

SAFE DRIVE

Rules for Safe Drive

Check must be conducted, before starting the engine, to prevent mishaps and damage to components.

Only the qualified person who has passed the drive examination with a drive license is permitted to drive the vehicle but not anybody else without a drive license.

Full preoccupation is required during drive, paying attention to the following points to avoid any possible hurt to you by other motorized vehicles:

Do not drive too close to other vehicles;

Never contend for lane.

Strictly observe the local traffic rules.

As driving at overspeed is the cause of many accidents, do not drive at a speed that the actual situation does not permit.

Particular care should be exercised at the level crossing of roads, entrance and exit of parking lot or on the automobile lane.

During drive, grasp the left handlebar by the left hand and the throttle twist grip by the right hand, with feet on the footrests.

1

Protective wear

1. **Protective wear such as helmet with protective mask, dustproof glasses and gloves should be worn during drive for the sake of personal safety.**

2. **Loose clothes are not suitable for motorcycle drive or ride as they may get caught on the operating lever, kick lever, footrest or wheel, resulting in danger.**

Modification of the vehicle

Caution:

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 vehic with unauthorized modification.

MAIN DATA

	150~250CC	Model	150~250CC
Overall length	1950mm	Cylinder bore × stroke	61x49.5/63x62.2
Overall width	720mm	Compression ratio	9.0:1
Overall height	1120mm	Output,max.	10kw/9500
Wheelbase	1301mm	Torque,max	11N.m/1500
Dead weight	115kg	Idling speed	1400 ± 100
Payload	150kg	Displacement of cylinder	145ml/194ml
Front wheel	70/100-19	Spark plug	D7/D8
Rear wheel	90/100-16	Spark plug gap	0.5 ~ 0.6mm
Speed, Max	> 130	Cap of air Valve	Intake valve:0.05mm
Brake distance	≤ 7m(30km/h)		Exhansevalve:0.08mm
Climbability	≥ 18°	Ground clearance	240mm

3

MAIN DATA

Capacity of gasoline tank	4.9L	Ignition means	CDI
Transmission ratio			
1st gear	3.083	2nd gear	2.062
3rd gear	1.45	4th gear	1.13
5th gear	0.960	Final reduction	3.09
6th gear			

4

III.PARTS & SUBASSEMBLIES

Hand clutch



Throttle twist grip

Fuel tank cover

Front Wheel



Rear Wheel

Front Shock-absorber

Rear fork



IV. OPERATION

Fuel Cock

① Fuel filling

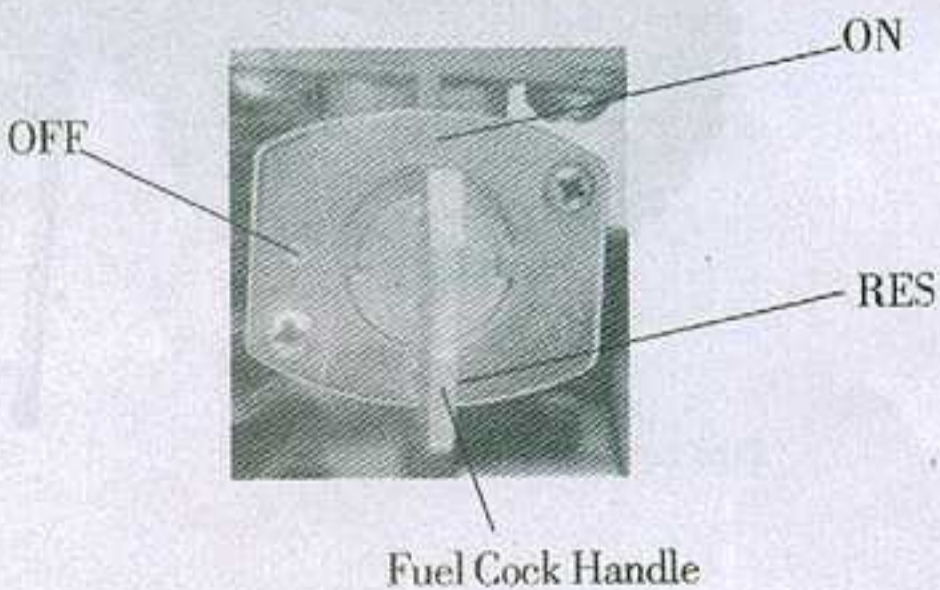
The capacity of the fuel tank is 5.9L in total including 1.0L of reserve. open the lock cover of the fuel tank and fill fuel through the opening, and then close the tank by the cover with the two on them in good alignment.

② Operation of the fuel cock (the valve of fuel tank)

ON:With the handle of the fuel cock to " ON" position, the fuel circuit is through for fuel supply.

OFF:With the handle of the fuel cock to " OFF" position, the fuel circuit is cut off without supply.

