## Introduction

Congratulations on your purchase of PGO ATV. It represents the result of many years of PGO experience in the production of tine machines. You can now appreciate our craftsmanship and reliability of the master piece. This manual will provide you with a good basic understanding of the features and operation of this vehicle. This manual includes important safety information. Failure to follow the warnings contained in this manual can result in serious injury or death. It provides information about special techniques and skills necessary to ride your vehicle.

## There are 5 models included in XL-RIDER series, they are:

- XL-50, XL-90, XL-110 (2T vehicle), and
- XL-150, XL-200 (4T vehicle).

Please verify your X-RIDER model very well in order to read the related instru-

●NEVER ALLOW A CHILD UNDER AGE 6 TO RIDE XL-50 (50CC), AND UNDER 12 TO RIDE XL-90 (82CC), AND UNDER 16 TO RIDE MORE THAN 90 CC (XL-110, XL-150 & XL-200).

Manufactured by:

MOTIVE POWER INDUSTRY CO., LTD

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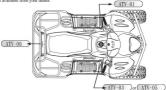
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### 1 LOCATION OF THE WARNING AND SPECIFICATION LARFLS

Read and understand all of the labels on your machine. They contain important information for safety and proper operation.

Never remove any labels from your machine.

If a label becomes difficult to read or comes off,
a replacement lable is available from your dealer.







without proper training or matruction iii speeds foe first for your skills or the conditions. use proper riding techniques to proid rehicle overtures.

without proper training or instruction

avoid paved surfaces pavement may seriously affect LOCATE AND READ OWNERS MANUAL FOLLOW ALL INSTRUCTIONS AND WARNINGS. F CHINETE MINUS. IS MISSING, CONTACT A DEALER NEAREN FOR A REPLACEMENT.

PROFESSION ALWAYS WEAR A HELMET and other

· Do not operate the vehicle after consuming · Guerline in Suproutio, Start off engine. • Real reports manual specially before risting

Emp owner's manual with reticle. • Dainy the specified in corner's manual. Overlanding our adversely affect vehicle On-road



## A WARNING

of 16 Increases your NEVER operate this ATV if you are

### (AVT-05) A WARNING



Operating this ATV if NEVER operate this ATV if you are

### AVT-06



## 2. NOTES FOR SAFETY

- ORead this Owner's Manual carefully before riding.
- This vehicle is designed for the riders age 6 and older for 50cc displacement, 12 and older for 90c.c.,16 and older for more than 110cc.
- Both the parent and their children must fully understand everything in this manual before riding.
- This vehicle is for OPERATOR-ONLY. Never carry passenger on an ATV.
- Always wear a helmet, face shield, boots, gloves and protective clothing when riding.
- •Beginners should receive training from a certified instructor.
- The practice location must be a level, free of obstacles, off-road area.
- •For vehicles without on-road homologation, It is illegal to ride the vehicle on public roads or highways.

If it is necessary to cross a public road, dismount from the vehicle and push it across.

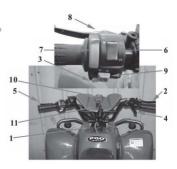
- ODon't allow your child to ride without supervision.
- Don't take alcohol or drugs when riding. They can affect your judgement and slow down reaction time.
- Maintain a safe distance between your vehicle and other vehicle.
- •Never ride this vehicle unless it has been properly adjusted and maintained.
- ONever run the engine in close areas. The exhaust gas contains poisonous carbon monoxide.
- •Don't touch any part of the engine, muffler and exhaust system during and following operation.
- Always check for obstacles before operating in a new area.
- •Never attempt to operate over large obstacles, such as large rocks or fallen trees. Always follow proper procedures when operating over obstacles as described in this manual.

- Always be careful when skidding or sliding. Learn to safely control skidding or sliding by practicing at low speeds and on level, smooth terrain. On extremely slippery surfaces such as ice, go slowly and be very cautious in order to reduce the chance of skidding or sliding out of control.
- Never operate an ATV in fast flowing water. Remember that wet brakes may have reduced stopping ability. Test your brakes after leaving water. If necessary, apply them several times to let friction dry out the linings.
- Always use the size and type of tires specified in this manual. Always maintain proper tire pressure as
  described in this manual.
- Never modify an ATV through improper installation or use of accessories.
- When transporting the machine in another vehicle, be sure it is kept upright and that the fuel cock is in the "OFF" position. Otherwise, fuel may leak out of the carburetor or fuel tank.

