MOTRON

SERVICE MANUAL

VOLTZ

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WARRANTY

The work prescribed in the service schedule must be carried out in an authorized workshop and confirmed in the customer’ s service card, otherwise no warranty claims will be recognized. No warranty claims can be considered for dam-age resulting from manipulations and/or alterations to the vehicle.

REPAIR MANUAL

It is important that you read this manual completely before the start of work. It contains useful infomation how to repair and maintain the vehicle.

PRACTIC

Special tools are required for some work but mostly professional work shop equipment is enough
for service,repair and maintenance of the vehicle. Special tools mentioned inside of this manual. When thread locker is used on connections , follow the instructions for use
from the manufacturer. After disassembly ，clean the parts that are to be reused and check them for damage and wear. Re place damaged or worn parts.

IMPORTANT

- ❖ After each repair or maintenance work security check and a test drive must be done.
- ❖ Before you delivery the vehicle to the customer a road safety test must be done.
- ❖ Tighten the bolts of large diameter or the inner ones first,then screw down to the required orders
- ❖ of diagonal,unless otherwise specified.
- ❖ Rinse the parts disassemble with cleaner fluid,lubricate all the lubricating surfaces required before assembly.

NOTES AND WARNINGS

Pay attention to the notes/warnings in this manual.

⚠ WARNING

- ❖ **Identified dangers that will lead to environmental damage if the measures are not taken.**
- ❖ **Identified dangers that will lead to environmental damage if the measures are not taken.**
- ❖ **Identified dangers that will lead to considerable machine and material damage if the measures are not taken.**
- ❖ **Identified dangers that will immediately lead to fatal or serious permanent injury if the appropriate measures are taken.**

NOTE

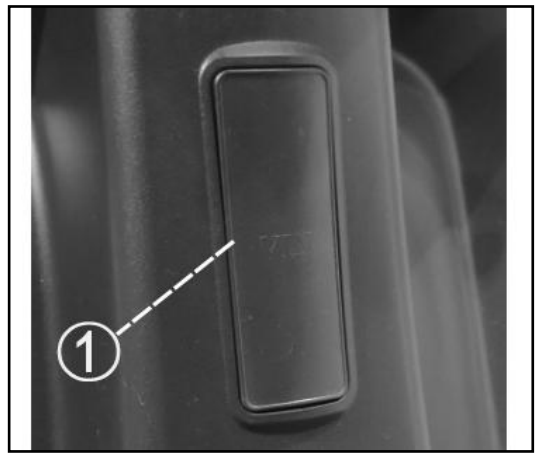
Indicates special information to make maintenance easier or instructions cleaner.

GENERAL INFORMATION

RIGHT SIDE VIEW

LEFT SIDE VIEW

VEHICLE IDENTIFICATION NUMBERS

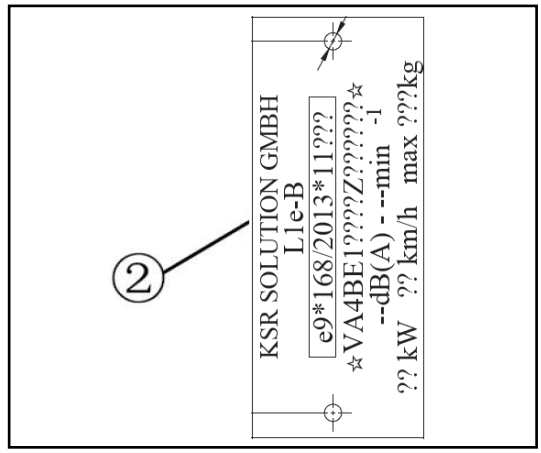


FRAME NUMBER

- The chassis number is stamped into the frame. To see this, take the cover (1) from the inner lining in the foot.

FRAME PLATE

- The frame plate(2) is fixed on the right-side of the frame.

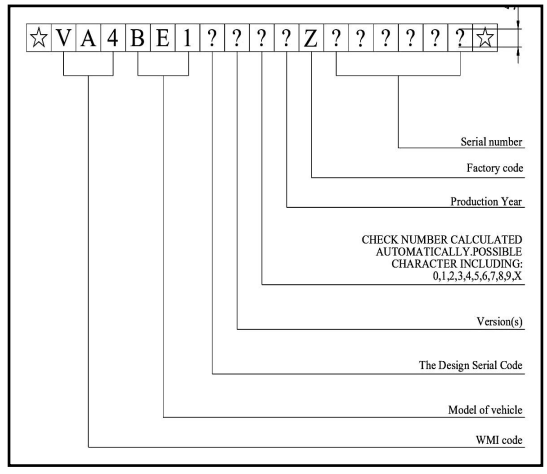


MOTOR NUMBER

- The motor number (3) is stamped into motor cover.

VIN CODE DESCRIPTION

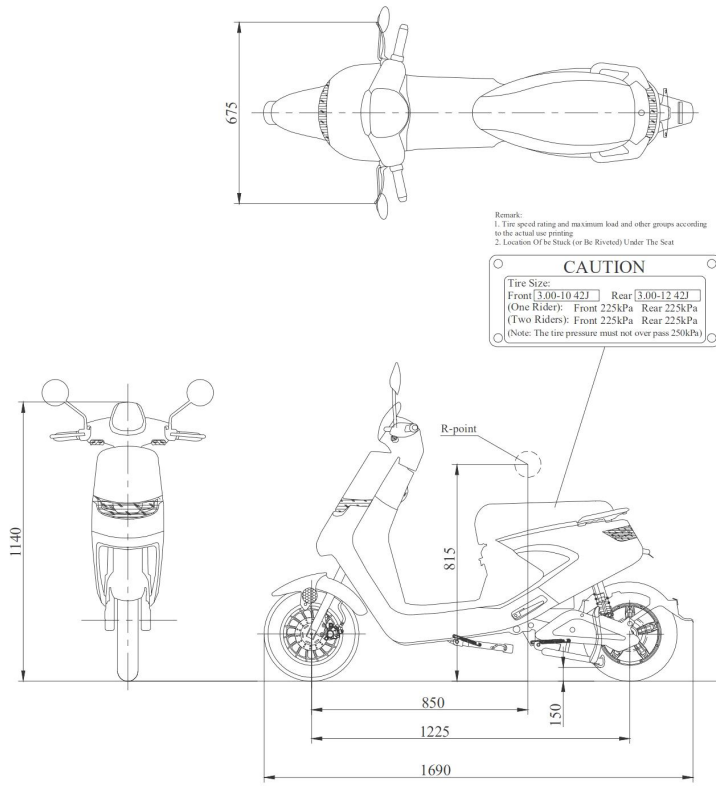
- The chassis serial No (4) (or VIN) and the engine serial No is required especially for registering this vehicle and ordering spare part.



NOTE

The vehicle identification number is used to identify your motorcycle and may be used to register your vehicle with the licensing authority in your area.

DIMENSIONS



MAINTENANCE SCHEDULE

The inspection intervals are required,other-wise,no guarantee can be granted		300km	2000km	4000km	6000km	8000km	10000 km
PART	TO DO						
Common check	Inspect	I	I	I	I	I	I
Steering handle assembly	Inspect /replace	I/R	I/R	I/R	I/R	I/R	I/R
Fittings, buttons and seal of vehicle	Inspect /adjust	I/A	I/A	I/A	I/A	I/A	I/A
Front and rear brakes	Inspect	I	I	I	I	I	I
Suspension system	Inspect	I		I		I	I
Electronic assembly	Inspect	I	I	I	I	I	I
Bearing of front and back wheels	Inspect /replace		I	R	I	R	I
Tire	Inspect				I		I
Steering bearing	Adjust /clean				A/C		A/C
Brake assembly	Inspect		I	I	I	I	I
Brake oil	Replace				R		
Suspending system - Front	Inspect	I	I	I	I	I	I
Suspending system - Rear	Inspect	I		I	I	I	I
Bracing wire	Inspect /replace			I	I	I	R
Battery terminal	Inspect				I	I	I
A—ADJUST C—CLEAN I—INSPECT R—REPLACE							

PERIODIC MAINTENANCE

Parameters

ENGINE	
Type	Brushless DC - Electric Motor
Voltage	48V
Maximum power	2.0 kw at 400 min-1
Maximum torque	47.5 N.m at 400 min-1
Maximum speed	45km/h
BATTERY	
Type	Lithium
Voltage Capacity	48V 26Ah
TRANSMISSION	
Type	DC-electric wheel hub motor
CHASSIS	
Type	Steel tube
TIRE	
Front tire	
Rim	MT 2.15*10
Tyre	3.00-10
Tyre air pressure	2.2 bar-2.3 bar
Rear tire	
Front tyre	3.00-10
Rim	MT 2.15*10/2.15*10
Tyre air pressure	2.2 bar-2.3 bar
The selected tired pressure depends on the load	