RES:With the handle of the fuel cock to " RES" position, the fuel is supplied from the reserve. (Note: The reserved fuel can only be used when the normal supply is run out.) In this case, refueling should be carried out as soon as possible, for there is only some 1.0L of fuel reserve for use.



Engine Starting

Warning: Never start the engine in a closed place or warehouse or warehouse as the exhausted gas from the vehicle contains toxic carbon monoxide.

- ① Set the key of the ignition switch to "○" position.
- ② Ascertain the neutral gear.
- ③ Ascertain the amount of fuel in the tank.
- ④ Set the fuel cock handle to "ON" position.

★ To start a cold engine:

- ① Pull up the choke bar of the carburetor (to close the choke).
- ② Rotate the throttle twist grip by 1/8 to 1/4 turn.
- ③ Start the engine by the electric or the kick starting system.
- ④ Slightly turn the throttle twist grip to increase the speed of the engine so as to warm up the engine.
- ⑤ Turn the carburetor choke bar downward to fully open the choke when the engine is sufficiently warmed up.

★ Caution:

The engine can only be started after the neutral position is ascertained. Otherwise accident will happen.

Unnecessary idle running (especially at a high speed) is harmful to the engine.

★ Procedures for stopping the engine:

- ① Release the throttle twist grip to slow down the engine.
- ② Turn to the neutral position.
- ③ Set the ignition switch key to "⊗" position.
- ④ Set the fuel cock (the fuel tank valve) handle to "OFF" position.

★ Running-in of Engine

The first 1000km drive is for running-in of the vehicle, where attention shall be paid to the following points:

1. It is strictly prohibited to drive it carrying goods or climbing steep slope. The motorcycle shall not be driven continuously for more than 50km, the driving speed to be increased moderately.

2. The engine shall be warmed up for 3-5 minutes prior to each drive so as to have the running components lubricated sufficiently.

3. The driving speed shall not be over 40km/hour maximum during the first 500km drive and not over 55km maximum during the second 500km drive.

9

Switches on Left Handlebar

Ignition switch

The ignition switch is provided on the left handlebar.

When the switch is turned to "⊗" (off) position, the engine cannot start or stops during drive.

When the switch is turned to "○" (on) position, the engine can start and the vehicle be driven.



Gear Shifting

A mode of gear shifting is employed for this motorcycle.

The throttle shall be shut up before gear shifting and it is forbidden to shift gear with the throttle unclosed.

Gears shall be shifted gently but precisely home position.

It is not allowed to place your foot on the gear-shifting pedal during drive to avoid damaging the clutch caused by sudden gear shifting accidentally.

Legend for the right figure:

- 1) 1st gear
- 2) 2nd gear
- 4) 4th gear
- (N) Neutral gear
- 3) 3rd gear
- 5) 5th gear

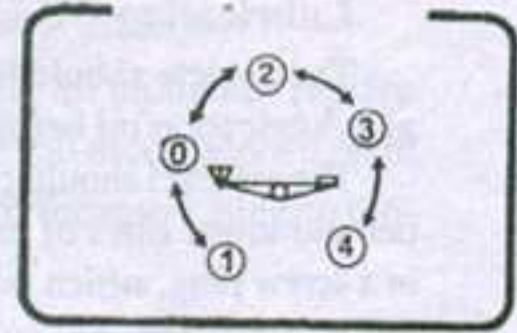
Points for Attention during Drive

1. Avoid unnecessary idling of the engine and it is not allowed, in particular, to have it idling at a high speed. Otherwise it will damage components seriously.
2. The clutch will be soon worn out if the motorcycle is driven with the clutch semi-disengaged.
3. Shift to the low speed gear when feeling that the power is not strong enough on climbing.
4. It is forbidden to use the front brake only or to coast by the neutral gear especially when descending or driving at high speed.
5. On braking, narrow the throttle, disengage the clutch at the same time and then apply the brake.

Shifting forward



Gear shifting



V. Check-ups, Adjustment and Maintenance

Lubricating Oil Checking

The vehicle should be checked for engine lubrication oil before drive each day.

The oil level should be between the upper and lower lines of the oil gauge fitted in a screw plug, which is on the right cover of the crankcase.

1. Set the motorcycle on ground vertically, screw off the oil gage plug, wipe the oil gage rod clean and then insert the unit into the crankcase again to check the oil level. To do this, there is no need to screw the oil gage plug into its hole in the crankcase.

2. Add lubricating oil up to the upper line when needed, but do not overfill.

3. Finally screw on the oil gage plug tightly.

Machine oil	20W-50	15W-50	10W-50	10W-40	15W-40	10W-30		
	20W-50	15W-50	10W-50	10W-40	15W-40	10W-30		
2	-30	-20	-10	0	10	20	30	40
F	-22	-4	14	32	50	68	86	104



Machine oil gauge

Caution:

Never start the engine when there is insufficient lubricating oil. Otherwise, it will cause harm to the engine.