## 3. DESCRIPTION

### PARTS LOCATIONS

- Fuel tank
   Front brak
   Horn
- 2. Front brake lever / parking brake
- 4. Throttle lever
- 1. Throttle lever
- 5. Rear brake lever
- 6. Engine stop / parking switch
- 7. Headlamp switch
- 8. Starter 9.Direction Lamp Switch
- 10.Speedometer
- 11.Main switch



### SERIAL NUMBER

Please record the frame and engine serial number for future reference

The frame serial number (1) is stamped on the front of the frame.(XL-50/XL-90/XL-110), or on the right of the frame(XL-150-XL-200).



The engine serial number (2) is stamped on the rear of the left crankcase.





### PARTS FUNCTION

a. Engine stop switch Optional for 2T model

The engine stop switch is on the left handlebar. When the switch is in the "OFF" position, the engine will not operate. This switch can be used as a safety or emergency switch. Be sure to push the switch to the "ON" position, the engine will operate.



b. Parking switch
(optional for XL-150 & XL-200)
The parking switch is on the left handlebar.
When the switch is in the "ON" position, all the signal lamps will twinkle for parking warning.





### c. Throttle Lever

The throttle lever is beside the right handlebar grip to be activated by the right hand thumb. To accelerate the vehicle, simply press the lever forward to open the throttle. To decelerate, release the lever spring tension will close the throttle automatically.



### d. Front and Parking Brake

Grasp right hand brake lever on right handlebar for front braking.

When parking, squeeze the right hand brake lever to apply the front brake to the front wheels.

And at this moment press the parking brake button on the right handlebar brake set. Make sure that the brake lever is locked for more safety. Only squeeze the right hand brake lever once again the parking brake will be released in free motion.

XL-50/XL-110



XL-150/XL-200 & KICK BRAKE MODEL



### e. Hydraulic Disc Rear Brake

The hydraulic disc rear brake is operated with the lever on the left handlebar. When braking, grasp this lever which applies the brake to the rear wheels. Check the fluid level in the reservoir located on the left handlehar, make sure that the brake fluid is above the lower level. Always keep the disc plate clean, refrain from grease.







XL-150/XL-200 KICK BRAKE MODEL



## f. Safety Switch:

There is a rider safety device with ghis vehicle. The safety switch is located at the rear of the body under the seat. The cap of the switch tied to a rope is normally connected to the safety switch when riding the vehicle.

This rope should never be attached to the rider. The supervisors should hold the safety switch behind the vehicle and pull the rope to activate the safety switch if necessary. The engine will stop automatically when the switch cap is off from the switch.

### g. Head Lamp Switch

Turn the switch to "ON" when needed. Don't use the lights when engine is turned off. Otherwise, the battery may discharge to the point that starter motor will not operaterly, properly.



Head Lamp



## h. Direction Lamp Switch





### i. Rear rack Load Capacity:13.6kgs Avoid to have people on the rear rack.



## i. Seat Dismantled: To dismantle the seat follows the below graph.



pendix (

Speedometer
1. Symbol description

Dspeed indication

2 high beam indicator 3 signal lamp indicator

Treverse gear indicator: when shifting to R

when it lights on

©RESET button

8 display area 9 oil warning lamp (Only available for 2T model)

2. Setting: Press "MODE + RESET" 2 sec., then can get into the setting procedure.

①Unit: km/h or mile/h, switched by MODE, and RESET to confirm.
②Wheel circumstance: from 1 to 3999 mm, 4 digitals individually set by RESET to

increase one by one, and MODE to next digital. Finally press MODE 2 sec. to escape setting.

For example, if your rear wheel is "21\*9", (or 19\*8), and the wheel circumstance

shall be set as 1,800.(or 1,600)

3 If without pressing any button during 20 sec., it will escape to main menu automatically.

**4** Button operation

Situation Button	Setting	Main menu
MODE		↓ : switch display
RESET	it digital + 1     ▼2: no function	↓ : no function ▼2: Reset RT, MAX, TRIP
MODE + RESET		▼2: setting parameter

 ■ □ ↓ □ means press button one time.

⑤Display description: switched by MODE in main menu.

●Sequence: SPD/TRIP ? MAX/ODO ? SPD/RT ? SPD/TRIP

SPD: real time speed

●TRIP: trip distance from last RESET, press RESET to zero again.

