# **OWNER'S MANUAL**



This manual describes the basic operation and maintenance for the ATV, which should be read carefully before operation.

#### **FOREWORD**

Thanks for purchasing the ATV of our company.

With the help of this manual, you will learn the correct procedures of operation and basic knowledge of maintenance and trouble shooting of the ATV. It presents all the details of the performance of ATV to you and the vehicle will make your life more relaxed and happier.

If you have any question about the operation, maintenance or assembly of the ATV, please don't hesitate to contact the designated service center nearby and we will satisfy your demands based on the principle of "Quality first" and "Users first". Your comments are precious and welcome.

Products are always subject to further improvement, which will cause some difference between the vehicle and this manual, without further notice.

#### IMPORTANT NOTICE

All-Terrain Vehicle riding is a wonderful sport, and we hope you will enjoy it to the fullest. Please check your local riding laws and regulations before operating this ATV.

Read this manual carefully and completely before starting your new ATV

It contains important safety information. Never operate this ATV without proper instruction. Beginners should take a training course before operating this ATV.

Never allow a child under the age 16 to operate this ATV.

Use of this ATV by children under 16 years of age may lead to severe injury or death of the children. Even youths at or over age 16 may not have the skills, abilities, or judgment needed to operate this ATV safely. To protect your safety, make sure you use your ATV legally, show concern for the environment, and respect the rights of other people.

#### IMPORTANT NOTICE TO PARENTS AND ADULTS

- This ATV is not a toy.
- You should understand the instructions and warnings in this manual before you let your child ride this ATV. Then be sure your child understands and will follow them.
- This ATV should only be operated under the direct supervision of an adult.
- Never exceed your riding capabilities.
- This ATV can be hazardous to operate, avoid excessive speed, paved surfaces, sharp turns, and uneven terrain.
- Adults should adjust the throttle for slower speeds.
- Children differ in skills. Some children may not be able to operate an ATV safety. Parents should permit should permit continued use only if they determine that the child has the ability to operate the ATV safety.
- If your child is inexperienced in riding ATV. He or she should take a training. Course before operating this ATV.
- Always wear a helmet and other protective wear when riding this ATV.
- Any unauthorized modification of the vehicle or replacement of the original parts can not ensure driving safety and is illicit. The user must observe the regulations of the traffic control authorities. We are not responsible for any vehicle with unauthorized modification.

#### SAFETY RIDING RECOMMENDATIONS

#### 1 FAMILIARIZE YOURSELF WITH THE ATV

Your riding skill and your mechanical knowledge form the safe riding practices. We suggest that you practise riding your ATV in a non-traffic situation without obstacles until you are thoroughly familiar with your ATV and its controls. Remember that practice makes perfect.

## (2) KNOW YOUR SAFETY SPEED LIMITS

Ride within the boundaries of your own skill at all times. Knowing these limits and staying within them will help avoid accidents.

#### (3) BE EXTRA SAFETY CONSCIOUS ON BAD WEATHER DAYS

Riding on bad weather days, requires extra caution. Braking distance doubles on a rainy day. Stay off the painted surface marks, pot holes and greasy appearing areas as they can be especially slippery. Useextreme caution at railway crossings and on metal gratings. Whenever in doubt about road conditions, SLOW DOWN!

# **CONTENTS**

FOREWORD	1
IMPROTANT NOTICE	2
IMPORTANT NOTICE TO PARENTS AND ADULTS	3
SAFETY RIDING RECOMMENDATIONS	4
CONTENTS	5
WARNING STICKER	7
VIN RECORD	8
CONTROLS	9
Key	9
Ignition switch	9
COMPONENTS LOCATION	10
LEFT HANDLEBAR	12
RIGHT HANDLEBAR	13
REAR BRAKEPEDAL	14
SEAT	14
GEARSHIFT LEVER	15
FUEL TANK	16
FUEL COCK	16
CARBURETOR	17
PRE-OPERATION INSPECTION	18
Brake	19
LUBRICATION	
TIRES	
OPERATION	
STARTING A COLD ENGINE	. 20

ENGINE BRAKE-IN	24
PARKING	24
RIDING YOUR ATV	25
PERIODIC MAINTENANCE AND ADJUSTDENT	31
ENGINE OIL	31
SPARK PLUG INSPECTION	32
BRAKES	33
DRIVE CHAIN	35
THROTTLE ADJUSTMENT	. 37
CHECK-UP & CLEANING OF AIR FILTER	37
BATTERY	38
TROUBLESHOOTING	39
FUSE REPLACEMENT	. 40
CLEANING AND STORAGE	40
RESUMPTION OF SERVICE/MAINTENANCE PROCEDURES	42
SPECIFICATIONS	44
SCHEMATIC CIRCUIT DIAGRAM	46
SCHEMATIC DIAGRAM OF WASTE GAS RECOVERY	47
WARRANTY	48

## **Warning Sticker**



#### IMPROPER USE CAN RESULT IN SEVERE INJURY OR DEATH



ALWAYS USE AN APPROVED HELMET AND PROTECTME GEAR FOR DRMER AND PASSENGER



ON PUBLIC

ROADS



PASSENGER





NEVER USE WITH DRUGS OR ALCOHOL

NEVER
OPERATE THIS
ATV IF YOU
ARE UNDER AGE 16

NEVER OPERATE:

- · without proper ATV training or instruction.
- · at speeds too fast for your skills or the conditions.
- on public roads a collision can occur with another vehicle.
- · with a passenger unless passenger seat is securely in place;

#### THE OPERATOR MUST ALWAYS:

- use proper riding techniques to avoid overturns on hills and rough terrain and in turns
- avoid paved surfaces pavement may seriously affect handling and control
- reduce speed and use extra caution at all times when carrying a passenger-dismount passenger when conditions require;
- make sure passenger reads and understands this label and passenger safety label.

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

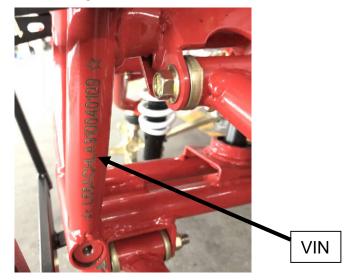
## **VIN Record**

Please fill the VIN and engine code of your motorcycle on the blank below. They will help order spare parts and find out if the vehicle was stolen.

VIN:		
Engine code:		

## Note:

- The VIN is stamped on the frame.
- The engine code is stamped on the bottom left of the crankcase.





## **Controls**

## **KEY**

This ATV comes with a pair of identical ignition keys. Keep the spare key in a safety place.