Lubricating Oil Recommended

The lubricating oil is an important factor affecting the performance and service life of the engine. For this vehicle is used the gasoline engine lubricating oil (usually known as machine oil for vehicles) specified in China National Standard GB485-81. It is not permitted to use ordinary machine oil, vegetable oil or crude castor oil.

Lubricating oils of different viscosity shall be employed in different regions and at different temperatures.

For details, please see the attached chart.

Cleaning of Machine Oil Tank

① Drain off all the run-in machine oil from the oil tank.

② Dismount the related parts.

③ Wash clean all the related parts.

④ Fill in the required oil.

* This job should not be done by untrained persons but shall be done at an authorized service center.



Screw plug for oil draining

Check-up of Spark Plug

① Remove the cap of spark plug and screw off the spark plug by the plug wrench.

② Clean the spark plug all around or replace it if it is corroded or there is too much deposit on it.

③ Regulate the gap of the spark plug to 0.6-0.7mm.

④ The spark plug of the designated type should be used. The applicable type of spark plug: NHSP LD D8RTC made in China.



13

Check-up & Cleaning of Air Filter

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

Dismounting:

Wash the filter in clean washing oil and wipe it dry with dry cloth.

Soak the filter element in clean machine oil, Squeeze it dry cloth.

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 element shall be cleaned gently without twisting to prevent it from cracking. Never wash it with gasoline or any acid, alkaline or organic volatile oil to avoid its aging, which will result in no more effect of the adhesive agent. Replace the filter element with a new one if it is broken or cracked.

Adjustment of Throttle Cable

Make sure that the adjusting and lock nuts of the throttle cable work normally.

Check if the throttle twist grip is with the required free operating movement.

The required free operating movement: 2-6mm. If the grip can not be so moved freely, turn the adjusting nut to ensure it.

*After adjustment, start the engine and check for the free operating movement again. Repeat the adjustment if necessary until it is as required.

Caution:

Do not try to cover up any trouble of other parts of the carburetor by adjusting the idling speed. In case of any abnormality with the carburetor, it has to be removed by Service Center.

Adjustment of idling speed shall be made only when the cold engine is warmed up or 10 minutes after the motorcycle is stopped from driving.

Adjustment of Carburetor

The adjusting procedures of idling speed:

1. Support the vehicle by a stand.
2. Adjust the idling speed by the throttle stop screw (1) to 1500 ± 150 rpm.



Idling speed adjusting screw

15

Check-up & Adjustment of Air Valve Gap

Noise will stem from too big gap of the air valve. However if there is too small gap or even no gap at all, closing of the valve will be hindered, which will cause burn of the valve and output drop. Therefore, the air valve gap must be checked periodically.

The gap of the air valve should be inspected and adjusted with a cold engine by the following procedures:

- ① Remove the caps of the central hole and the top hole (the ignition timing observation hole) in the left crankcase cover.
- ② Remove the caps of the two air valves on the cylinder head.
- ③ Insert the "T" key into the central hole of the crankcase cover, jam it against the nut of the flying wheel and then turn the flying wheel clockwise until the engraved "T" mark on the flying wheel aligns with the engraved line on the top of the crankcase cover. Swing the rocking arm slightly. A loose rocking arm (which indicates the existence of clearance) shows that the piston is in the upper stop position of the compressing stroke, where the valve can be adjusted. A tight rocking arm means that the piston is in the lower stop position of the compressing stroke. In this case, continuously turn the "T" key clockwise for 360 degrees until the alignment of those engraved marks, where the valve can be adjusted. Afterwards, check the valve gap by inserting a feeler in between the valve adjusting screw and the end of the valve.

The specified air valve gap: 0.05mm for the intake and exhaust valves respectively.

16

Brake Checking

(1) Pull up the front and rear brakes respectively and check for wear of the brake shoes. If the mark "△" on the brake drum cover aligns with that "△" on the brake cam, it means that the brake shoes are already worn to the limit and have to be replaced.

(2) Replacement should be carried out at a designated service center and it is recommended that the parts made by our company are used therein.

Adjustment of Front Brake

1. The front brake lever has a free operating movement of 10-20mm as shown in the figure on the right side.

2. The adjustment shall be carried out by turning the adjusting nut beneath the front hub, clockwise to increase and counterclockwise to decrease the free operating movement.

3. It can also be adjusted by turning the front adjusting nut on the handlebar, clockwise to increase and counterclockwise to decrease the free operating movement.

4. The lock nut has to be tightened after adjustment.



Adjustment of Rear Brake

The Vehicle should be supported for check by the side stand.

1. The rear brake pedal has a free operating movement of 20-30mm.

2. To make adjustment, turn the rear adjusting nut clockwise to reduce and counterclockwise to increase the free operating movement of the brake pedal.

Adjustment of Chain

1. When regulation is needed, loosen the rear axle nut

2. Turn the chain adjusting nuts on the left and right sides



Disk, Disk, brake assy



Disc brake

to adjust the tension of the chain and to align the marking of the chain adjuster with the engraved lines in the similar position, on both sides.