BRAKE SYSTEM	
Type	Single Hydraulic disc brake
Size front	Ø180mm
Operation front	Right hand
Size rear	Ø180mm
Operation rear	Left hand
Brake fluid	
Type Recommended	DOT 4
SUSPENSION	
Front SUSPENSION	
Type	Telescopic fork
Spring/shock absorber type	Coil spring/Oil damper
Rear suspension	
Type	Unit swing
Spring/Shock absorber	Gas/Oil damper
LAMPS	
Headlight	LED
Tail light/Brake light	
Front turn signal light	
Rear turn signal light	
License plate light	

TABLE OF TORQUE FORCE OF FASTENERS

Name of fastening parts and fasteners	Tightening torque (N▪m)
Mounting bolt of front brake cylinder assembly	22-29
Fixing bolt of disc brake handle	5-9
Fixing bolt of handlebar welding assembly（M10）	40-45
Front wheel spindle locking nut（M12）	68-85
Front absorber fixing nut （M12）	55-62
Rear wheel fixing nut（M16）	100-113
Rear absorber top nut（M10）	37-44
Rear absorber bottom nut（M8）	22-29
Rear rack fixing bolt（M6）	22-29
Helmet box fixing bolt（M6）	5-9

NOTE

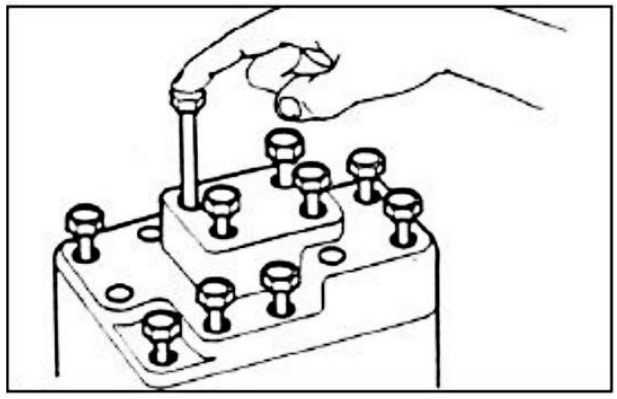
If no specific torque is given for a bolted assembling use the table below to tighten the screws.If you release a bolted and glued assembling it must be glued in assembling again. For the bonding of screws use Loctite ® 243 ™, follow the instructions for use from the manufacturer.

MAXIMUM TORQUE IN NM REFERRING ISO 898/1 FOR METRIC FASTENERS/COEFFICIENT OF FRICTION 0.12			
SIZE	*Strength(R)3,6	*Strength(R)8,8	*Strength(R)12,9
M1.6	0,047Nm	0,169Nm	0,285Nm
M2	0,10Nm	0,35Nm	0,60Nm
M2.5	0,21Nm	0,73Nm	0,12Nm
M3	0,36Nm	0,12Nm	0,21Nm
M4	0.82Nm	3.0Nm	5.1Nm
M5	1.6Nm	5.9Nm	10.0Nm
M6	2.8Nm	10.1Nm	17.4Nm
M8	6.8Nm	24.6Nm	42.2Nm
M10	13.7Nm	48Nm	83Nm
M12	23Nm	84Nm	144Nm
M14	37Nm	133Nm	229Nm
M16	57Nm	206Nm	354Nm
M18	80Nm	295Nm	492Nm
M20	112Nm	415Nm	692Nm

*The value R(strength) indicates the material property,The lower the value of R is the lower the torque of the bolts.

The length of bolt or screw is different in terms of assembly parts and protective plate.

It should be installed in the right position, if confused, place the bolt into the hole to check whether it fits or not.



Special tools are required for some work but mostly professional work shop equipment is enough for service,repair and maintenance of the vehicle. After disassembly, clean the parts that are to be reused and check them for damage and wear. Replace damaged or worn parts.

NAME	REMARKS
Spacer gauge	**Figure 1**
Inner hexagon wrench	**Figure 2**
Micrometer	**Figure 3**
Dial indicator Figure 4	**Figure 4**
Magnetic stand, V-shape block	**Figure 5**
Steering nut wrench	**Figure 6**
Steering nut wrench	**Figure 7**
Universal meter	**Figure 8**
Brake bleeder device	**no picture**

Figure 1

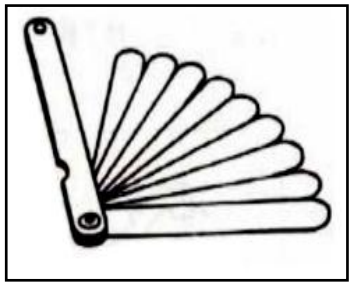


Figure 2

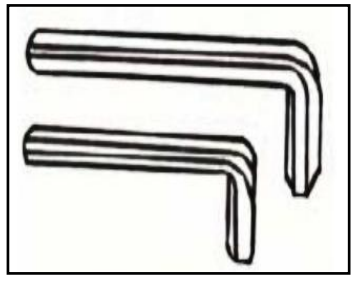


Figure 3

Figure 4

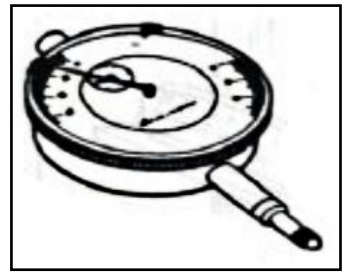


Figure 5

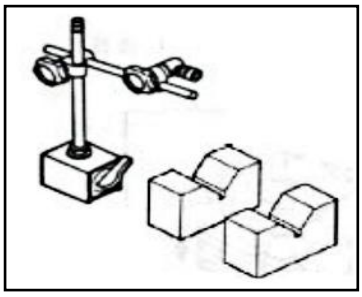


Figure 6

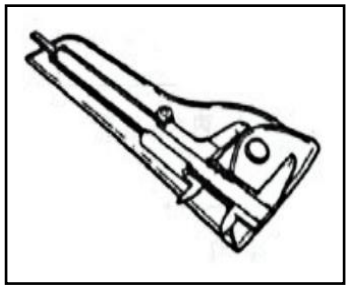


Figure 7

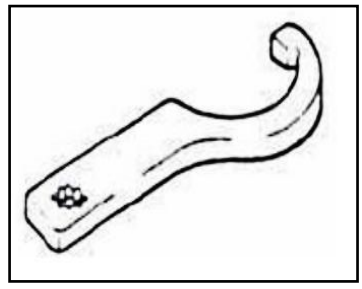
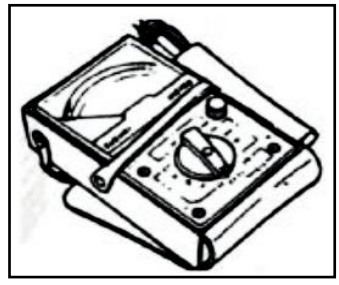
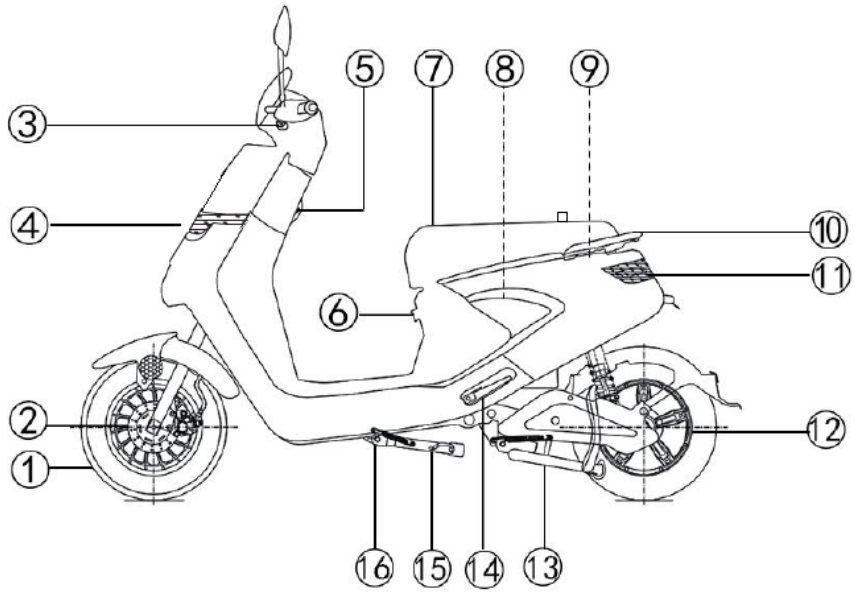