## **IGNITION SWITCH**

Functions of the respective switch positions are as follows:

OFF: All electrical circuits are switched off.

The key can be removed in this position.

O -- ON: All electrical circuits are connected and the engine can be started.



# **Components location**





#### Left handlebar

#### 1. Start switch

Push the switch "(\$\frac{1}{2}\$)" starter button to let the engine starter motor cank the engine .

Note: If the starter switch is pushed with the ignition switch "ON" and the emergency engine stop switch "OFF", the starter motor will be activated but the engine will not start. To start the engine, make sure the emergency engine stop switch at "Run" position.

## 2. Lamp switch

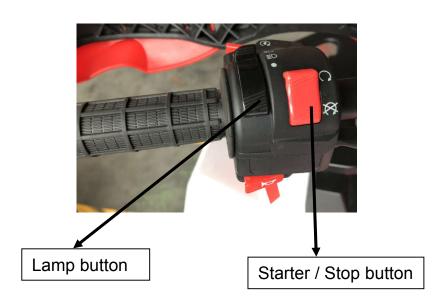
 The headlamp, position indicator lamps, tail lamp do not come on.

Whenever the engine runs or goes off, the position indicator lamps and tail lamp can be lighted up to give a warning signal.

## 3. Engine stop switch

The switch must set this position when start the engine.

When the switch set this position, the engine will stop.



## **Right Handlebar**

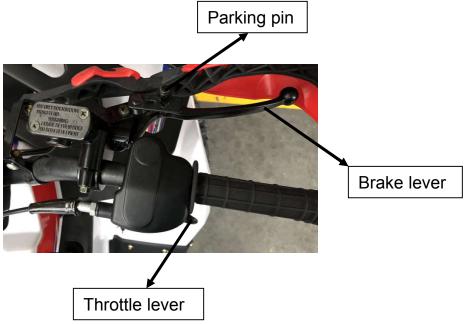
#### Throttle lever

**Accelerate:** Press the throttle lever. **Decelerate:** Release the throttle lever.

The spring of the lever will return to the prior pressing position and the engine will return to an idle. Before starting the engine, check the throttle lever to make sure it is operating smoothly.

Make sure it return to idle position as soon as the lever is

released.



#### POTENTIAL HAZARD

Malfunction of throttle.

#### What CAN HAPPEN

The throttle lever could be hard to operate, cause it difficult to speed up or slow down when you need to.

This may cause an accident.

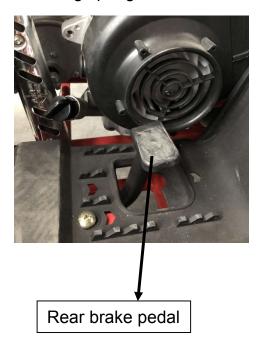
#### **HOW TO AVOID THE HAZARD**

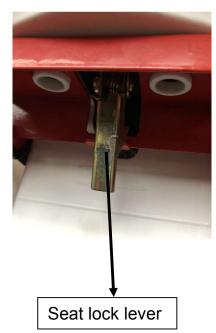
Always check the operation of the throttle lever before you start the engine. If it does work smoothly, check for the reason. Correct the problem before riding this ATV. Consult your dealer if you cannot find or solve the problem by yourself.

#### **Rear Brake Pedal**

The brake pedal is located on right side of the engine.

Pressing down the rear brake pedal will activate the rear brake. Once the rear brake pedal is pressed down, the rear brake are in operation. The rear brake pedal should return back to its normal position by the spring after the pressure release. Replace the returning spring if it is not functioned normally.



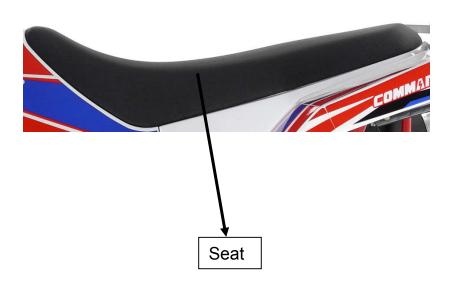


#### Seat

Removing the seat by pulling the seat lock lever upward and pull up the seat at the rear. Insert the projection on the front of the seat into the holder and push down on the seat atrear to install the seat.

#### Note:

Always make sure the seat is securely fitted.



#### Gear shift lever

This ATV is equipped with CVT transmission with reverse. The gear shift lever is located on the right side of ATV. Push back the gear shift lever to change the gear is  $\bf R$ . The  $\bf N$  is on neutral.

Push forwarder the gear shift pedal to change the gear is **F**.



## Warning

Extra attention should be paid to the functioning of the neutral lights on head cover while shifting the gears. To slow down immediately, shift the high speed gear to the neutral gear or even further to the lowest gear, although this is quite dangerous, it may cause rider to lose his/her balance or the gravity of the maneuvering to the ATV.

#### Caution

Never shift the high speed gear to the lowest gear when not pay attention to the illumination of the neutral lamp.

Before shifting the gear forwarder or gear b a c k, reduce the ATV speed by releasing the throttle lever.
Shift the gear pedal gently and swiftly.

#### **Fuel Cock**

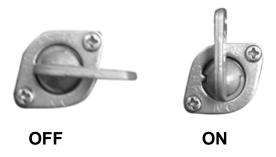
The fuel cock is below the fuel tank. To switch the fuel cock at three positions:

#### ON:

Normal position while operating the ATV. At this time, the gasoline flows through the fuel cock into the carburetor.

#### OFF:

Shut off the fuel flows by this position, always put the fuel lever to "OFF" position if the engine should stop for a period of time.

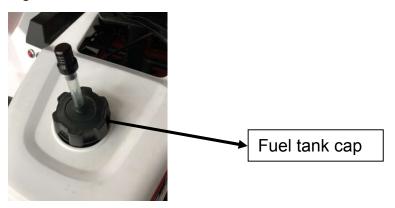


#### **Fuel Tank**

The fuel tank is plastics, Its maximum capacity is 6L.

## Warning

- Don't over fill the fuel tank
- Always shut off the engine by turning the ignition key to the 'OFF' position while refueling.
- Never refuel near an open flame or lit cigarettes.
- Take special care of not spilling the gasoline during refueling, always clear off the fuel stain or residual before starting the engine.



#### Carburetor

Changing the basic setting of the carburetion will also change the performance of the ATV which you ought to expect from your engine. The carburetor is factory set for its best working condition. Do not attempt to alter or change its setting.

## Carburetor idle speed check and adjustment

- 1. Start up the engine and warm it up.
- 2. When the engine is warmed up, turn the adjust screw in or out to set the engine runs at about 1700r/min ± 100r/min.

