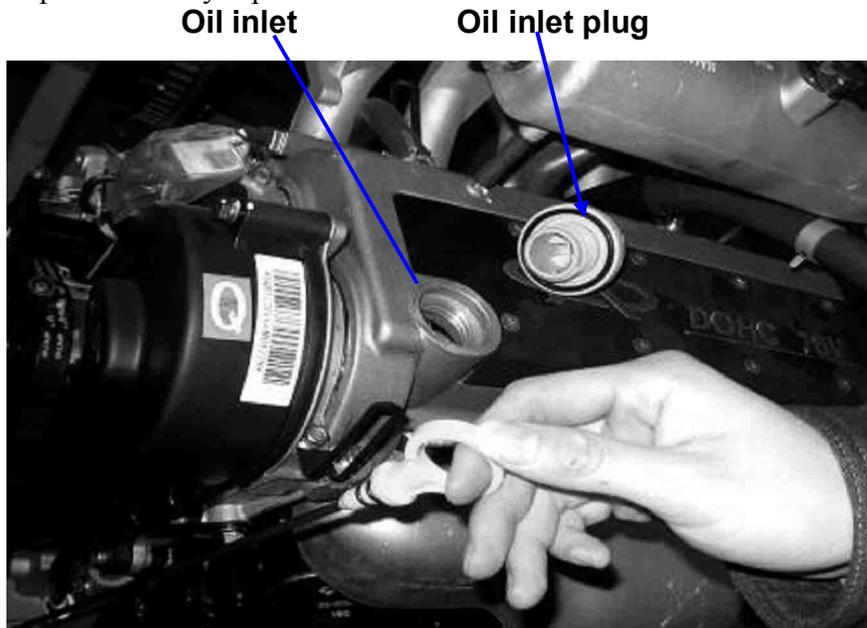
**NOTE:** Service more often under dusty conditions. Remove filter cover (See Fig. 35). Check the filter cover and the air filter, if the filter cover and the air filter are dusty, please clear the filter cover and replace with a new air filter.



### b. Engine Lubrication

#### Engine oil replacement

You must change the oil in the crankcase after the first 10 hours of operating of your new engine and after 40 hours of use thereafter. That will insure proper lubrication of internal parts and prevent costly repairs due to excessive wear.



Oil measure



With the engine warm, put the vehicle on the level ground.

Shut down the engine, put a collecting oil plate under the engine oil outlet. Let the engine oil out Fully.

Tighten the engine oil outlet plug.

Remove the oil filler cap., fill oil (SAE 10W/30-50 ) about 3.86 liters to the engine.

Pull out the engine oil dip stick (see Fig. 36), confirm the corrective oil level in the crankcase..

### **Check engine oil and recharge**

If the color of engine oil changes, you need to replace the engine oil as above.

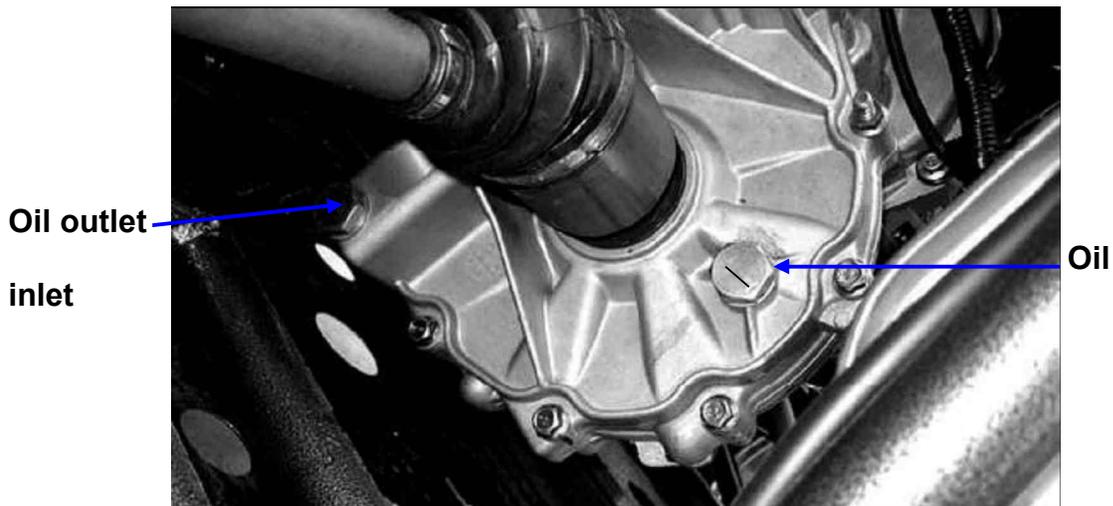
Check the engine oil level; charge from 2.1.4 as above if the oil level is lower than “L”,

### **c. Transmission lubrication**

#### **Oil replacement**

You must change the oil in the transmission refer to preventative maintenance log after the first 10 hours of operating of your new engine and after 40 hours of use thereafter.