•ODO: accumulated distance from this speedometer been used.

•MAX: maximum speed, press RESET to zero again.

●RT: operating time from last RESET, press RESET to zero again.

### FUEL

### a. Fuel Valve

The three way fuel valve is on the right side of the vehicle. With the fuel valve at "OFF", gasoline cannot flow into the carburetor.

With the fuel valve at "ON", fuel will flow out from the tank to the carburetor.

When the fuel valve at "RES", fuel will flow from the reserve supply to the engine. At this position, refill the tank as soon as possible.







### b Fuel Tank

Fuel tank capacity is 5.2 liter including 0.8 liter in the reserve supply. Automotive gasoline with octane number of 92 or higher may be used. After refueling, be sure to tighten the tank

cap firmly.

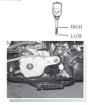
Do not refuel right after the engine has been running and is still very hot.



### ENGINE OIL (4T VEHICLE)

4 stroke engine oil shall be replaced periodically.

Make sure the oil is between the specified level, Fill it as necessary.



### ENGINE OIL (2T Vehicle)

Two-stroke engine oil must be added to the oil tank periodically. Check oil indicator every time before operating this vhicle.

If oil supply to engine is not enough, this engine will be out of order, it can not work again. The oil tank is installed under the seat. You can pull the clamp under the rear side of the seat to take off the seat. Then you can refill the oil into the tank.

### Oil Indicator (2T Vehicle)

- The oil indicator shows up about 2 seconds after you switch on the key for self testing, and then shows off automatically.
- When the red light shows up again after the self-testing, refill the engine oil as soon as possible.





### TIRES

Check tire pressure frequently with the air pressure gauge.

Tires should be inflated to the recommended pressure.

- Off road : FRONT : 0.25 ~ 0.30kgf/cm<sup>2</sup> REAR : 0.25 ~ 0.30kgf/cm<sup>2</sup>
- On road : FRONT : 0.40 ~ 0.60kgf/cm<sup>2</sup>
   REAR : 0.40 ~ 0.60kgf/cm<sup>2</sup>
- The pressure should be checked when the tires are "cold"
- before running the vehicle.

  Tire wear limit

When the tire groove decreases to 3mm (0.1") due to wear, replace the tire.



#### OPERATION

NOTTONIZATION

Inspect your vehicle every day before you run it. It only takes a few minutes to check and might save your

- Charle oil hand in oil tank. The oil hand should be between the maximum and minimum marks
- O Check fuel level in fuel tank. Fuel expands when heated up. Do not overfill fuel tank. 9 Check brake operation. If any problem cannot be corrected by the adjustment, have the ATV inspected
- O Check tires condition and pressure as recommended.
- O Check driving chain condition and slack Of Check throttle for smooth opening and closing. It must spring back to idle position when released.
- O Check engine stop switch for good function.
- O Check steering for proper wheels turning O Check nuts, holts and other fastners.







### STATRING PROCEDURE

- Parking the vehicle on a level surface and lock the parking brake.
- Insert the ignition key into its switch and turn it to the "ON" position.
   There are two levels in this switch. On the first level,

you can start engine as usual, but it will not apply to head lamp system. On the second level, it can start the engine as well as applying to the head lamp system, you then can turn on the lights on the light switch.

- 3 Turn the fuel valve to "ON"
- Turn the fuel valve to "ON".
   Move the engine stop switch to "ON".
- Push the throttle lever slightly.
   Push the start button on the left handlebar

### RUN-IN

During the first two weeks of riding, run your new vehicle tenderly. Don't run as fast as to approach maximum rpm.

This run-in process will greatly enhance the long term power and the life of the engine.



### RIDING

Begin by finding a safe area free of obstacles with a level surface. Always keep your feet on the footrest during operation.

Under normal riding conditions it is not necessary to touch the ground for balance.

## Then: 1. Start the engine,

- After the engine has been warmed up, release the parking brake. The vehicle is ready for riding.
- Increase engine speed by opening the throttle gradually.



### PARKING

- 1. Parking at a level surface,
- After stopping the vehicle, turn the fuel valve to OFF position,
- Lock the parking brake at the right handlebar.



## TURNING

It is essential that this skill shall be learned at first at low speed. The rider must learn to move his weight and control the throttle to allow the rear tires to get the turn.