#### **Choke lever**

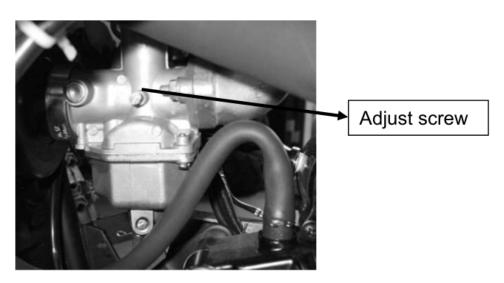
The lever on the carburetor. If the cool starting use chock lever then the engine starting easy.

#### NOTE

The engine idle speed adjustment should be carried out when the engine is in warmed state.

#### **CAUTION**

It is suggested that this adjustment be conducted by approved your dealer.



## **PRE-OPERATION INSPECTION**

Always checking the following points before using the ATV .

INSPECTION ITEM	INSPECTION PROCEDURE
Brakes	<ul> <li>Check the operation, condition and free play.</li> </ul>
	<ul> <li>Adjust if necessary.</li> </ul>
Fuel	Check the fuel Level. Fill fuel if necessary.
Engine oil	Check engine oil level.
	<ul> <li>Fill the engine oil if necessary.</li> </ul>
Throttle	Check for proper operation of throttle cable.
	<ul> <li>Smooth operation and Positive return of the throttle</li> </ul>
	lever to the closed position.
Battery	Check the level of fluid.
Switches	Check all switches.
Fittings and Fasteners	Check all fittings and fasteners.
Wheels and Tires	Check tire pressure, wear and damage.
Steering	Smoothness
	<ul> <li>No restriction of movement; No play or looseness</li> </ul>
Horn	Works Properly
Lighting	<ul> <li>Operation of all lights and indicator lights, headlamp, tail lamp, brake lamp etc.</li> </ul>

## Warning

## **POTENTIAL HAZARD**

Failure to check the ATV before operating Failure to maintain the ATV properly

#### WHAT CAN HAPPEN

It could cause an accident or equipment damage.

## **HOW TO AVOID THE HAZARD**

Always check your ATV carefully each time before your use it to be sure the ATV is in safe operation condition.

Always follow inspection and maintenance procedure as shown in the owner's manual.

#### **Brakes**

## 1. Brake operation

Test the brakes at slow speed after starting to make sure they are working properly.

If any of the bakes does not provide proper braking function, inspect the brake for wear.

## 2. Brake pedal and brake lever.

Check the correct free play in the brake pedal and brake levers. Adjust it if the free play is incorrect.

## **WARNING**

## **POTENTIAL HAZARD**

Improperly operating brakes while riding.

#### WHAT CAN HAPPEN

The braking ability could lose and cause an accident

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

Always check the brakes every time before you start to ride. Do not ride the ATV if you find there is any problem with the brakes. Find your dealer to inspect it if you cannot correct the problem by yourself according to the adjustment procedures provided in this manual.

#### Fuel

Always fill regular unleaded gasoline to your ATV. Do not use leaded gasoline, it will cause damage to internal engine parts and also there is very big influence to the environmental pollution.

If knocking or pinging occurs, use a different brand of gasoline or premium unleaded fuel.

## Warning

Do not overfill the fuel tank. Be careful not to spill fuel, especially on the engine or exhaust pipe. Make sure the fuel tank cap is closed securely.

Do not refuel right after the engine has been running and is still very hot.

#### Lubrication oil

The quality of the engine oil plays a vital role in deciding the engine performance and service life. Engine oil must be selected in accordance with the rules below and other oils, such as ordinary engine oil, gear oil, and vegetable oil, are forbidden to be used. Engine oil recommended:

≥		2W50							
Machine		5W40 - 15W50							
5530		10W40 - 10W50							
<u>Q</u>		10W30							
С	-30	-20	-10	0	10	20	30	40	
F	-22	-4	14	32	50	68	86	104	

SAE15W/40-SE class or SE, SF, SC class from API service classification. The vehicle has been filled with the engine oil of SAE15W/40-SE class by the manufacturer, and lubricant is only suitable at a temperature range of to -10° ~ 40°C. If other motor oil is to be used instead, the alternative must be technically equivalent in every respect. Viscosity varies with regions and temperatures, so the lubricant has to be selected according to our recommendation(above graph).

Before replacing the lubricant, drain the oil out completely from the crankcase, and clean the inside with kerosene, then fill with new oil.

Renewal of Machine Oil

Machine oil plays a very important role in the normal operation of the engine and for this reason, it is necessary to check the motorcycle for machine oil periodically and renew the oil once every 800-1,000km of driving by the following procedures. Remove the screw plug from the bottom of the hot engine to drain off all old oil.

Wash the oil filter screen clean and remount it really to position. Then fill machine oil and start the engine for idle running 2-3 minutes.

Let the engine stop for 1-2 minutes and check to see whether the oil level is in between the upper and lower lines of the oil gauge.

Do not use any machine oil of a different grade than the specified one to avoid machinery failure.

#### **Tires**

Tire inflation pressure and the general tire condition are extremely important to the proper performance and safety of the ATV, check your tires frequently for both wear and inflation pressure.

#### NOTE:

Before you ride, check the tires for cuts, embedded nails, or other sharp objects.

Check the rims for dents or deformation.

See your dealer for change of damaged tires.

## Warning

## POTENTIAL HAZARD

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

## **WHAT CAN HAPPEN**

Operating this ATV with improper tires, or with improper or uneven tire pressure could cause loss of control and an accident.

## **HOW TO AVOID THE HAZZARD**

Always let the front and rear tires pressure are natural.

Do not attempt to patch a damaged tire. Wheel balance and tire reliability may be impaired.

## **Operation**

## Warning

Indicates a potential hazard that could result in serious injury or death.

## **POTENTIAL HAZARD**

Operating ATV without being familiar with all controls.

## **WHAT CAN HAPPEN**

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

## **HOW TO AVOID THE HAZARD**

Read this manual carefully. If you don't understand any control or function, ask your dealer.

## Starting a cold engine

- 1.Set the parking brake;
- 2. Turn the fuel cock to "ON";
- 3. Turn the engine stop switch to "RUN";
- 4. Turn the ignition switch to "ON";
- 5. Shift the transmission gear to neutral;
- 6.Use the choke lever.
- 7. Complete close the throttle lever.
- 8. Push the start switch to crank the engine.
- 9.After the engine runs, release the start button. If the engine fails to start, release the start button, then push it again, Each cranking should not be more than 10 seconds.
- 10.Keep warming up the engine for 5 minutes. then make choke lever to the original place.