That will insure proper lubrication of internal parts and prevent costly repairs due to excessive wear



Put the vehicle on the level ground. Shut down the engine, put a collecting oil plate under the transmission oil outlet. Loosen the oil outlet plug in the transmission. Let the transmission oil out fully

Remove the iron dust plug, this plug has a magnet on it. Iron dust caused by moving parts will stick to the plug. Clean the iron dust from this dust plug.

Tighten the transmission oil outlet plug and the iron dust plug.

Remove the plug (see Fig. 39), fill oil (API 80(75) W-90 GL-3/ GL-5 Gear Oil ) about 2.0 liters.

#### **Check transmission oil**

If the color of transmission oil changes, you need to replace oil. Replace transmission oil as above.

#### d. Engine Coolant

##### Add Coolant

You must check the coolant for level and leaks. If it is low, you need to refill coolant into the assistant water tank (approximately 4500 ml). The lack of coolant will cause the engine to overheat. This can cause engine damaged.

The coolant should always be topped up, since the coolant can evaporate.

Put the vehicle on level ground..turn the reserve coolant case cap counterclockwise and open the cap.

Pour fresh coolant of the specified type into the reserve coolant tank till the coolant reaches 2/5 to 3/5 of the reserve coolant tank volume,start the engine at idle.Increase the engine rev's a few times till the coolant is at neck and no bubbles come up.

Close the reserve coolant case cap, turn it clockwise and tighten it.

Coolant inlet



#### WARNING

Opening the radiator cap while the engine is hot can be hazardous. Opening the radiator cap can spray the high temperature coolant in your eyes, face and any parts of your body. This can result in severe injury. Never open the radiator cap while the engine is hot.

#### WARNING

New and used coolant can be hazardous. Children and pets may be harmed by new or used coolant. Continuous or brief contact with coolant may be dangerous for your health. Keep new and used coolant away from the children and pets. To minimize your exposure to new and used coolant, wear a long sleeve shirt and moisture-proof gloves (such as dishwashing gloves) when you change coolant. If coolant contacts your skin, wash thoroughly with soap and water. Wash any clothing or rags if wet with coolant. Recycle or properly dispose of used coolant.

**WARNING**

Harm or damage may occur if using coolant does not meet the specification that is 50% standard green coolant and 50% distill water.

### e. Idle Speed

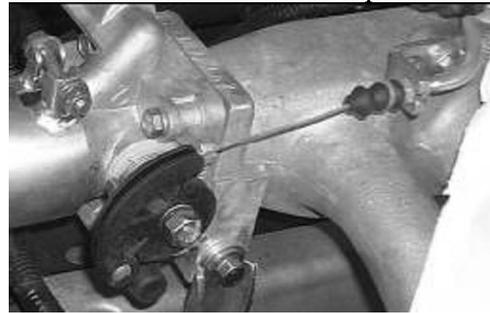
#### Adjustment

Never make unnecessary adjustments. The factory recommended settings are correct for most applications. It's not necessary to disassemble the screw unless the idle speed needs to adjustment.

Warm up the engine (5~10min)

Connect the tachometer; adjust the throttle to limit the idle speed. The standard value is (800-900RPM).

Adjust the screw and adjust the idle speed to an ideal value until the RPM of engine stables.



### f. Spark plug

#### Clean spark plug

1. Check spark plug refer to Preventative maintenance and service log, if too much carbon adhered, which will weaken the spark.
2. Clear the carbon adhered with a dry brush, and scratch the carbon adhered to insulating layncarefully with a file. And blow of dust with dry and clear air. And adjust the space to 0.9~1.1mm.



#### Spark plugs replacement

The spark plugs should be replaced every 30000km/18641miles, or 18 months. Do the following step by step.

Unscrew 8 screws and take off spark plug plastic cover.

Clean the dust in the spark plug seat.

Pull off the high-voltage wire, remove the spark plug with a special spanner.