3. Tighten the lock nut and rear axle nut by a torque of 35-50Nm.

4. Repetitively check the tension of the chain.

5. When the rear wheel is changed in position and the chain adjusted, the free operating movement of the rear brake pedal will be affected, which, therefore, should be checked thereafter and also regulated if necessary.

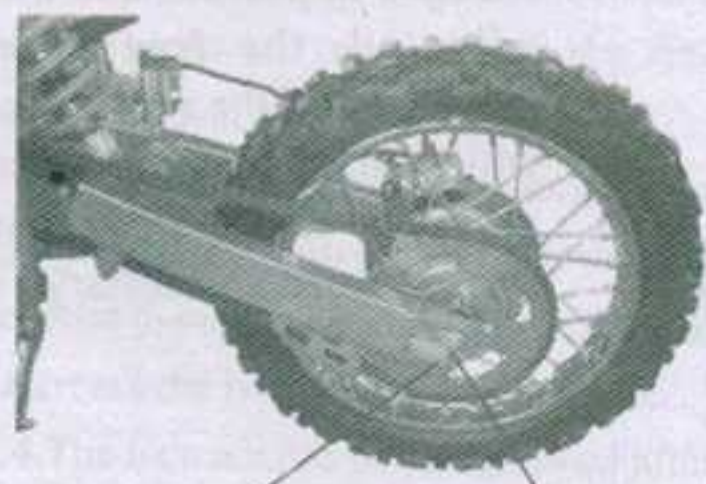
[Greasing procedures to the driving chain]

1. Shut off the engine.

2. Add some machine oil or chain grease to the driving chain.

Attention:

When the rear wheel axle has moved to the back adjusting limit, if excess loose be cause of wearing to the driving chain, please change with a new one.



Rear wheel axle nut

Rear wheel axle

Vehicle Washing

Cleaning the vehicle regularly can slow down the color fading of its body and make it easier to check if there is any damage and any oil leakage with it.

Caution:

Washing the motorcycle with over-pressurized water may cause damage to some of its components. Therefore, do not jet over-pressurized water directly on to the following parts:

- Wheel hub
- Exhaust pipe
- Fuel tank and lower portion of cushion
- Carburetor
- Head lock and ignition switch
- Meters

(1) After pre-wiping, the vehicle should be washed with clean water to remove dirty residues so as to prevent corrosion. Plastic subassemblies should be cleaned by wiping with cloth or foam soaked in neutral detergent solution, followed by washing with clean water.

(2) After the cleaned vehicle is air dried, grease the chain and run the engine at idling speed for a few minutes.

(3) Prior to driving, carefully check the braking system repeatedly and repair or adjust it if necessary.

Instructions for Storage

For the motorcycle not to be used for a long period of time, for example, in wintertime, some steps should be taken to prevent malfunction of and damage to its components which might be caused by long storage. Besides, before the long storage, proper maintenance has to be carried out for fear that it might be forgotten when the vehicle is put back into use after storage.

1. Change engine oil and oil filter.
2. Drain off fuel from the fuel tank and carburetor, spray atomized anti-rust oil onto the inside wall of the tank and then close the tank.

Attention:

If the storage will last for more than one month, fuel in the carburetor must be fully drained off, which is very important because it will help ensure that the carburetor maintains its normal performance after the storage.

Warning:

Gasoline is inflammable and may cause fire and even explosion under certain conditions. Therefore, do not smoke, make fire or have any fire left behind

on draining off fuel.

3. Take out the spark plug, pour about 15-20ml of clean engine oil into the cylinder, step down the kick lever repetitively for several times so as to have machine oil distributed all over the engine and finally fit the spark plug back on.

Attention:

The ignition switch must be set to "⊗" (off) position stepping down the kick lever. To protect the ignition system from damage, the spark plug should be inserted in its cap and earthed.

4. Wash the vehicle clean, wipe it dry and apply an even coat of wax to the painted surface and a coat of antirust oil to the chrome-plated surface.

5. Inflate the tyre as required and pad the vehicle up by wooden blocks with the two wheels clear of the ground.

6. Put the vehicle in a shady and cool place free from humidity and direct sunshine and cover it properly (but not with plastic or other painted materials). If there is a garage, store it therein.

Resumption of Service after storage

1. Remove the covering and lean the vehicle. Change the engine oil if the vehicle has been off service for over 4 months.
2. Drain off the remaining atomized antirust oil from the fuel tank, followed by filling it with fresh gasoline therein.
3. Prior to driving, all the required check-ups must be made. It is better to drive it at a low speed in a place of traffic safety to test its performance before normal drive.