## Warning

## **POTENTIAL HAZARD**

Apply a lower gear when the engine speed is too high.

## **WHAT CAN HAPPEN**

The wheel could stop rotating. This could cause an accident, loss of control, injury and damage of the engine.

## **HOW TO AVOID THE HAZARD**

Always shift to lower gear before you make sure that the engine has sufficiently slowed.

## **Engine break-in**

The most important period in the life of your engine is between 0 and 20 hours. Please read the following information very carefully. Do not put an excessive load on the ATV for first several hours of running.

Never continuous operation above half throttle.

Cool off the engine for ten minutes after every hour of operation.

Vary the speed of the engine from time to time.

## **Parking**

When parking, stop the engine and shift into neutral. Turn the fuel cock lever to "OFF" position and apply the parking brake. Never parking on hills or other inclines.

## **Riding Your ATV**

## Warning

Indicates a potential hazard that could result in serious injury or death.

Read call caution and warning labels on your ATV and pay particular attention to the safety information .

#### RIDE WITH GARE AND JUDGMENT

## **Know you ATV before riding**

The skills and techniques described in this section are appropriate for all types of riding. Riding this ATV requires special skills. Take the time to learn the basic techniques well before attempting more difficult maneuvers.

For your safety, be sure you have read this Owner's Manual completely and understand the operation of the controls before you begin to ride.

## Get training if you are inexperienced

Beginners should get training from a certified instructor. Start at slow speeds first to be familiar with this ATV even if you are an experienced rider.

Do not operate at maximum performance until you are totally familiar with the ATV's handling and performance characteristics.

Take the time to learn the basic techniques well before attempting more difficult maneuvers.

## Never allow children under 16 years old to ride this ATV.

This ATV is designed to carry the operator only, never carry a passenger.

The long seat is to allow the operator to shift position as needed during operation. It is not a design for carrying passenger.

#### Apparel

Always wear an approved motorcycle helmet that fits properly. You should also wear eye protection (face shield or goggles), gloves, boots, long-sleeve jacket and long pants.

Do not operate after consuming alcohol or drugs.

Operator's performance capability is reduced by the influence of alcohol or drugs.

#### **Pre-operation checks**

Always perform the pre-operation checks listed before riding for safety and proper care of your ATV.

## **During operation**

Always keep your feet on the footrest during operation. Otherwise your feet may contact the wheel and could cause injury. Avoid wheelies and jumping. You may loose control of the ATV or overturn.

## **Turning your ATV**

To achieve maximum traction while riding, the two rear wheels are mounted solidly on one axle and turn together at the same speed. Therefore, unless the wheel on the inside of the turn is allowed to slip or lose some traction, the ATV will resist turning. A special turning technique must be used to allow the ATV to make turns quickly and easily. It is essential that this skill be learned first at low speed.

## Climbing uphill

Use proper riding skill to avoid vehicle overturns on hills. Be sure that you can maneuver your ATV well on flat ground before attempting any incline and then practice riding first on gentle slopes. Try more difficult climbs only after you have learned more skills. In all cases avoid inclines with slippery or loose surfaces, or obstacles that might cause you to out of control. It is important when you climbing a hill to make sure that your weight is transferred forward on the ATV. This can be accomplished by leaning forward and, on steeper inclines, standing on the footboards and leaning forward over the handlebars.

If you are climbing a hill and you find that you have not properly judged your ability to make it to the top, you should turn the ATV

around while you still have forward motion (provided you have the room to do so) and descend the hill.

If your ATV has stalled or stopped and you believe you can continue up the hill, restart carefully to make sure you do not lift the front wheels which could cause you to out of control. If you are unable to continue up the hill, dismount the ATV on the uphill side. Physically turn the ATV around and then go downhill. If you start to roll backwards, DO NOT use the rear brake to stop or try to put the ATV in gear. The ATV could easily tip over backwards. Instead, dismount the ATV immediately on the uphill side.

## Riding downhill

When riding your ATV downhill, shift your weight as far to the rear and uphill side of the ATV as possible. Move back on the seat and sit with your arms straight. Choose a low gear which will allow the engine compression to do most of the braking for you. Wrong braking may lead to a loss of traction. Use caution while descending a hill with loose or slippery surfaces. Braking ability and traction may be adversely affected by these surfaces. Wrong braking may also cause a loss of traction If possible, ride your ATV straight downhill. Avoid sharp angles which could cause the ATV to tip or roll over. Carefully choose your path and ride no faster than you will be able to react to obstacles which may appear.

## Crossing a slope

Crossing a sloping surface on your ATV requires you to properly position your weight to keep proper balance. Make sure that you have learned the basic riding skills on flat ground before attempting to traverse a sloping surface. Avoid slopes with slippery surfaces or rough terrain that may disturb your balance. As you travel across a slope, lean your body in the uphill direction. It may be necessary to correct the steering when riding on loose surfaces by pointing the front wheels slightly uphill. When riding on slopes be sure not to make sharp turns either up or downhill. If your ATV does begin to tip over, gradually steer in the downhill direction of there are no obstacles in your path. As you regain proper balance, gradually steer again in the direction you wish to travel.

#### **Crossing through shallow water**

The ATV can be used to cross slow moving, shallow water of up to a maximum of 20cm (7.9 inches) in depth. Before entering the water, choose your path cautiously. Enter where there is no sharp drop off, and avoid rocks or other obstacles which may be slippery or upset the ATV. Ride slowly and carefully.

Test your bakes after leaving the water. Do not continue to ride your ATV without verifying that you have regained proper braking ability.

#### Riding over rough terrain

Riding over rough terrain should be done with caution. Look out for obstacles which could cause damage to the ATV or could lead to an upset or accident. Be sure to keep your feet firmly fixed on the footrest at all times. Avoid jumping the ATV as loss of control and damage to the ATV may result.

## **Sliding and Skidding**

Care should be used when riding on loose or slippery surfaces since the ATV may slide. If unexpected and uncorrected, sliding could cause an accident.

To reduce the possibility for the front wheels to slide in loose or slippery conditions, putting your weight over the front wheels will sometimes help.

If the rear wheels of your ATV start to slide sideways, control can usually be regained (if there is place to do so) by steering in the direction of the slide. Applying the brakes or accelerating is not recommended until you have corrected the slide. With practice, over a period of time, skill at controlled sliding can be improved. The terrain should be chosen carefully before attempting such maneuvers, since both stability and control are reduced. Bear in mind that sliding maneuvers should always be avoided on extremely slippery surfaces such as ice, since all control may be lost.