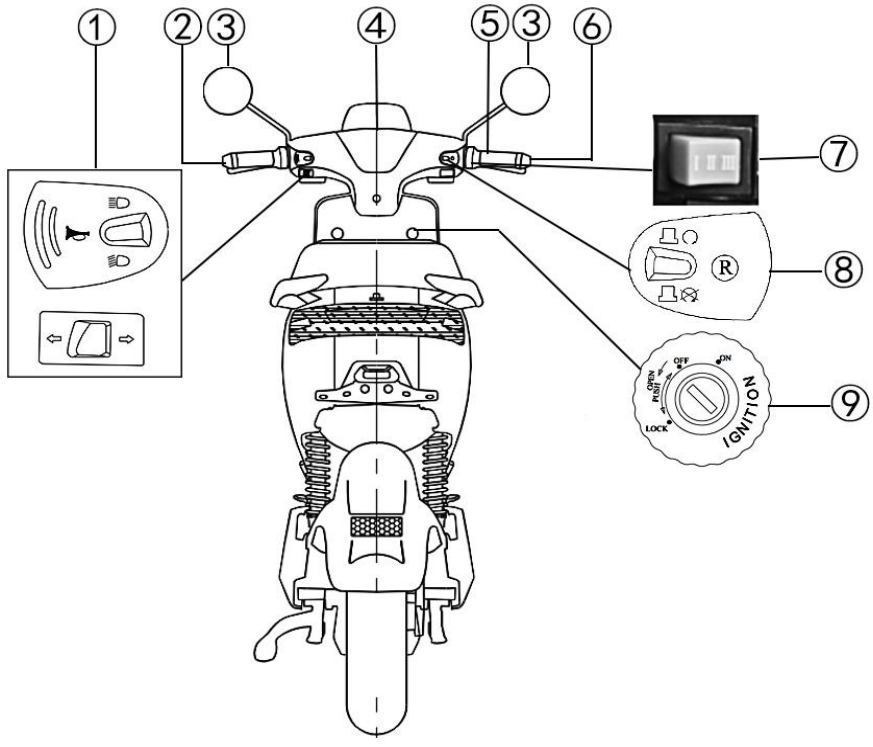
Figure 8



Detailed description



1. Front wheel 2. Front disc brake 3. Front turn signal light 4. Headlight 5. Helmet holder 6. Charging socket 7. Seat 8. Battery 9. Controller 10. Rear carrier 11. ail/Rear turn signal light/ brake light 12. Motor 13. Main stand 14. footrest 15. Side stand 16. Side stand switch



1. Left handlebar switches 2. Rear brake lever 3. Rear view mirror 4.Speedometer 5. Throttle grip 6.Front brake lever 7.Gear Change 8. Right handlebar switches 9. Main switch

TIPS

1. CHARGER

1. When charge the battery with a charge,first plug of the charger then the input one.During the charging, both the power indicator and charging indicator of the charge show red. The charging indicator turns to green after full charged.When stop charging,unplug the input first and then the output plug of the charger.
2. The charger should be provided with protection against moisture and damp during the using and be put in a well-ventilated place.
3. As a kind of precise electronic equipment,the charger should be protected against vibration during using and better not to carry it with the electric vehicle.In case the charger is damaged, charge the battery with a charger in same brand, type, voltage and charging current, otherwise it will lead to negative effects on the battery or damage the charger again.

2. CONTROLLER

1. Controller is the component to control the motor speed and also the core of the power driven system of the electric vehicle. The controller features the functions of under voltage current-limiting and over current protection.
2. Controller, the key part of the electric vehicle on energy management and signal processing, is a kind of precise electronic equipment and should be protected against the immersion of rain water. In case the controller is damaged, do not disassemble by yourself. Send the damaged controller to professional 3. 3. In case the controller is damaged, do not disassemble by yourself. Send the damaged controller to professional maintainer or original manufacturer for repair.

3. MOTOR

1. Brush less and gear less motor is adopted in this electric vehicle. Prevent the center of the motor against the water during driving,otherwise it will affect the service life of the motor.
2. In case the motor is in excess temperature(25° above the environment temperature)after a period of driving, Send it to professional maintainer for repair.

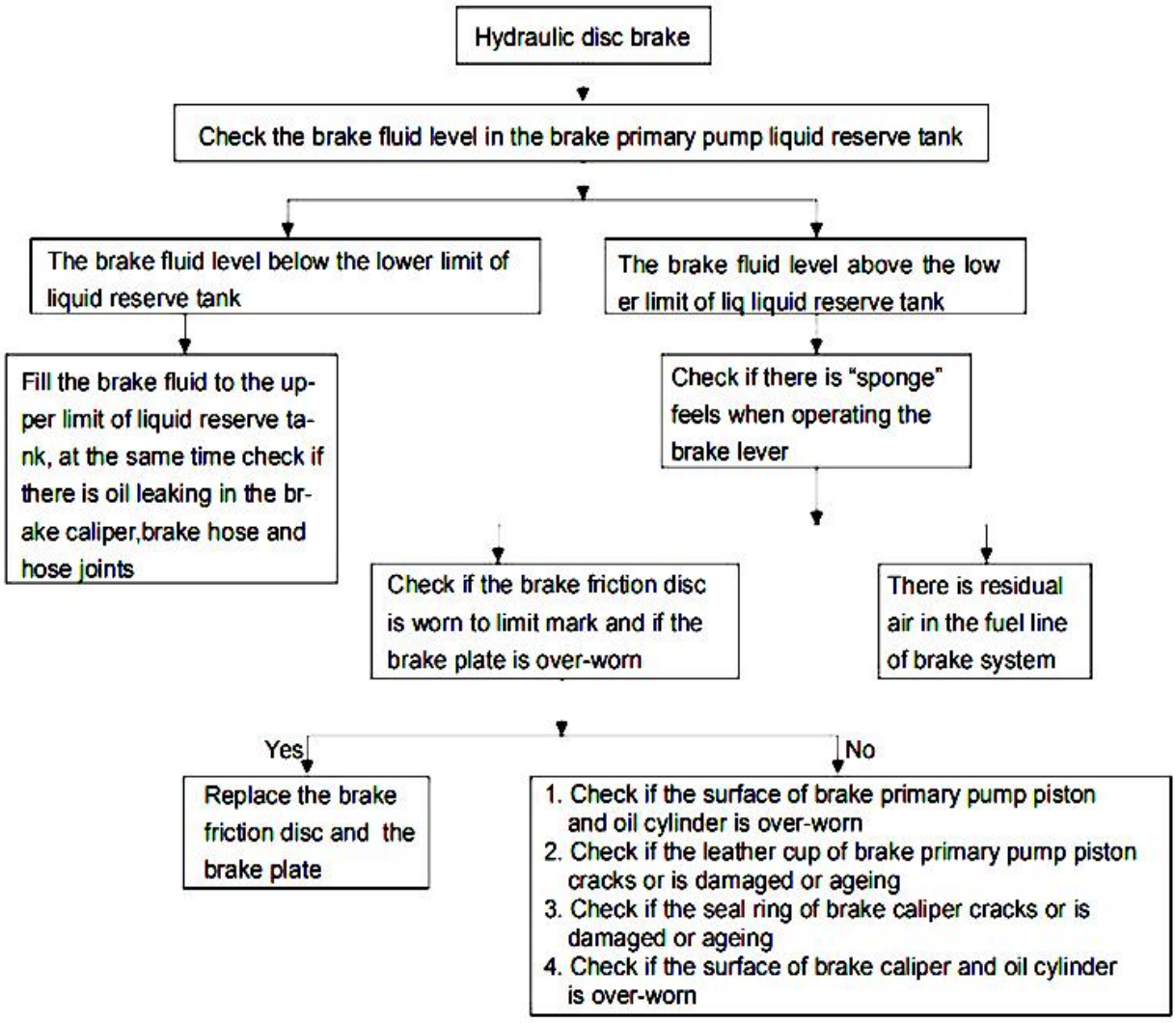
4. BATTERY

1. It suffers a period of turnover time from the delivery to the use of the electric vehicle, while the battery will be in self internal discharge during the storage,consume some electric quantity and fail to reach the rated capacity;therefore it would be best if the user make boost charge before initial use.
2. To develop a habit of frequent charging and avoid“deep discharging”;make one additional charging if long time no use.
3. There will be a small quantity of voltage after a period since the meter electric quantity shows no power for the battery,this is known as“recovery voltage”,which could not be used for driving ,otherwise it will lead to excessive“deep discharging”of the battery and affect its service life.
4. Keep the battery away from the combustion source and heat source. No direct insolation in the sun in hot seasons nor strenuous vibration,impact or positive/negative electrode short circuit.Keep the internal and external of the battery box clean. 5. Do not disassemble the battery at will to avoid danger. Take the scrapped batteries to recycling station (supplier) for unified disposal.Do not throw them arbitrarily to prevent environmental pollution.