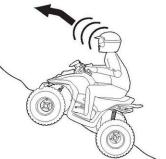
When turning, the wheel on the outside of the turn must travel a wider radius and thus a greater distance than the inside wheel. As the rear axle does not permit a differing rate of wheel rotation, it is not enough to merely steer this vehicle into a turn. To turn steer in the direction of the turn, leaning your body to the inside of the turn, while supporting your weight on the outer footrest. Use the throttle to maintain power througout the turn. Incorrect turning may cause the front wheels to slide straight ahead. If this should occur, close the throttle and stop. Avoid braking or accelerating until you have regained directional control. Be careful to avoid skids while traveling on slippery terrain.

## Climbing uphill

Practice riding at first on gentle slopes. Try more difficult climbs only after you have developed your skill. Avoid excessive steep hills or slopes with slippery or loose surface in rough terrain. Keep both feet on the footrests. When climbing a hill, shift your weight forward, proceed at a steady rate of speed and throttle opening. If you are unable to continue up the hill, dismount the vehicle on the uphill side. Physically turn the vehicle around and then descend the hill.

## Crossing through shallow water.

X-Rider ATV can be used to cross slow moving, shallow water of up to a maximum of 35 cm (13.8") in depth. Entering the water where there is no sharp drop off, rocks or other obstacles. Drive slowy and carefull. Remember that wet brakes may have reduced stopping ability. Test your brakes after leaving water until you have regained proper braking ability.



## 5. MAINTENANCE

## MAINTENANCE SCHEDULE

The maintenance intervals in the following table are based upon average riding and conditions. Riding in unusual dusty areas require more frequent servicing.

Item	INITIAL SERVICE (First week)	PERIODICALLY SERVICE (Every 30 operating days)	Every year	Remarks
Fuel Pipe			I	
Throttle Operation	I	I		
Air Cleaner		C/R		R for 4T
Spark Plug		I		
Carburetor Adjustment	I	I		
Engine oil	R	R		4T Vehicle
2nd oil filter	1,5,4	V-500	R	4T Vehicle
Gear oil	R	I	R	
Drive Chain	I,L	I,L	10000	
Throttle Cable	I	Í	I	
Brake Shoe Wear			I	
Brake System	I	I	-	
Brake fluid	3000	Ī		R/per 2 year
Nut, Bolt, Fastener	I	Ī		
Wheel	I	I		
Steering System		****	I	
Suspension System	I	I	ì	

Note [1: Inspect and Clean, Adjust, Lubricate or Replace, if necessary.

C: Clean L: Lubricae R: Replace

## SPARK PLUG

Standard spark plug: NGK BPR7HS or BP7HS (2T Vehicle) ;NGK C7HSA, or CR7HSA (xl-150,xl-125) ; CR7E(xl-200)

- 1. Disconnect the spark plug cap.
- 2. Clean up dirt from around the spark plug base.
- 3. Remove the spark plug.
- 4. Inspect the plug electrodes for wear. If the electrodes and insulator tip appear unusually fouled or burned,
  - change a new one. Discard the spark plug if there is apparent wear or if the insulator is cracked or chipped.
- The spark plug gap shall be kept in 0.6-0.7mm(0.24"-0.28"). If adjustment is necessary, bend the side electrode carefully.
- Install the spark plug, screw it in finger tight and then tighten with the plug wrench another 1/2 turn to compress the washer.



### AIR CLEANER

The air cleaner will accumulate dust and must be cleaned periodically. If riding in very dusty area, the filter must be cleaned more frequently. To clean the filter:

1. Remove the air cleaner cover.

2. Take out the filter from the air cleaner case. 3. Soak the element in clean oil until saturated, then

squeeze out the excess oil.(sponge element)





XL-200



### Carburetor and idle speed adjustment.

- 1. The carburetor is a vital part of the engine and requires very sophisticated adjustment. Most adjustments should be left to the dealer who has the professional knowledge and experience to do so.
- 2. Adjust the idle speed often to keep the ATV easy to start and stable idle speed as shown, recommended value is:
  - XL-50 / XL-110:1900 rpm
  - XL-150 / XL-200:1700 rpm





### BRAKE

Check the brake cable for kinks or signs of wear that could cause sticking or failure. Lubricate the brake cable with a available cable lubricant to prevent premature wear or corrosion.

Make sure that the brake arm, spring, rod and fasteners are in good condition.