#### What to do of if...

This section is designed to be a reference guide only. Make sure to read each section on riding techniques completely. **What to do** ...?

- If your ATV doesn't turn when you want it to: Bring the ATV to a stop and practice the turning maneuvers again. Be sure you are positioning your weight on the footboard to the outside of the turn. Put your weight over the front wheels for better control.
- If your ATV begins to tip while turning:
   Lean more into the turn to regain balance. If necessary,
   gradually release the throttle and/or steer to the outside of the turn.
- If your ATV can not make it up a hill you are trying to climb: Turn the ATV around if you still have forward. If not, stop, dismount on the uphill side of the ATV and physically turn the ATV around. If the ATV starts to slip backwards. DO NOT USE THE REAR BRAKE the ATV may tip over on top of you. Dismount the ATV on the uphill side.
- If your ATV is crossing a sloping surface:
  Be sure to ride with your weight positioned towards the uphill side of the ATV to keep proper balance. If the ATV starts to tip, steer down the hill (if there are no obstacles in your way) to get balance again. If you discover that the ATV is going to tip over, dismount on the uphill side.

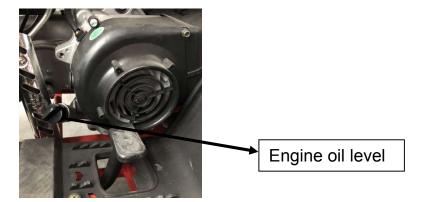
- If your ATV meets shallow water: Ride slowly and carefully through slow moving water, watching for obstacles. Be sure to let water drain from the ATV and CHECK YOUR BRAKES FOR PROPER OPERATION when you come out of the water. Do not continue to ride your ATV until you have regained ad-equate braking ability.
- If your ATV starts to slide sideways:
   Steer in the direction of the slide if you have the place. Applying the brakes or accelerating is not recommended until you have corrected the slide.

#### PERIODIC MAINTENANCE AND ADJUSTDENT

## **Engine oil**

## Engine oil level measurement

- 1.Place the ATV on a level surface.
- 2. Warm up the engine for several minutes and stop it.
- 3.Remove the dipstick and wipe it off with a clean rag. Insert the dipstick in the filler hole without screwing it in.
- 4. Remove the dipstick and check the oil level.
- 5. The oil level should be between the maximum and minimum marks. If the level is low, add oil to raise it to the proper level.



## **Engine oil replacement**

- 1.Place the ATV on a level position.
- 2. Warm up the engine for several minutes and stop it.
- 3. Place an container under the engine.
- 4. Remove the dipstick and drain bolt to drain the oil.
- 5. Check the O-ring and replace if damaged.
- 6.Install the drain bolt and tighten to specification.
- 7. Fill the engine with oil and equip the dipstick.
- 8. Warm up the engine for several minutes at idle speed. Inspect oil leakage while warming up.

## Spark plug inspection

The spark plug is an important engine component and is easy to check. The condition of the spark plug can indicate the condition of the engine.

For example, a very white center electrode porcelain color could indicate an intake air leak or carburetion problem for that cylinder. Do not attempt to diagnose such problems yourself.

Instead, take the ATV to your dealer. You should regularly remove and inspect the spark plug because heat and deposits will cause the spark plug to slowly break down and erode. If electrode erosion becomes excessive, you should replace the spark plug with one of the proper type.

Before installing the spark plug, measure the electrode gap with a feeler gauge and adjust to specification.

When equipping the spark plug, always clean the gasket surface and use a new gasket. Wipe off any grime from the threads and tighten to the specified torque.



#### **Brakes**

This ATV has front hydraulic with parking brake and rear hydraulic disc. Brakes are extremely important items of personal safety and should be properly adjusted. Remember to check the brake system periodically and these checks should be conducted by qualified dealer or licensed technicians.

## 1. Front brake



#### 2. Rear brake



Brake fluid

The brake fluid crock must be kept between the upper the lower mark. The brake friction must be checked to see if it is damaged once the limit depth, then there may be leakage in the brake oil crock. You should turn to the after-sale service station for inquiry.

## Warning

Brake fluid may cause irritation. Avoid contact with skin of any part of body or eyes. In case of contact, flush thoroughly with water and call a doctor if any part of those mentioned area were exposed.

#### **Brake friction**

During the maintain period, the abrasion can be exiled by eye.

Once either friction pads is worn the limit depth, replace both pads in time. The tube and lining fitting must be exiled to ensure that the brake oil never be leakage.

## **Brake Lining**

The main points for checking brake lining are to see whether the lining pad is worn out of the limitation range. Replace the brake lining if the lining wear is beyond the brake wear limit mark.

#### **Drive Chain**

The service life of the drive chain is dependant upon proper lubrication and adjustment.

Poor maintenance can cause premature wear or damage to the drive chain and sprockets.

The drive chain should be checked and lubricated as part of the Pre-ride inspection.

## Inspection:

- 1.Stall the engine, place the ATV on level ground, and shift the transmission into neutral.
- 2. Check slack in the lower drive chain run midway between the sprockets.
- 3. Forward the ATV and then stop. Check the drive chain slack. Repeat this prove due several times. Drive chain slack should remain constant. If the chain is slack only in certain sections, some links are kinked or binding. Binding or kinking can frequently be eliminated by lubrication.
- 4.Inspect the sprocket teeth for possible wear damage. Replace if necessary.
- 5.If the drive chain or sprockets are excessively worn or damaged, they should be replaced. Never use a new chain with

worn sprockets; rapid chain wear will result.

## Adjustment:

Drive chain slack should be checked and adjusted, if necessary, every 1000km. When operated at sustained high speeds or under conditions of frequent rapid acceleration, the chain may require more frequent adjustment.

If the drive chain requires adjustment, the procedure is as follows:

- 1.Place the ATV on level with the transmission in neutral and the ignition switch off.
- 2.Loosen both the adjuster nut
- 3. Turn down the eccentric use the professional adjust spanner, and then reinstall the adjuster nut.
- 4. Check the drive chain slack. Chain slack should be 10~20mm.

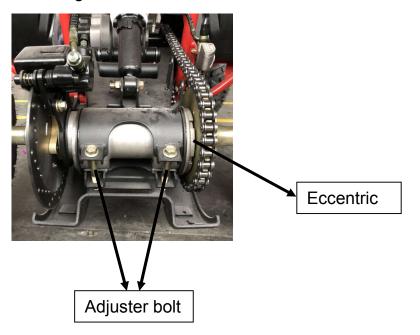
## Removal and cleaning:

When the drive chain becomes dirty, it should be removed and cleaned prior to lubrication.