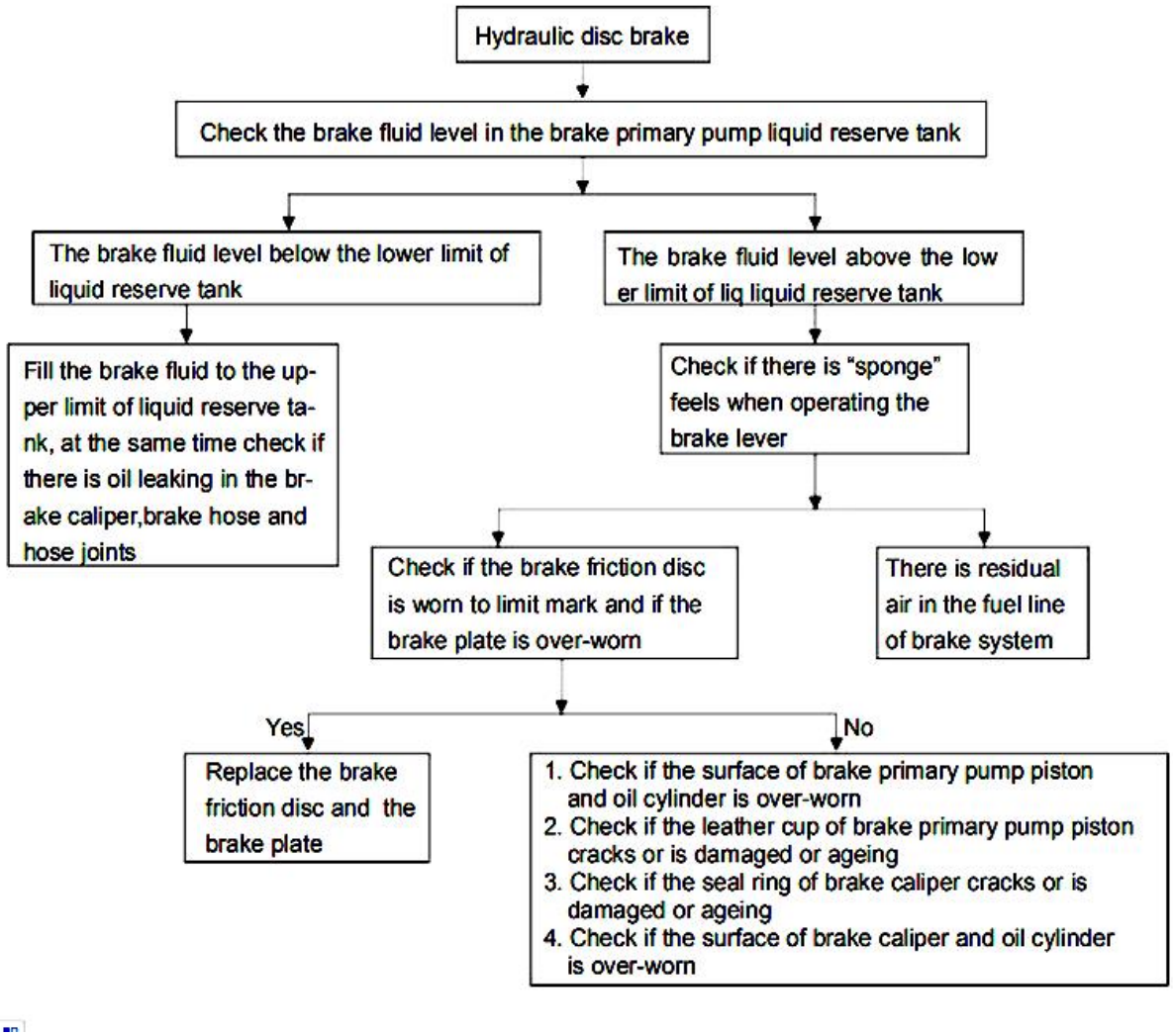
Failure Diagnosis

FAILURE DIAGNOSIS

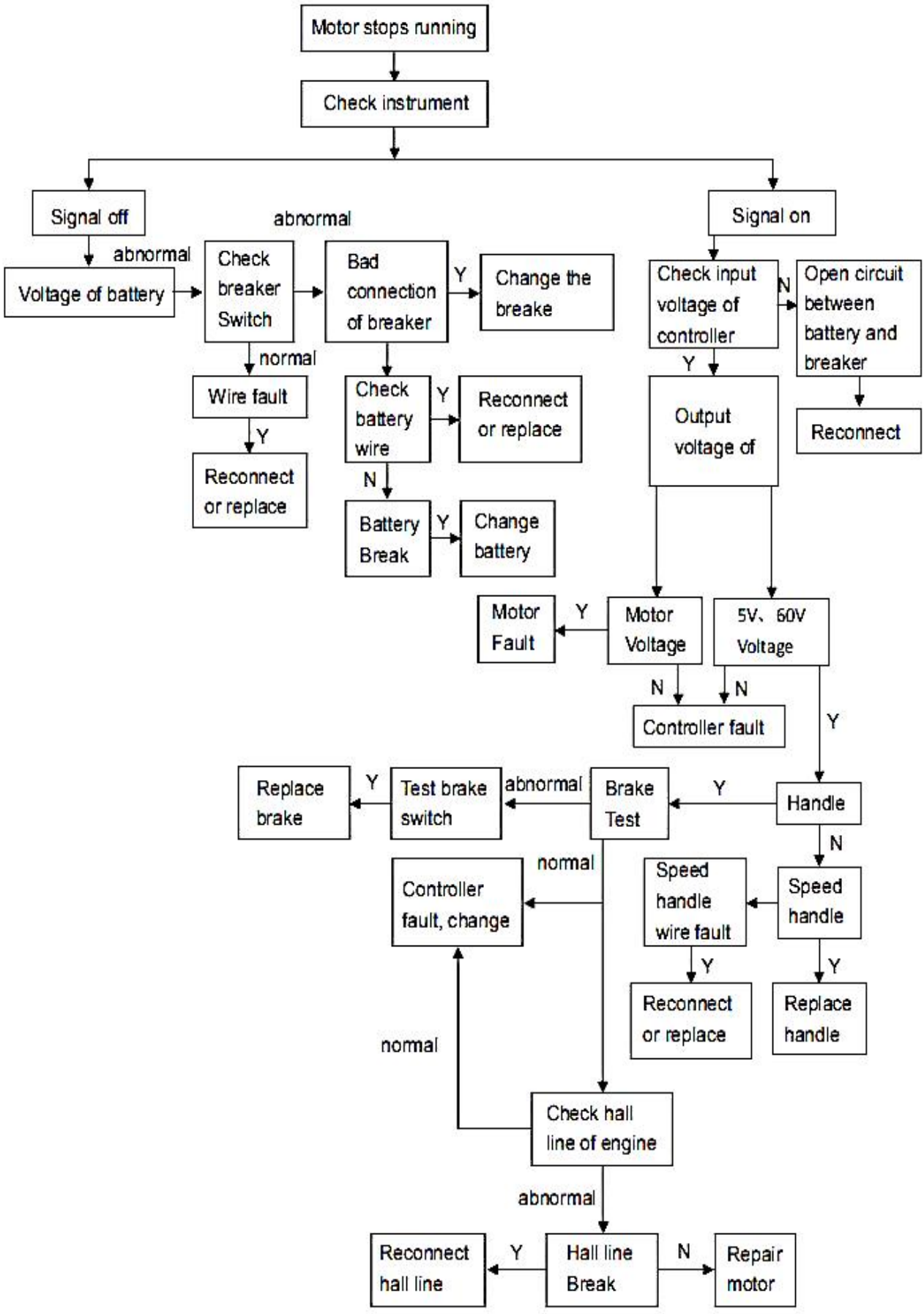
FAILURE DIAGNOSIS PROCEDURE WHEN THE HYDRAULIC DISC BRAKE FAILS



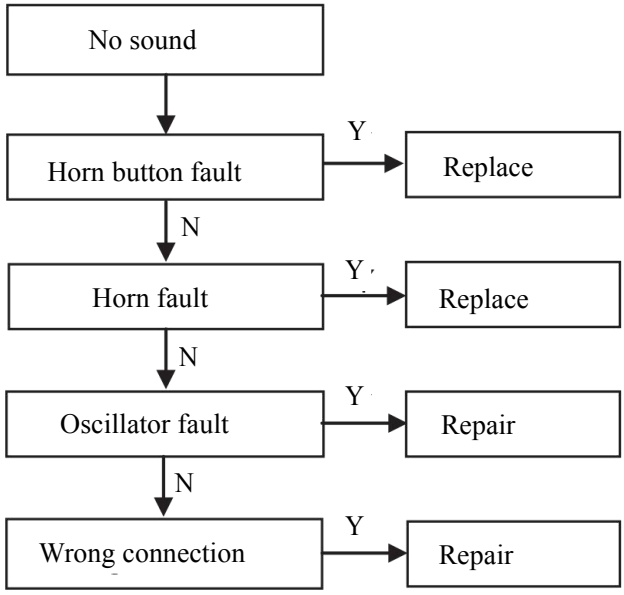
FAILURE DIAGNOSIS PROCEDURE WHEN MOTOR STOPS RUNNING



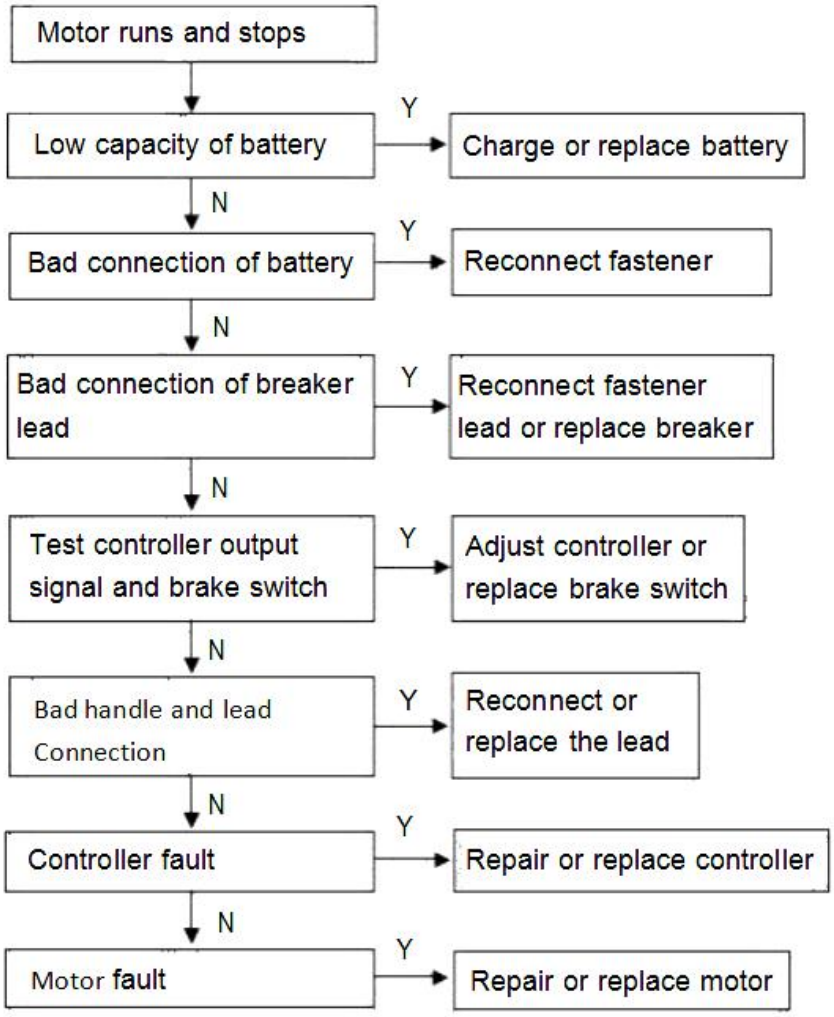
FAILURE DIAGNOSIS PROCEDURE WHEN MOTOR STOPS RUNNING



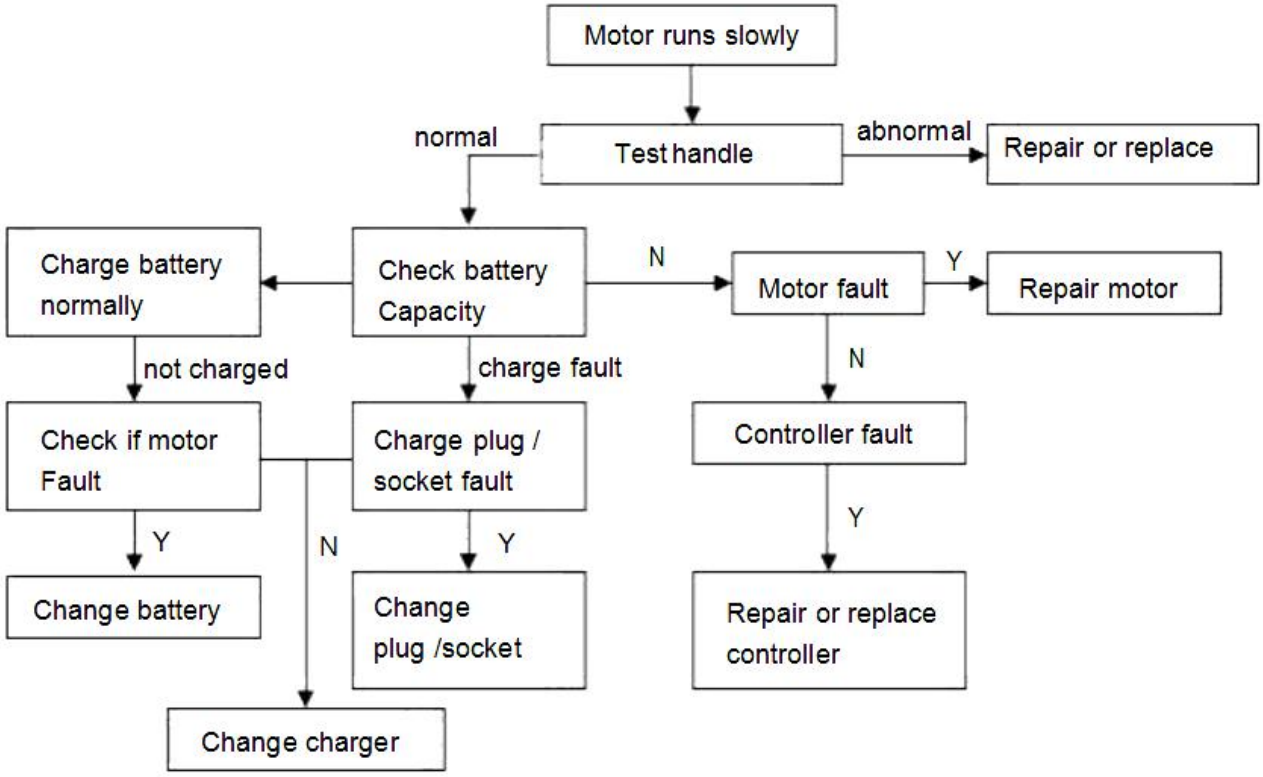
MAINTENANCE PROCEDURE WHEN MOTOR WON'T STOP RUNNING



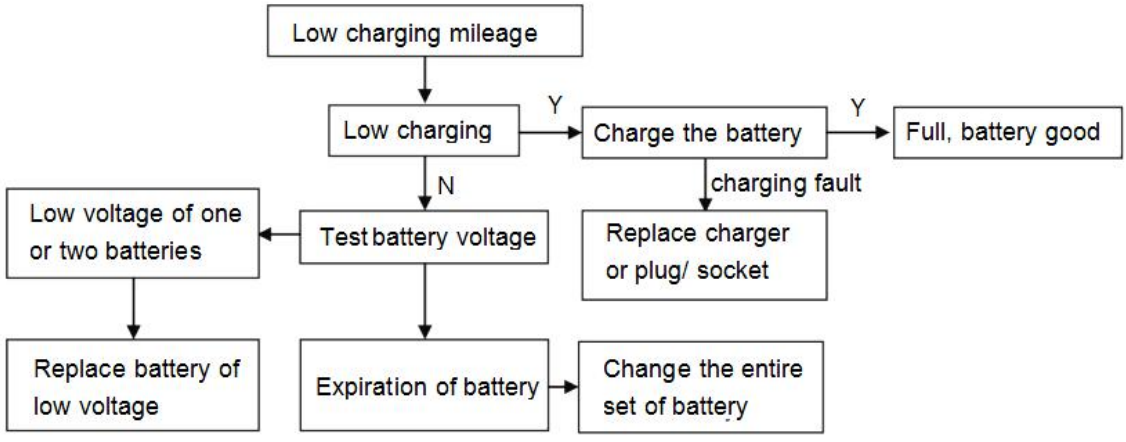
MAINTENANCE PROCEDURE WHEN HEADLAMP OR TURN SIGNAL OFF



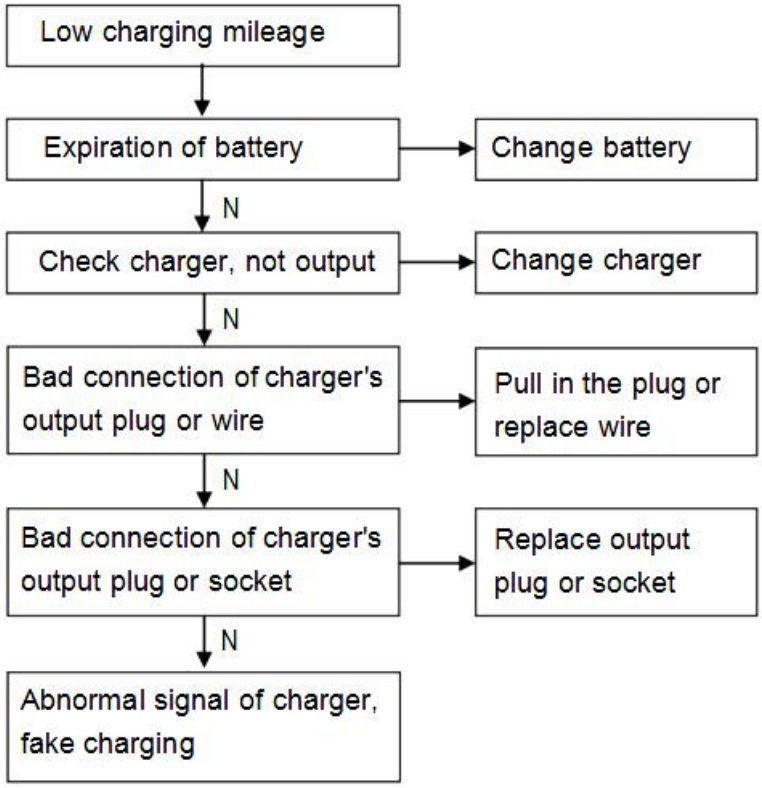
MAINTENANCE PROCEDURE WHEN MOTOR RUNS SLOWLY



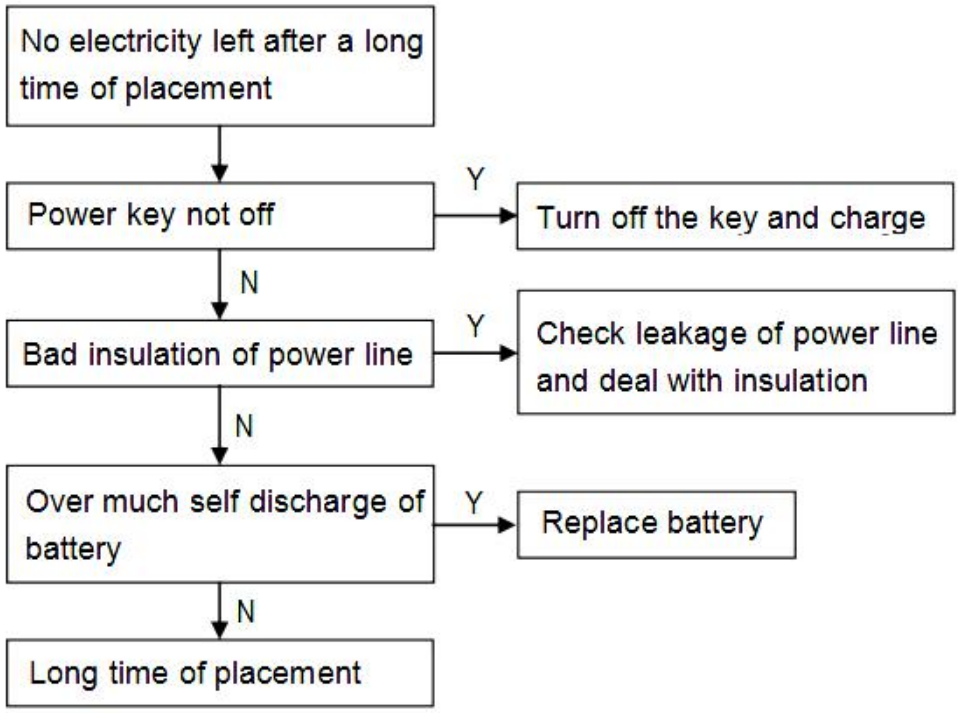
MAINTENANCE PROCEDURE FOR BAD CHARGING



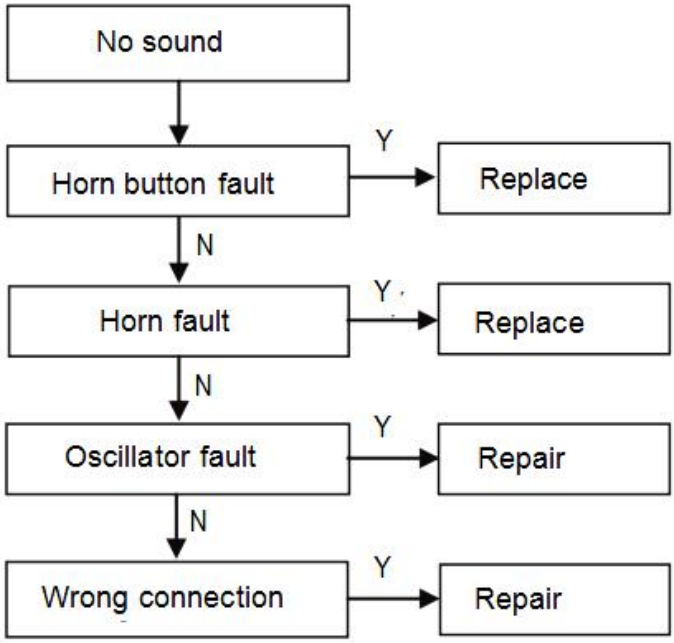
MAINTENANCE PROCEDURE WHEN BATTERY CAN'T BE CHARGED OR CHARGED COMPLETELY



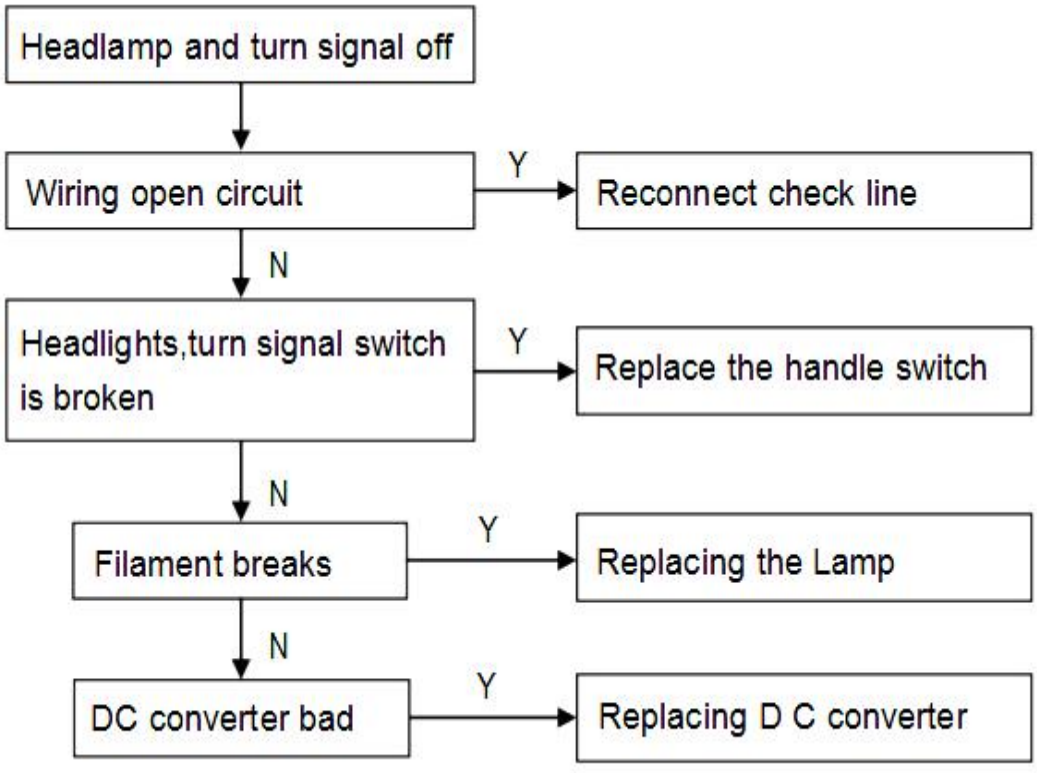
MAINTENANCE PROCEDURE FOR NO ELECTRICITY OF BATTERY



MAINTENANCE PROCEDURE WHEN HORN DOESN'T SOUND



MAINTENANCE PROCEDURE WHEN HEADLAMP OR TURN SIGNAL OFF



FAULTS AND TROUBLE- SHOOTING

Fault	Reason	Troubleshooting
Motor stops running and instrument panel signal off	1. Breaker fault	Test breaker or replace it