Table of Torque for Fasteners

Ser. No.	Fastener	Torque (Newton/m)
1	Front wheel axle nut	35-45
2	Rear wheel axle nut	50-60
3	Nut for tightening upper joining plate of front fork with vertical tube	40-50
4	Nut for fixing engine	20-25
5	Rear arm nut	35-50
6	Exhaust silencer nut	20-25
7	Bolt for tightening upper joining plate of front fork with shock-ablorber	15-20
8	Bolt for fixing footrest	20-25

Resumption of Service

- ① Remove 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.
- ③ Drain 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

The vehicle should be under good maintenance as specified in the following table, where:

"I" means: Check, cleaning, adjustment, lubrication and / or replacement are needed.

"C" means: Cleaning is needed.

"R" means: Replacement is needed.

"A" means: Adjustment is needed.

"L" means: Lubrication is needed.

"*" 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.

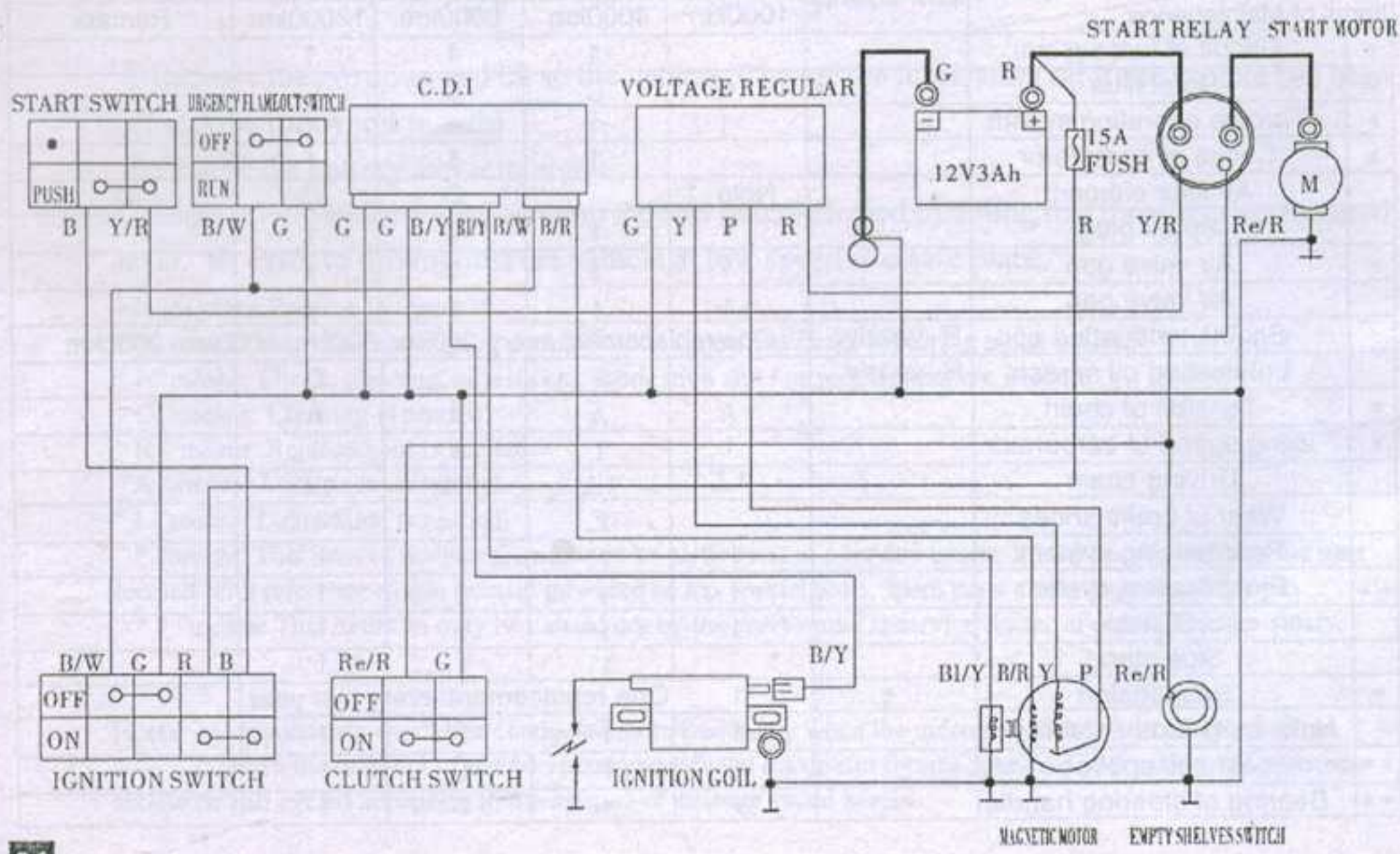
"**" means: This item can only be carried out by the serviceman at service center in order to ensure safety.

Notes: 1. Maintenance should be conducted more frequently when the motorcycod drives in dusty areas.