- 1. With the engine off, clean the drive chain in high flash-point solvent and allow it to dry. Inspect the drive chain for possible wear or damage. Replace any chain that has damaged rollers, loose fitting links, or appears unserviceable.
- 2. Inspect the sprocket teeth for possible wear and damage.
  Replace if necessary. Never use a new drive chain on badly worn sprockets. Both chain and sprockets must be good condition, or the new replacement chain or sprocket will wear rapidly.

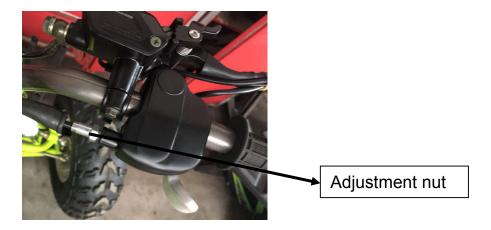
3. Lubricate the drive chain.

Use engine oil or a commercially prepared drive chain lubricant in preference to motor oil or other lubricants. Saturate each chain link joint so that the lubricant penetrates between the link plates, pins, bushings, and rollers.



## Throttle adjustment

You can change tightness of the throttle with adjustment nut on throttle cable.



## **Check-up & Cleaning of Air Filter**

Take out the air filter and check if it is contaminated.

## Cleaning:

Wash the filter in clean washing oil and wipe it dry with dry cloth. Soak it in clean machine oil, squeeze it dry and fit it back to position.

Recommended oil: 15W/40QE Caution:

The air filter element for use must be intact or the engine will suck in dust and dirt, resulting in a shorter service life of the engine.

Water should be prevented from entering into the filter in washing the vehicle.

The filter shall never be cleaned with gasoline or any other agent of a low ignition point.



## **Battery**

Inspect the level of the battery fluid and see if the terminals are tight. Add distilled water if the fluid level is low.

Replenishing the battery fluid

A poorly maintained battery will corrode and discharge quickly. The battery fluid should be checked at least once a month.

- 1. The level should be between the upper and lower lever marks. Use only distilled water if refilling is necessary.
- 2. When added water 8 hours later, Disconnect the negative (-) lead.
- 3. Disconnect the positive (+) lead and remove the battery.
- 4. When the machine is not to be used for a month or longer, remove the battery and put it in a cool, dark place, Thoroughly recharge the battery before reusing.
- 5. If the battery is to be stored for a longer period than the above, check the specific gravity at least once a month and recharge the battery when it is too low.
- 6. Always make sure the connections are right when putting the battery back in the machine. Make sure the breather hose is properly connected and is not damaged or obstructed.

## **Trouble shooting**

If the engine can't be started, please perform the following checks to find out the reasons.

Fuel system test

- 1. Whether there are sufficient fuel in the fuel tank and the two way fuel cock is indicating on the "ON" position.
- 2. Pull the fuel tube off from the carburetor to see if the fuel flows from the fuel cock into the carburetor freely.
- 3. Push the fuel tube back to the carburetor, leave the fuel cock to "ON" position and release the drain screw to see whether the fuel flows out from the fuel pipe.

## Warning

Do not leave the fuel run off, always keep it in a vessel. Do not splash gasoline on warm engine and/or air exhausting pipe, keep away from open flame and never near any fire or heat source while performing this test.

## Ignition system test

- 1. Screw off spark plug and then connect it back to the spark plug cap.
- 2. Turn ignition switch to the "ON" position, align the spark plug to the engine in a 3-5mm gap and start the engine. If the ignition system works normally, there would be a blue flare which flashed across the spark plug gap; if there is no spark, then the ignition system will need to be repaired. Contact your dealer.

Don't keep the spark plug aligned too close to the spark plug seat or the opening aperture on the cylinder head, because the fuel vapor in the cylinder may ignite and cause a fire.

## **Engine troubleshooting**

- 1. Check the fuel supplying system of the fuel tank.
- 2. Check the ignition timing mechanism of the ignition system for the proper set timing.
- 3. Check the engine idle speed.

#### **Fuse replacement**

- 1. The fuse case is placed under the seat.
- 2. If the fuse is blown, turn off the ignition switch and equip a new fuse of the specified amperage. Then turn on the switches. If the fuse immediately blows again, consult your dealer.

#### **CLEANING AND STORAGE**

## Cleaning

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

- 1. Before cleaning the machine.
- a. Block off the end of the exhaust pipe to prevent water entry. A plastic bag and strong rubber band may be used.
- b. Assure the spark plug and all filler caps are correctly installed.
- 2. If the engine case is extremely greasy, apply degreaser with a paintbrush. Do not apply degreaser to the wheel axles.
- 3. Rinse the dirt and degreaser off with a garden hose. Use only sufficient pressure to do the job.
- 4. Once the majority of the dirt has been hosed off, wash all surfaces with warm water and mild, detergent-type soap. An old tooth-brush or brush is handy for hard-to-get-at places.
- 5. Rinse the machine off immediately with clean water and dry all

- surfaces with a chamois, clean towel or cloth.
- 6. Clean the seat with a vinyl upholstery cleaner to keep the cover pliable and glossy.
- 7. Automotive type wax may be applied to all pained and chrome plated surfaces. Avoid combination cleaner-waxes. Many contain abrasives which may mar the paint or protective finish. When finished, start the engine and let it idle for several minutes.

## **Storage**

Long term storage (60 days or more) of your machine will request some protective procedures to guard against deterioration. After completely cleaning the machine, prepare for storage as follows:

- 1. Fill the fuel tank with fresh fuel
- 2. Remove the spark plug, pour about one tablespoon of SAE 10W30 or 20W40 motor oil in the spark plug hole and reinstall the spark plug. Ground the spark plug wire and turn the engine over several times to coat the cylinder wall with oil.
- 3. Lubricate all control cables.
- 4. Block up the frame to raise all wheels off the ground.
- 5. Tie a plastic bag over the exhaust pipe outlet to prevent moisture from entering.
- 6. If storing in a damp or salty atmosphere, coat all exposed metal surfaces with a light film of oil. Do not apply oil to any rubber parts or the seat cover.

7. Remove the battery and charge it. Store it in a dry place and recharge it once a month. Do not store the battery in an extremely warm or cold place (less than  $0^{\circ}\mathbb{C}(30^{\circ}\ \text{F})$ or more than  $30^{\circ}\mathbb{C}(90^{\circ}\ \text{F})$ .