	2. Power lock fault	Replace the power lcok
	3. Bad battery connection	Refasten the connection of battery
	4. Bad connection of cable	Adjust or replace connection
	5. Expiration of battery	Replace battery
	6. Open circuit of single battery	Replace battery
Motor stops running and instrument panel signal on	1. No voltage at input end of controller	Check and repair connection between power supply and controller
	2. No supply from controller to motor	Controller fault, replace it
	3. Speed handle damage	Replace speed handle
	4. Brake power off switch damage	Replace brake switch
	5. Controller fault	Replace controller
	6. Brake lever lead breaks	Reconnect or replace lead
	7. Motor fault	Repair or replace the motor
	8. No output voltage of controller	Replace controller
Motor stops running	1. Breakdown of power field-effect transistor of the controller	Repair or replace controller
	2. Fault of speed handle	Repair or replace speed handle
	3. Wrong connection of speed handle	Repair speed handle or reconnect the lead
Slow running of motor	1. Speed limit plug unplugged	Unplug the plug
	2. Motor fault	Repair or replace motor
	3. Battery aging, insufficient cahrging or can`t be charged	See on page 19. (Maintenance procedure when battery can't be charged or charged completely)
	4. Speed handle fault	Repair or replace speed handle
	5. Controller fault	Repair or replace controller
	6. Mechanical fault (rear braking too tight)	Check and repair mechanical fault (adjust braking)
Power failure	1. Controller damgae	Replace controller
	2. Short circuit	Handle insulation
Motor runs and stops every now and then	1. low voltage of battery	Charge the battery completely
	2. expiration of battery	Replace the battery
	3. bad connection of battery lead	Retighten lead or replace
	4. bad connection or damage of breaker	Retighten lead or replace the breaker
	5. damage of power lock or bad connection	Replace power lock
	6. fault of brake power switch	Replace brake power switch or lead
	7. break of speed handle lead	Replace handle or lead
	8. bad component connection	Readjust component connection
	9. controller fault	Repair or replace controller
	10. motor fault	Repair or replace motor
Overload or abnormal of motor noise	1. Wearing of motor bearing	Replace bearing
	2. Bad wearing of motor bearing	Replace motor or bearing
	3. Failling off of motor magnet	Replace motor