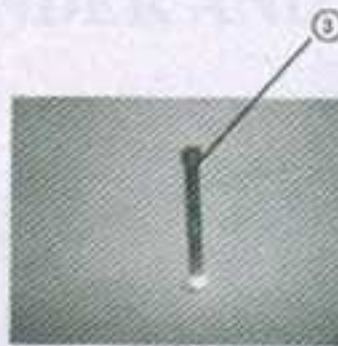
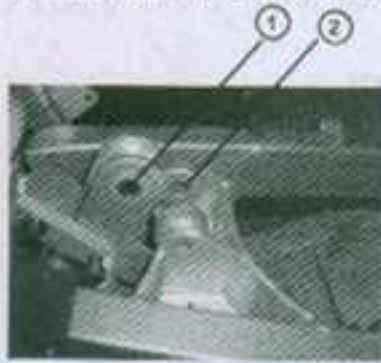
2. When the read-out of the odometer exceeds the maximum figures specified in the table, maintenance should be still cycled according to the interval of mileage stated herein.

Items of Maintenance	Frequency	Item/Frequency	Odometer km (Note 2)				Remark
			1000km	4000km	8000km	12000km	
* Circuit of fuel system				1	1	1	
* Fuel filter			C	C	C	C	
* Throttle operating system			1	1	1	1	
* Choke of carburetor				1	1	1	
Air filter element		Note 1			C	C	C
Spark plug			1	1	1	1	
* Air valve gap			1	1	1	1	
Air valve gap			1	1	1	1	
Engine lubricating oil	R-yearly		One replacement every 300km. 600km. 1000km. 2000km				
Lubricating oil screen	R-yearly					C	
* Tension of chain			A	A	A	A	
* Idling speed of carburetor			1	1	1	1	
Driving chain			1.L	1.L	1.L	1.L	
Wear of brake shoes				1	1	1	
Rear braking system			1	1	1	1	
** Front braking system			1	1	1	1	
Clutch			1	1	1	1	
Side stand				1	1	1	
* Suspension			1	One replacement every two year			
* Nuts, bolts & other fasteners			1	1	1	1	
** Wheel/ spokes			1	1	1	1	
** Bearing of steering handle			1			1	

ELECTRICAL DIAGRAM



STEP 1: FIX THE A B LINK LEVER



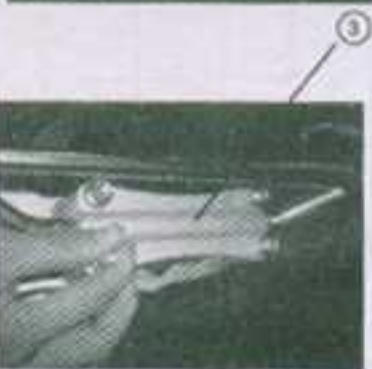
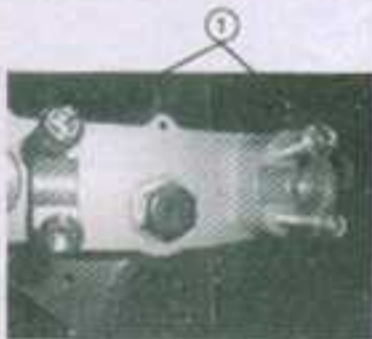
PIC 1

NO.	DESCRIPTION	SIZE	REMARK
1	A-B LEVER FIXING HOLE		ON THE BIKE
2	A-B LEVER FIXING HOLE(REAR SWING FRAME)	M10	ON THE BIKE
3	BOLT NUT		REAR SWING FRAME

1. Fix 1 and 2 with 3

ATTENTION: The bolt must go through 1 and 2 from right to left as picture 1

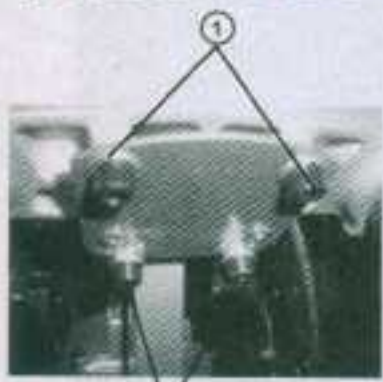
STEP 2: FIX THE HANDLE BAR



NO.	DESCRIPTION	SIZE	REMARK
1	Handlebar fix seat	M8	On 4
2	Handlebar		On the bike
3	Handlebar fixing		In the box
4	Handlebar fix seat		On the bike