## **Resumption of service**

- ①Remove the covering and clean the vehicle. Change the lubricating oil if the vehicle has been off service for over 4 months.
- 2 Charge the battery and remount it.
- ③Drain off the antirust solution from the fuel tank, followed by filling fuel therein to the required level.
- 4 Prior to driving, test the vehicle at low speed in a safe place. Maintenance Routine Diagram

#### **Maintenance Procedures:**

I = Inspect (clean, adjust or replace ifneeded)

C = Clean

A = Adjust

L = Lubricate

R = Replace

T= Tighten

Maintenance period	Odometer (km)						
Items	750	3000	6000	9000	12000	15000	Everyday check before riding
**Re-seating Valve		I	I	I	I	I	
**Spark Plug		I	R	I	R	I	
**Fuel System		I	I	I	I	ı	
*Engine Oil	R	R	R	R	R	R	I
*Valve Gap		Α	Α	Α	Α	Α	
*Idle Speed		Α	А	А	А	Α	
*Engine Bolt		I	I	I	I	I	

			_			
*Gear Oil	R	R	R	R	R	
*Oil Filter	С	С	С	С	С	
*Fuel Filter	R	R	R	R	R	
*Air Cleaner	С	R	С	R	С	
*Drive Chain	I\T	I\Τ	I\T	I\T	I\T	
*Cooling System	I	I	I	I	I	
Engine Mount	I	I	I	I	I	
Fuel Line	I	I	I	I	I	
Throttle Operation	I	I	I	I	I	
Brake Shoes/Pad Wear	I	I	I	I	I	
Brake System	I	I	I	I	I	
Brake Light Switch	I	I	I	I	I	
Brake Liquid	I	I	I	I	I	
Clutch	I	I	I	I	I	
Suspension	1	I	I	I	I	
Nuts, Bolts, Fasteners	I	I	I	I	I	
Wheel/Tire	I	I	I	I	l	
Steering System	I	I	I	I	I	

<sup>&</sup>quot;\* " means: This item of maintenance should be carried out at a service center. It may be also done by the user himself with reference to this manual provided he has special tools, spare parts and is capable of this job.

<sup>&</sup>quot;\* \*"means: This item can only be carried out by the serviceman at service center in order to ensure safety.

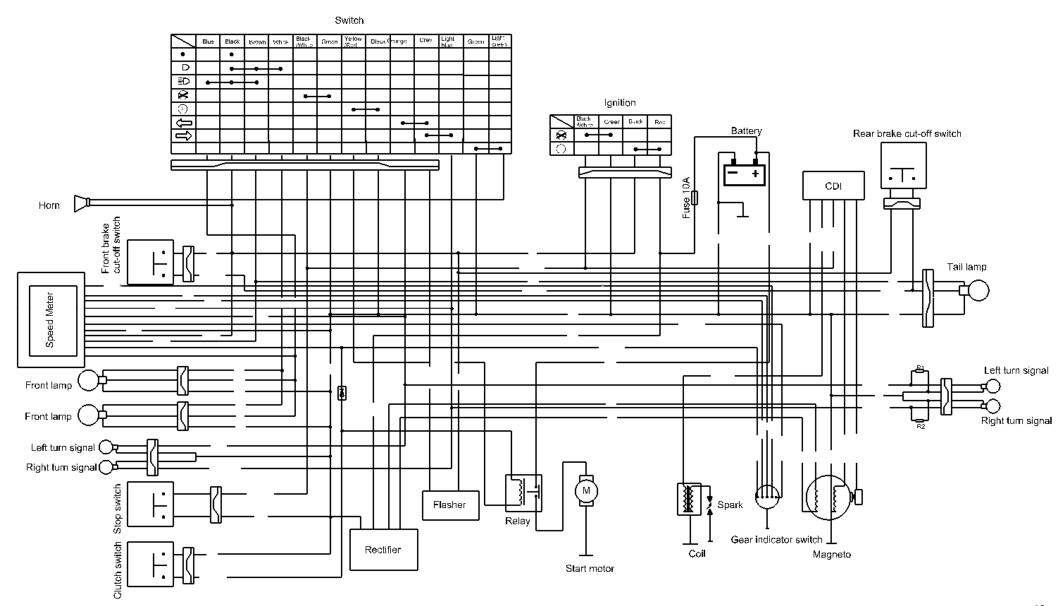
# Specification

Overall Size( L*W*H)	1670mm x 1020mm x 1100 mm		
Wheelbase	1110mm		
Wheel track	Fr:815mm Rear:790mm		
Ground clearance	135mm		
Seat height	760mm		
N.W. / G.W.	160kg /180kg		
Max. load	165kg		
Front /Rear brake	Fr/rear: Disk		
Front tire	21x7-8"		
Rear tire	20x9.5-8"		
Fuel tank	6L		
MAX. speed	60km/h		
MAX. grade	10°		
Min. turning radius	3000mm		
Battery type	12v-9A.h		
Transmission	Chain		
Packing size	1465mm×870mm×860mm		

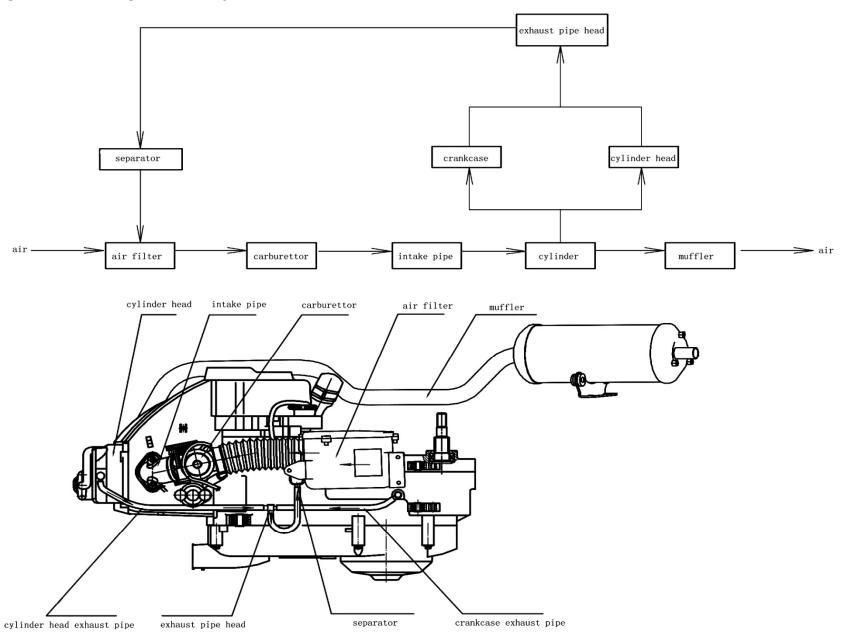
# Engine

Engine type	150cc, Single, four-stroke, air cool, GY6	ir cool,GY6 180cc,Single, four-stroke, air cool,GY6		
	1P57QMJ	1P62QML		
Cylinder capacity	149.6ml	174.4ml		
Compression ratio	9.2: 1	10:1		
Max .Torque	8.5N.m/6000rpm	10N.m/6000rpm		
Max . power	6.2KW/7500rpm	7.3KW/7500rpm		
Idle speed	1700±100 r/min	1700±100 r/min		
Ignition type	Electronic ignition (CDI)	Electronic ignition (CDI)		
transmission	CVT with reverse	CVT with reverse		
Starter system	Electric	Electric		
Carburetor	PD24J-8	PD24J-8		