Fault	Reason	Troubleshooting
No electricity of battery	1. Power lock open, power consumption of controller and instrument panel.	Charging
	2. Bad insulation of power line	Chek and repair the line
	3. Inconsistent of battery terminal voltage, self discharging of battery	Repair or replace battery
	4. Over long placement of battery	Fully charge before a longe time of replacement
Damage once charged	1. Wrong battery connection	Check and repair lead
	2. Wrong connection of plug or socket	Check and repair
	3. Short circuit of socket lead	Check and repair short circuit and replace socket
Quick decreasing of voltage after replacing a new battery	1. Inconsistence between instrument and panel and battery	Check and repair instrument panel
	2. Short circuit or bad connection	Check and repair short circuit and retighten lead
	3. Large operation current for motor	Repair or replace motor
	4. Low battery capacity	Maintenance charging for battery

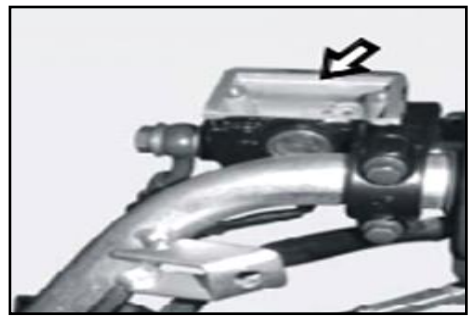
PERIODIC MAINTENANCE

Brake system

Inspect brake system after initial 1000km (3 month) and every 2 000km (10 month).

Brake fluid level inspection

Stand the vehicle vertically and keep handlebar forward. Compare the level of brake fluid in reservoir with the mark on screen.

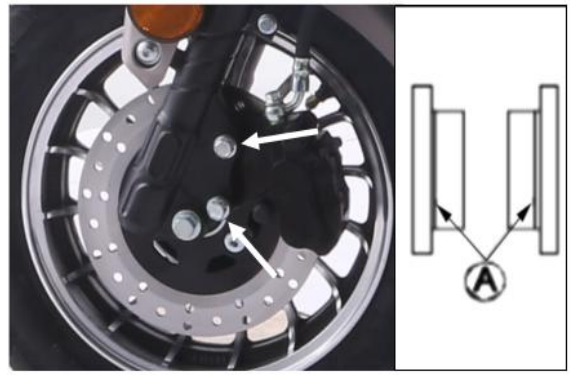


⚠ WARNING

Only glycol based hydraulic brake fluid is equipped in brake system of this vehicle. Don't use or mix with silicon or fossil oil based fluid when refilling, otherwise the brake system will be damaged.
Don't use long-stocking or unsealed brake fluid. Any brake fluid leakage will be dangerous in running. Ensure hose and sealing not damaged or leaked.

Caliper pad replacement

Check the wearing terrain on caliper pad, and replace the pad if friction surface reach the sign "A" of wear.



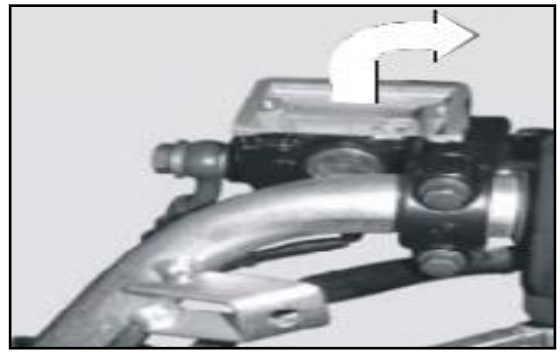
Caliper pad replacement

Remove brake caliper① ASSY.

Remove brake pad② from caliper ASSY.

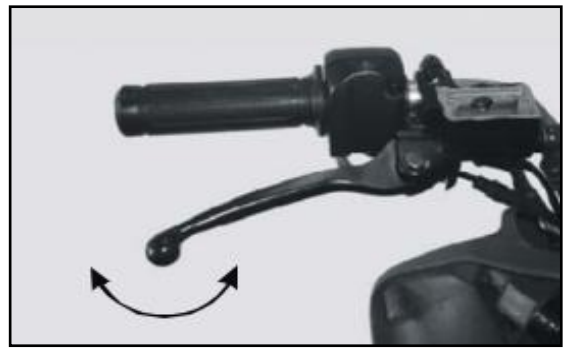
Brake fluid replacement

Stand the vehicleon horizontal ground with handlebar in verticality.Remove handlebar front cover.Remove the cap and diaphragm of fluid reservoir. Pump out previous brake fluid Refill with fresh brake fluid.



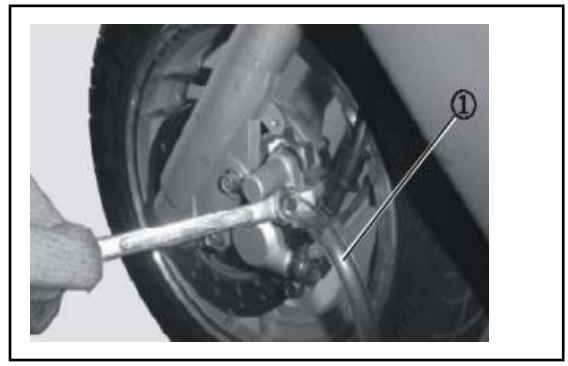
Connect the bleed valve and other container by sufficient hose. Loosen the bleed valve and pump out all previous brake fluid by forcing brake lever. After closing bleed valve and disconnecting drain hose, refill with fresh brake fluid till its level reach the upper limit on inspection screen.

Specified torque for bleedingvalve: 7.5N.m.



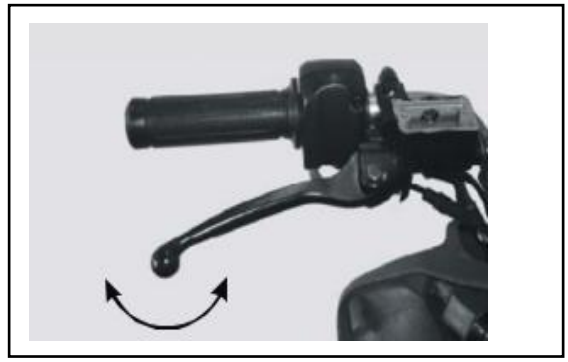
Bleeding out air from brake system

Connect the bleed valve and other container by transparent hose. Rapidly press and release the brake lever several times, then press the lever firmly. Loosen the bleed valve for 1/4 turn to allow brake fluid drain out. Due to this operation the brake lever will release and touch with handlebar, then close the bleed valve.

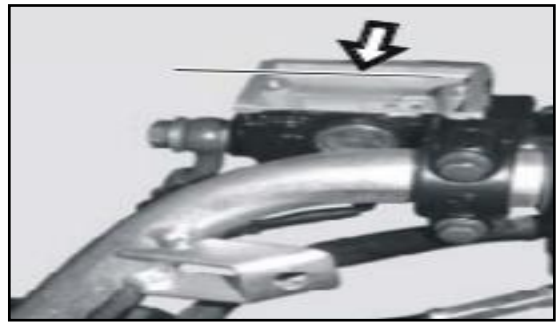


Close bleeding valve and tighten to specified torque, then remove the drain hose.

Specified torque: 7.5N.m



Refill brake fluid again to its reservoir to ensure fluid level above "UPPER" mark.

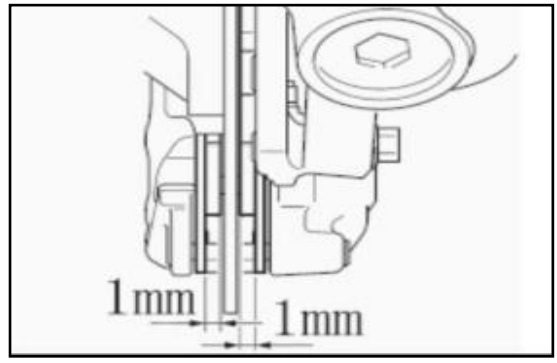


⚠ WARNING

Take care to deal with brake fluid because it can damage the parts of plastic, paint and rubber due to chemistry.

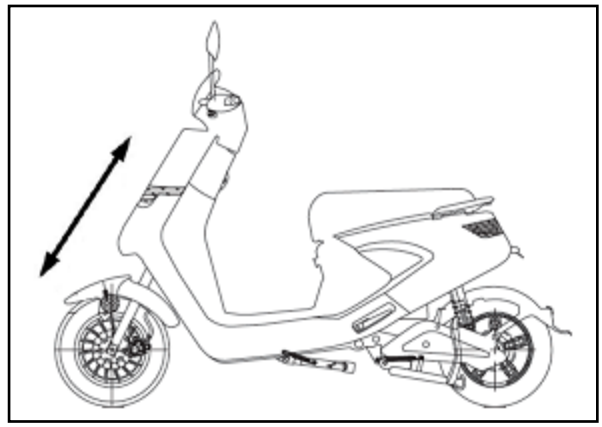
BRAKE PADS

The brake pads must be checked for wear at the intervals specified in the periodic maintenance and lubrication chart.