Ask your dealer to replace the pads when they are almost in contact with the disc plate. Check that the brake fluid is above the lower level



### DRIVE CHAIN

The drive chain will wear with use and requires periodic adjustment. Measure the amount of chain slack or check the chain tension

stack of check the chain classion.

The amount of chain should be less than 10mm.

The chain slack can be adjusted by loosening the lock bolts and adjust the hexagon bolt. Don't forget to tighten back the lock bolts well. Sometimes, it needs to lubricate the chain. The SAE 140 gear oil is



### THROTTLE CABLE

Inspect throttle cable condition and operation.
Replace the cable if it has become worn or kinked.

Lubricate the cable with lubricant to prevent premature wear or corrosion. Adjustment can be made with the adjuster beside the throttle lever

Loosen the lock nut and turn the adjuster. The free play should be maintained at 5-10 mm (1.97"-3.94").



### BATTERY

When reinstalling the battery, be sure to connect the red cable to the positive(+) lead and the black cable to the negative(-) lead.

When the battery no longer can hold a charge, replace it. The battery should be replaced every three years as a normal service.

To replace a fuse be sure the main switch is off, and never use a bigger ampere fuse.



### DRIVE SHIFT (XL-150, XL-200/ OPTION for Others)

Switch the shift-bar in the right side to control drive forward or backward.

### KICK BRAKE (XL-150, XL-200/ OPTION for Others)

Use the kick brake in your right leg to brake the front and reat brake.





### SPARK ARRESTORS

When vehicle has been used for a period, or feel the exhaust is not smooth that is the time to clean amass carbon accumulated in the exhaust, and which clean methods are shown as below figures a. b : fig a, loosen the screw:

fig b. clean the spark arrestors

Before to clean amass carbon, it need to start the engine and try to accelerate it firsly. Then begin to clean the amass carbon and recover it to finish.







Fig:b

## 7. WARRANTY

## **OBLIGATION**

The obligation under this warranty is limited to repairing or replacing at our option, any part that is proven to be defective in material or factory workmanship under normal use for the applicable period stated below. Parts to be repaired or replaced under this warranty apply only during the warranty period.

## OBLIGATION OF VEHICLE OWNER

You must, at your own expense, have all the scheduled maintenance performed in accordance with the maintenance schedule in the Owner's Manual.

## WARRANTY PERIOD

This vehicle is covered by this warranty for a period of 6 months from the date of purchase.

### **EXCLUSIONS**

Failures other than those resulting from defects in material or workmanship are not covered by this warranty. This warranty does not cover replacement of expendable maintenance items made in connection with required maintenance services, such as spark plugs, filters and lubricants. This warranty does not extend to tires. The vehicle used for racing competition, commercial uses including rentals will void this warranty.

### SPECIFICATIONS

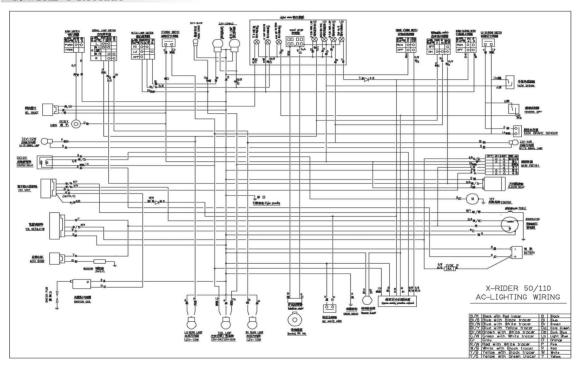
Model	XL-58/XL-90	XL-110
ENGINE		
Displacement	49 / 82 cc	196.2 oc
Cooling	Force air cooled	Ferce air cooled
Type	2 stroke horizoeral	2 stroke berigestal
	48 * 39.2 / 58 * 42	52.0 * 50.0
Lubrication	Separated lab	Separated lab
Feel canacity	5.2 liter	S.2 Decr
Transmission	CVTbelt	CVT lok
Drive train	Chain	Chain
Starting	Electric / Kids	Electric / Kirck
SUSPENSION		
Proof	Single A new	Ningle Away
Now	Swing gers	Swing arm
Travel	2.5 in / 6.3 cm	2.9 in / 17.3 cm
Rear brake	Hydraulic disc	Hydraulic disc
Front broke	Dram	Dram
DIMENSION		
Wheelberg	1900 mm	1909 mm
Overall dimension (L+W+H)	1720 * 990 * 1855 mm	1720 * 990 * 1955 mm
Dry weight	268 LRS/ 128kg	284 LBS/ 129kg
Seat height	790 mm	700 mm
Fit / mac ties	1917-8 / 1819.5-8	19*7-8 / 18*9.5-8
Signal indicator	12V-10W*4	123/-165/24
Head lamp	12V-18W	12%-18%
New Israe		