# Diagram



## Schematic diagram of waste gas recovery:



Explansiion: When the engine is working, the exhaust of engine and crankcase goes into the air filter by exhaust pipe. Part of engine oil is been filtered to oil collecting pipe. Rest air will go into cylinder with fresh air and burn again.

## Warranty

## Apollo Motorsports USA, Inc. - EMISSION CONTROL SYSTEM WARRANTY

## YOUR WARRANTY RIGHTS AND OBLIGATIONS

The emission control system warranty period for this vehicle begins on the date the vehicle is delivered to the ultimate purchaser and each subsequent purchaser other than an authorized dealer, or the date it is first used as a demonstrator, lease, or company vehicle, whichever comes first and continues for <u>5,000 km or 30 months</u>, whichever comes first, provided there has been no abuse, neglect or improper maintenance of your vehicle. Where a warrantable condition exists, the dealer will repair your vehicle at no cost to you, including diagnosis, parts and labor. If an emission-related part on your vehicle is defective, the part will be repaired or replaced by the dealer. This is your emission control defects warranty.

#### OWNER'S WARRANTY RESPONSIBILITIES

As the vehicle owner, you are responsible for the performance of the required maintenance. You should maintain a record of all maintenance performed on your vehicle and retain all receipts covering maintenance on your vehicle. You may not be denied a warranty claim solely because of your failure to ensure the performance of all scheduled maintenance or lack of maintenance records or receipts. You are responsible for presenting your vehicle to an authorized dealer as soon as a problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days.

As the vehicle owner, you should be aware that you may be denied your warranty coverage if your vehicle or a part has failed due to abuse, neglect, improper maintenance, or unapproved modifications.

#### WARRANTY COVERAGE

The Importer warrants to the ultimate purchaser and each subsequent purchaser that the new 2019 vehicle, including all parts of its emission-control system, meets two conditions:

■ It is designed, built, and equipped so as it conforms at the time of sale to the ultimate purchaser with the

applicable requirements of the United States Environmental Protection Agency; and

■ It is free from defects in material and workmanship that may keep it from meeting these requirements.

Your emission control system warranty covers components whose failure would increase an engine's emission, including electronic controls, fuel injection system, carburetor, the ignition system, catalytic converter, or any other system utilized in this vehicle to control emission if it is originally equipped. Also included may be hoses, connectors and other emission-related assemblies. Replacing or repairing other components (including parts, labor, and other costs) not covered by this emission control system warranty or the standard warranty is theresponsibility of the owner.

Coverage of repairs under this warranty applies only when repairs are completed at an authorized dealer orrepair facility. The importer will not cover repairs performed outside of an authorized dealer or repair facility, except in an emergency situation. The use of replacement parts not equivalent to the original parts may impairthe effectiveness of your vehicle's emission control system. If such a replacement part is used and an authorized dealer determines it is defective or causes a failure of a warranted parts, your claim for repair to bring yourvehicle into compliance with applicable standards may be denied.

If an emergency situation exists when a warranted part or a dealer is not reasonably available to the owner, repairs may be performed at any available service establishment, or by the owner, using any replacement parts. The importer shall reimburse the owner for the expenses, diagnostic charges, not to exceed the importer's suggested retail price for all warranted parts replaced and labor charges based on the importer's recommend time allowance for the warranty repair and the geographically appropriate hourly labor rate. The owner mayreasonably be required to keep receipts and failed parts in order to receive compensation.

This Emission Control System Warranty is in addition to the standard Limited Warranty.

## **LIST OF EMISSION RELATED PARTS**

Part Name	Part Name	Part Manufacturer
Catalytic Converter	Φ <b>42</b> ×100(90)/200	Taizhou OXIN Environment Catalytic Converter Co., Ltd.
Fuel Tank	Y-36-01050100	Yongkang Junhao Electronic Instrument Factory.
Fuel Tank Cap	Y-36-01050100	Yongkang Junhao Electronic Instrument Factory.
Carburetor Assembly	PD24J-8	Fujian Jingke Technology Co., Ltd.
CDI	Y-36-08210000	Chongqing Jinlan Electronic Technology Co. Ltd.
Coil	Y-36-08220000	Chongqing Jinlan Electronic Technology Co. Ltd.
Spark Plug	NST/A7RTC	Ningbo Newstar Spark Plug Co., Ltd.
Air Cleaner	Y-36-01030100	Yongkang West City Juru Air Filter Factory.
Crankcase Breather Separator	Y-36-01030200	Yongkang West City Juru Air Filter Factory.

## **EXCLUSIONS AND LIMITATIONS**

This warranty does not cover the following:

- Failures or malfunctions of the emission control systems caused by abuse, alteration, accident, misuse, the use of leaded gasoline.
- Replacement of expendable maintenance items unless they are original equipment defective in material or workmanship under normal use, and the first required replacement interval for the item has not been reached. Expendable maintenance items include but not limited to spark plugs, filters, coolant, lubricants,gaskets, hoses and belts.
- Replacement of parts and other service and adjustments for required maintenance.
- Any vehicle equipped with an odometer or hour meter where the reading is altered so that actual mileagecannot be readily determined.

- Repairs or replacement as a result of:
  - \* Accident
  - \* Misuse
  - \* Use of replacement parts or accessories not conforming to the original specifications which adversely affect performance
- Physical damage, corrosion, or defects caused by fire, explosions or similar causes beyond the control of the importer
- Failures not caused by a defect in material or workmanship.

Use of the vehicle in any type of competitive racing or related events immediately and completely voids this and all other warranties.

#### CONTACT

No dealer is authorized to modify this Emission-Related Warranty. If you have any questions regarding your warranty rights and responsibilities, you should contact Apollo Motorsports USA, Inc. at 818-588-8435 (or you can write to vahanh@gmail.com).