1. Take off 1 from 2
2. Fix 2 on 4 with 1 and 3

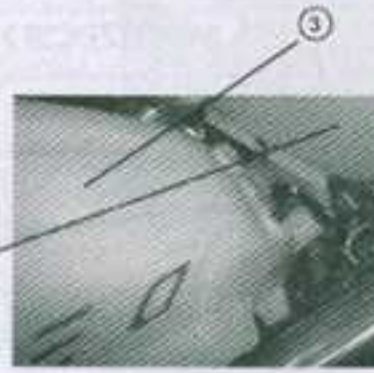
STEP3: FIX THE FRONT FENDER AND EARMARK BOARD



PIC1



PIC5



PIC2

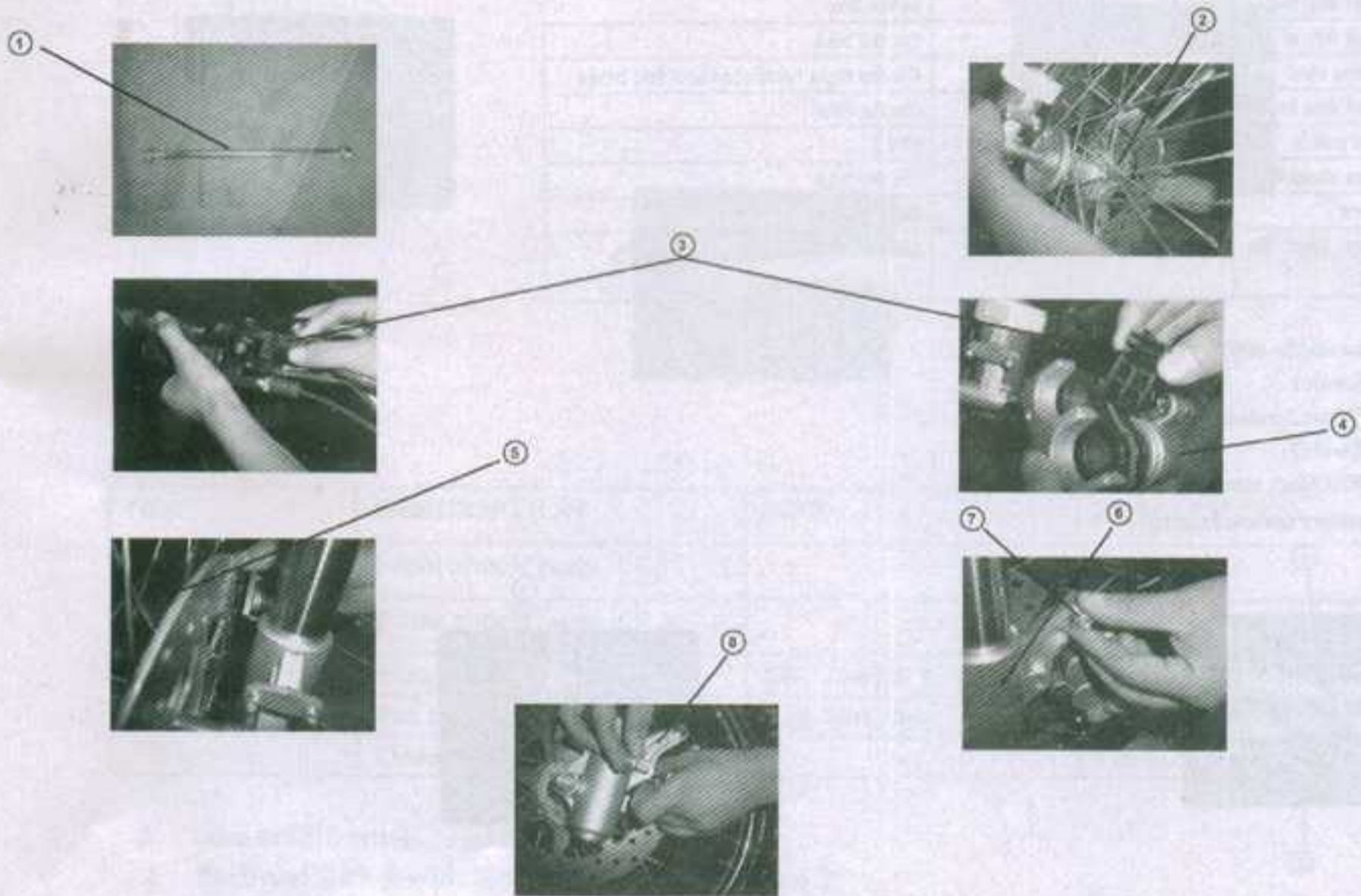


PIC4

NO.	DESCRIPTION	SIZE	REMARK
1	SCREW	M8 (2PCS)	On the bike
2	SCREW	M6 (2PCS)	On the bike
3	FRONT FENDER		In the box
4	MARK BODY		In the box
5	SCREW	M8	On the bike

1. Take off ① and ②
2. Fix ③ with ②
3. Put ④ above ③, fix ③ and ④ with ① as pic 2 and pic 3
4. Fix ④ with ⑤ as pic 5

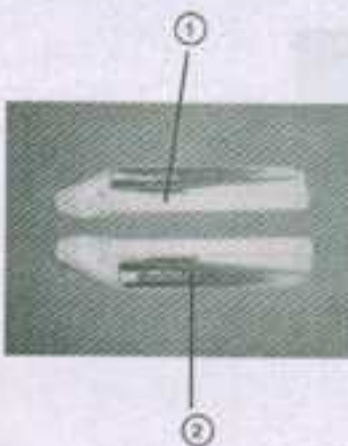
STEP 4: FIX THE FRONT WHEEL



NO.	DESCRIPTION	SIZE	REMARK
1	Front axis nut		In the box
2	Front wheel		On the bike
3	Plastic card	2pcs	On the right handlebar and disc brake
4	Front disc brake		On the bike
5	Disc patch		ON 2
6	Front shock		On the bike
7	Screw	M8	On the bike
8	Front disc fix seat	2pcs	On 6