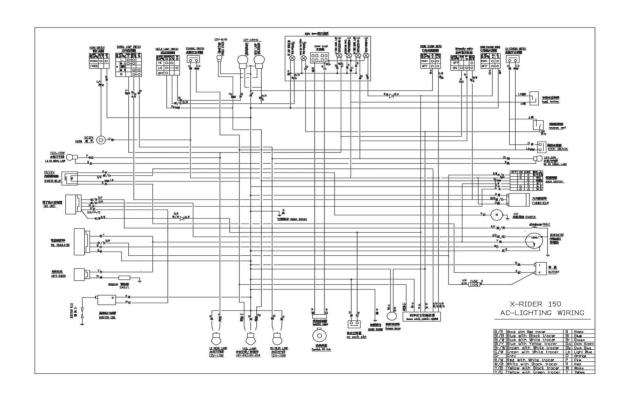


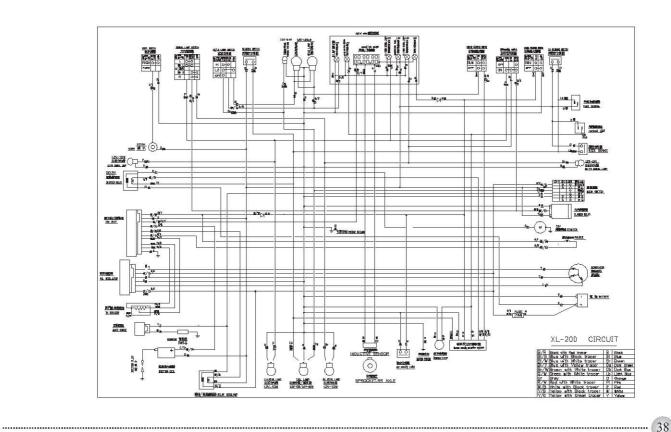
### 8. SPECIFICATIONS

Medel	XL-150	XL-200
Displacement	150.1 CC	199.1 CC
Cooling	Force air cooled it; oil cooled	Force sir cooled & oil coeled
Type	4 stroke horizontal	4 stroke horizontal
Bore* Stroke	57.5 * 57.8 mm	65.0 * 60.0 mm
Lubrication	Auto-separated lish	Auto-segurated leb
Engine oil	15%/40 / 900 oc replacement	15W40 / 1000 cc replacemen
Feel caracity	5.2 liter	5.2 liter
Transmission	CYTNE	CVT bok
Geroil	SAE(130 / 90 cc replacement	SAE130 / 110 cc replacement
Guar shift	Drive & reverse	Drive & resona
Reverse gear box	SAE130 / 190 or replacement	SAE130 / 180 cc replacement
Starting	Electric / Kids	Electric / Kiek
Prest.	Single A orm	Dard A gree
New	Swing arm	Swing arm
New / front broke	Dividenable disc / dram	Eindrauble disc / disc
Frt & rr brake	Kick	Kick
Abecitora	1150 mm	1150 mm
Overall dissession   L+W+H	1720 * 990 * 1855 mm	1720 * 990 * 1855 mm
Dry weight	361 LRS/ 161kg	414 LBS/188kg
Seet height	700 mm.	790 cars
Fet / rear tire	1917.8 / 2119.8	21*5.10 / 21*9.8
		21*3-10 / 21*10-8
Signal indicator	12V-10W*4	123/-105/*4
Head beny	12V-18W	12V-18W
Hear large	12V-21/5W	12V-21/5W

# 8. WIRE DIAGRAM







## APPENDIX A: ATV WHEEL COMP.

### PRMUTATION ASSEMBLY PROCEDURE (For 2T vehicle)

1.Disassemble part 1 and 3, then remove part 2 in left and part 4 in right.

2.Fit part 2 into the right side of rear axle, fit part 4 into the left side of rear axle, then tighten the part 1 and part 3.(Lock torque is 9.0-10.0 kg-m)

3.Cheek the tire pressure.