Insert a new spark plug or a cleaned spark plug, and turn a few rounds clockwise, if retardarce happen, take it off and try it again to make sure screw engaged correctly.

Tighten spark plug with a special spanner (torque: 25Nxm/18.4Ft-Lb).  
Connect high-voltage wire in order.

### CAUTION:

Engine damage or working unsteadily may occur if:

Not install the spark plug correctly.

Use a forbidden spark plug.

To avoid damage, follow the following items:

Tighten spark plug to a required torque (25Nxm), over tightening will damage the screw.

Removing or installing a spark plug, make sure the slot aligned.

Do not pull the high-voltage wire, pulling the tube wrapping the high-voltage wire is allowed.

Other brands of spark plug are forbidden.

Make sure spark plugs hole lip is clear.

The spark plugs is hot after a long-time driving, make sure the spark plugs is not hot before operation.

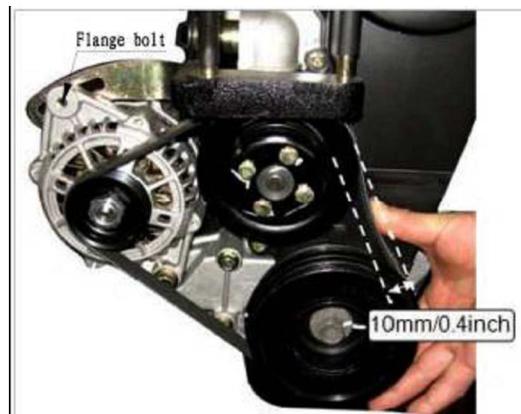


### g. Wedge belt figure

Correct installation and the proper tension will ensure electrical generator and air conditioner work well. If chap, tear, wear, or looseness happen, contact Joyner dealer and replace it immediately.

Check the belt tension:

Apply a pressure (about 100N/22.48lbf) on the belt, if the movement is more than 10mm, loosen the flange bolt and change the position of starter to tension the belt and fasten the bolt. If the belt has been wearing heavily, it is necessary to replace a new one.





## WARNING

Serious body injury or death may occur to start engine while checking the wedge belt.

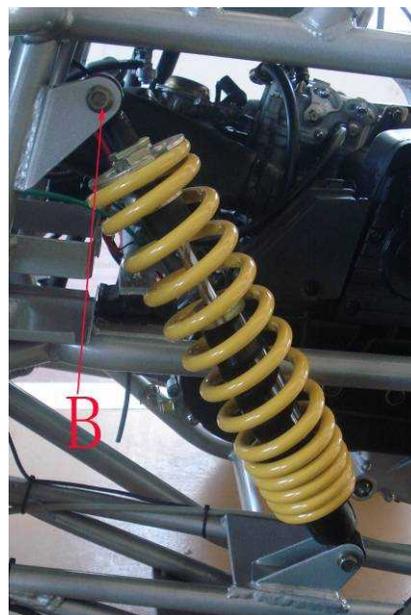
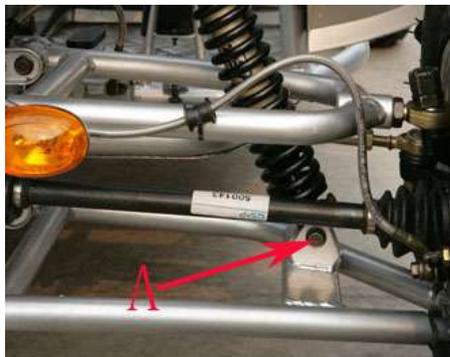
### Instruction for the installation

#### Pre-assembly Preparation

1. Check Package Box
  - 1) Check the carton shipping mark, country & city name;
  - 2) Check the product description.
2. Open Package Box
  - 1) Open the package box;
  - 2) Check for the essential part in the package box;
  - 3) Check for the accessories in the package box.
3. Prepare for Assembly  
Put the vehicle frame on the wooden rack for assembly

#### Assembly Procedure

1. Assemble Absorber Assy.,
  - Fix bolt flange M10×40 (2pcs) & lock nut flange M10 (2pcs) on the suspension arm comp, front;
  - Fix bolt flange M10×50 (2pcs) & lock nut flange M10 (2pcs) on the suspension arm comp, rear;