1. Put 2 in the middle of 6
 2. Fix 2 on 6 with 1
 3. Take out 3 from handlebar and 4
 4. Fix 4 on 8 with 7
- ATTENTION: Mark sure 5 insert 4

STEP 5: FIX FRONT SHOCK PLASTIC





①

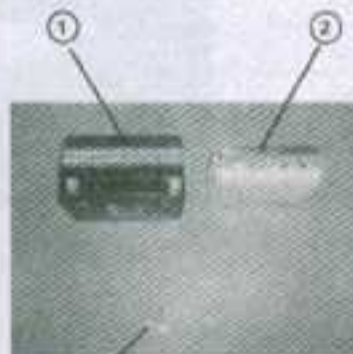


③

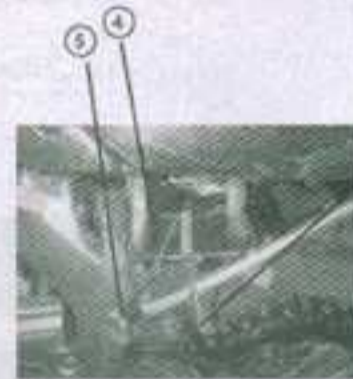
NO.	DESCRIPTION	SIZE	REMARK
1	Front shock body (L)		On the bike
2	Front shock body (R)		On the bike
3	Screw	M6 (4PCS)	On 4
4	Fix seat(front shock body)	Left and right	On the front shocke
5	Groove		On the front shock

1. take off ③ from ④
2. fix ① and ② on ④ with ③, make sure ⑤ insert ① and ②

STEP 6: FIX THE BATTERY



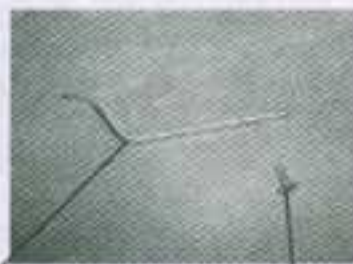
①



③

④

⑥



⑦



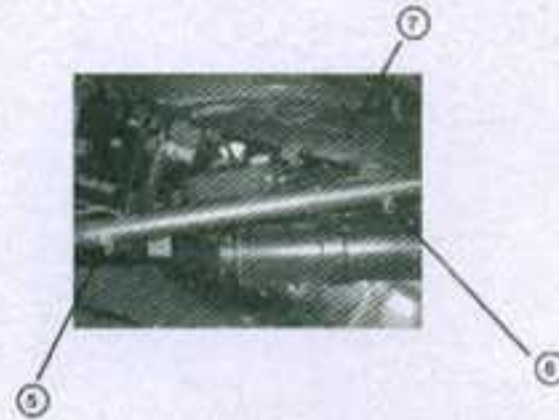
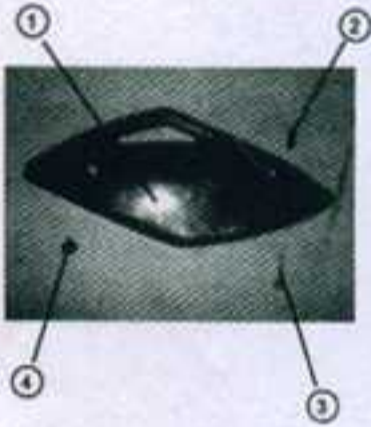
PIC1

⑧

NO.	DESCRIPTION	SIZE	REMARK
1	Battery		In the box
2	Battery electric liquid		In the box
3	Battery screw		In the box
4	Battery seat		On the bike
5	Black line(-)		On the bike
6	Red line(+)		On the bike
7	Fixness lever		On the bike
8	Fixness screw		On the bike

1. Fill ② in ① follow the electric liquid, please according to the user manual in the battery box
2. put ① into ④
3. Connect ⑤ and ⑥ with ① used ③.
ATTENTION: make sure the red wire connect with "+", and the black wire with "-"
4. Fix ⑦ on ④ with ⑧ as picture 1

STEP 7: FIX THE REAR PLASTIC PARTS



NO.	DESCRIPTION	SIZE	REMARK
1	Rear seat side body		In the box
2	Screw rubber		On the bike
3	Screw	M6	On the bike
4	Screw	M6	On the bike
5	Screw hole		On the frame
6	Screw hole		On the frame
7	Rear seat body		On the bike

1. Take off ②③④ from ⑤ and ⑥
2. Fix ① on ⑤ and ⑥ with ⑦
3. Fix ① on ⑥ with ② and ③. make sure ② inside, ③ out side