## 2. Assemble Front& Rear Wheel

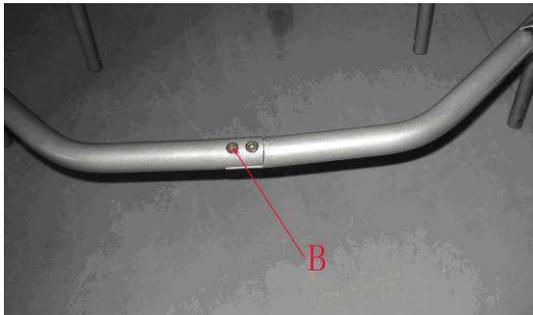
- 1) Lift up the chassis, align the 4 holes on the front rim with the 4 bolts of the front wheelhub, and fasten with 4 lock nuts flange M10
- 2) put on the axle cover.

**Notice:** The turning direction of all wheels is same with the driving direction..



## 3. Guard bar

- 1) See the picture b and c, fasten the left & right guard bar on the fram with inner hexagonal bolt M8X25 (8pcs) by 6 mm inner hexagonal wrench;
- 2) See the picture D, fasten the left & right guard bar on the fram with with bolt flange M8X60 (4pcs) and nuts M8 (4pcs) by wrench.



#### 4. Assemble Rearview Mirror

- 1) Assemble the rearview mirror into the fixing hole on the bumper;
- 2) Then fasten with lock nuts M6 × 14 by 5mm inner hexagonal wrench.



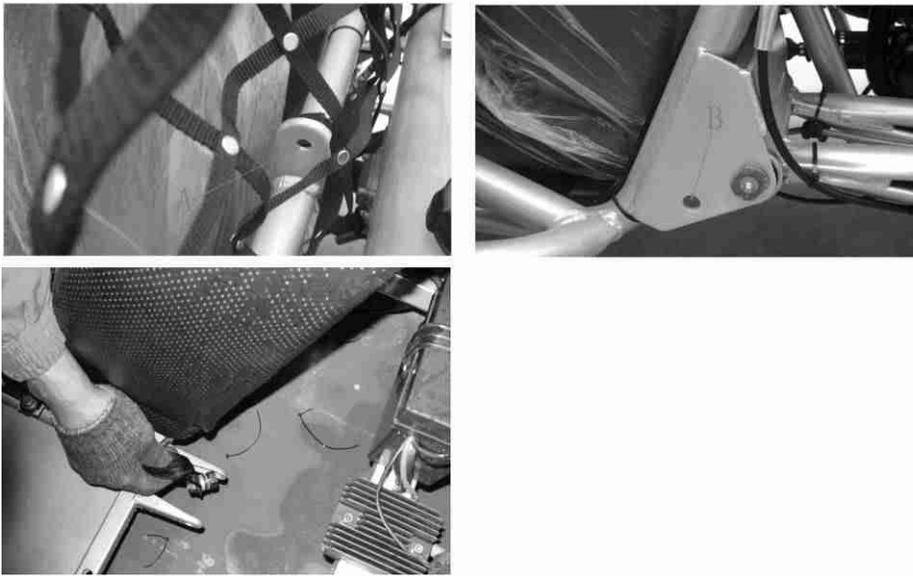
#### 5. Assemble Seat

Put the slide orbit bolt to the frame. then fasten it with lock nut flange M8 (8 pcs), see the picture.



#### 6. Assemble Seat Belt

- 1) See figure , make seat belt up connection bolt & installation board through the frame then fasten it with seat belt nut.
- 2) See figure , make seat belt lower right bolt & installation board through the frame then fasten it with seat belt nut.
- 3) See figure , make seat belt lower left bolt & installation board through the frame then fasten it with seat belt nut.



#### 7. Assemble Fender

1) See figure A, assemble the front fender complete to frame, fasten the front fender with hexagonal bolt  $M6 \times 16$  (4 pcs), cruciate bolt  $M6 \times 16$  (2 pcs).

2) See figure B, assemble the rear fender complete to frame and fasten it with hexagonal bolt  $M6 \times 16$  (2 pcs), cruciate bolt  $M6 \times 16$  (4 pcs).



#### 8. Assemble top cover

Assemble top cover on the vehicle with bolt  $M6 \times 16$  (4 pcs);

9. Assemble the Trailer hook (See figure A)

Fasten trailer hook to frame with hexagonal bolt M10×25(3pcs) & lock nut M10(3pcs).



10. Add water to water tank, please according to our user manual.

11. Assemble the battery in the bracket, battery, Assemble the anode cable and the cathode cable on the battery