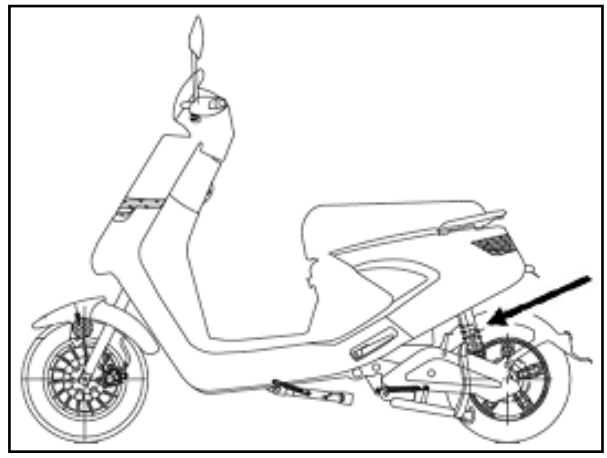
Front fork

Check the damper tub for leakage or scratch, replace the damaged parts if necessary.



Rear shock absorber

Shock absorber for oil leakage, and check engine mounting bracket for cushion wear. Replace the damaged parts if necessary.



Tire

Tire air pressure

The tire air pressure must be checked and adjusted on cold tires (i.e., when the temperature of the tires equals the ambient temperature). The tire air pressure must be adjusted in accordance with the riding condition. If you are not familiar to this, please have dealer for help.

Tire air pressure:
Front: 2.2 bar - 2.3 bar
Rear: 2.2 bar - 2.3 bar
Total weight of rider, passenger, cargo and accessories!

Maximum load*:
150kg
***Total weight of rider, passenger, car- go and accessories!**

NOTE

To maximize the performance, durability, and safe operation of your vehicle, note the following points regarding the specifed tires.

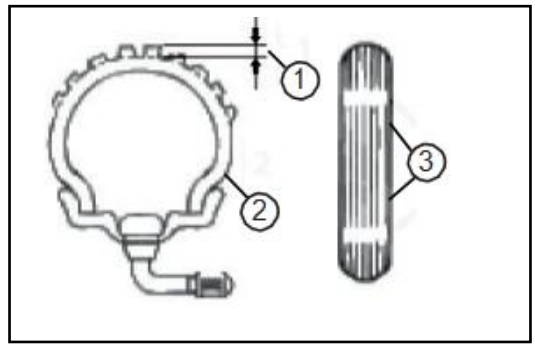
Tire inspection

The tires must be checked befo-re each ride. If a tire tread shows crosswise lines (minimum tread depth), if the tire has a nail or glass fragments in it, or if the sidewall is cracked, have a dealer replace the tire immediately.

1.Tire tread depth.

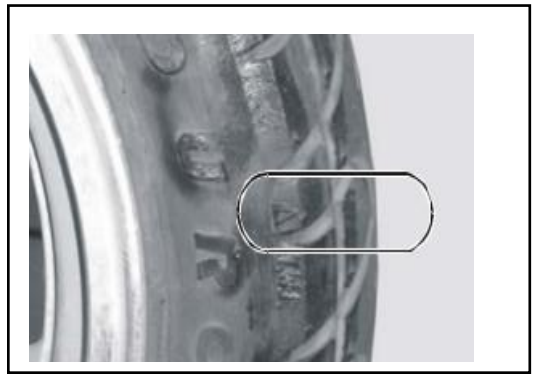
2.Tire sidewall.

3.Tire wear indicator.



Worn tires will affect ridding stability and cause accident. Check the tire surface by depth gauge, and replace with new tires if its groove depth is less than specified value.

Specified depth:Front and rear: > 1.6 mm



RIMS

To maximize the performance, durability, and safe operation of your motor- cycle, note the following points regarding the specified wheels.

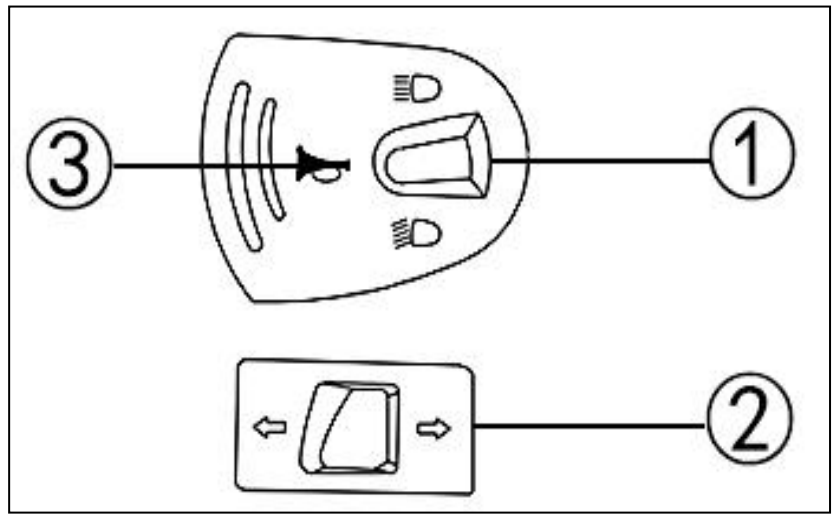
1. The wheel rims should be checked for cracks, bends or war page before each ride. If any damage is found, have a dealer 2.replace the wheel. Do not attempt even the smallest repair to the wheel. A deformed or cracked

The wheel should be balanced whenever either the tire or wheel has been changed or replaced. An unbalanced wheel can 3.result in poor performance, adverse handling characteristics, and a shortened tire life.

Ride at moderate speeds after changing a tire since the tire surface must first be "broken in" for it to develop its optimal characteristics.

Dimensions Tires / Rims
Front Rim: MT2.15*10 Tire: 3.00-10
Rear Rim: MT2.15*10 or 2.15*10
Tire: 3.00-10

HANDLEBAR SWITCHES - LEFT



1. High / Low beam switch
2. Turn signal switch
3. Horn switch

1. High / Low beam switch

Set this switch to for the high beam and to for the low beam.

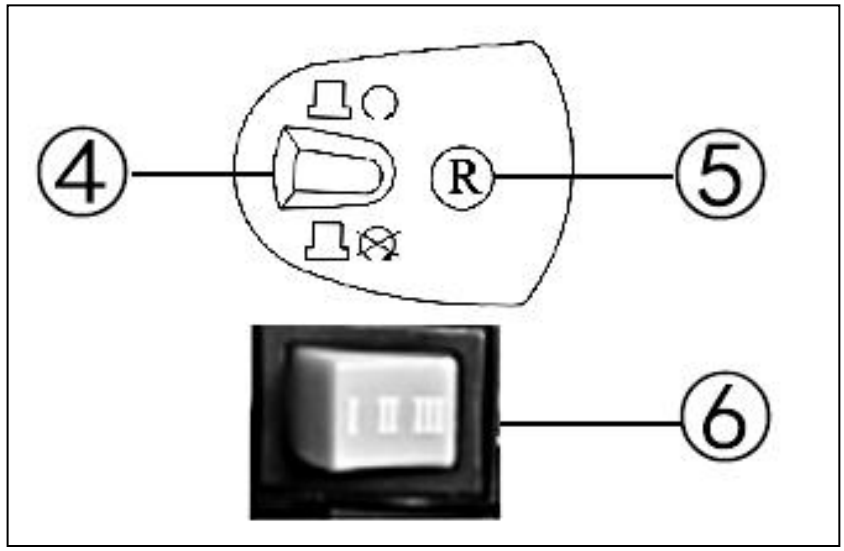
2. Turn signal switch

To signal a right-hand turn, push this switch to . To signal a left-hand turn, push this switch to . When released the switch returns to the center position. To cancel the turn signal lights, push the switch in after it has returned to the center position.

3. Horn switch

Press this switch to sound the horn.

HANDLEBAR SWITCHES - RIGHT



4. Safety switch
5. Electric start switch / Reverse switch
6.Gear Change

4. Safety switch

If the safety switch is activated , the engine can be started. if the switch is Deactivated the engine can not be Started.

5.Electric start switch / Reverse switch

After turning on the main switch, push this switch once to activate the engine. The vehicle is ready to drive.

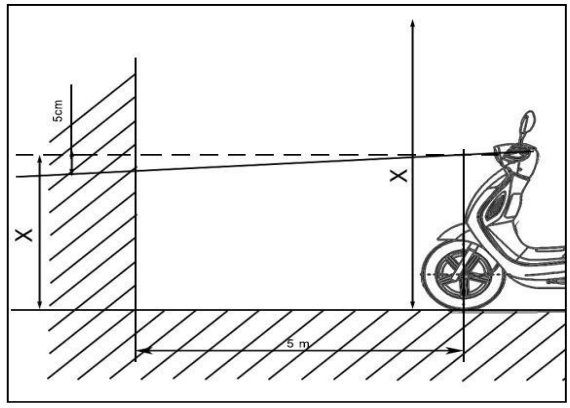
6. Gear Change

First gear：climbing mode.
Second gear：economic mode.
Third gear：speed mode.

NOTE

Before starting the vehicle check the notes in the user manual.

HEADLIGHT AIMING INSPECTION

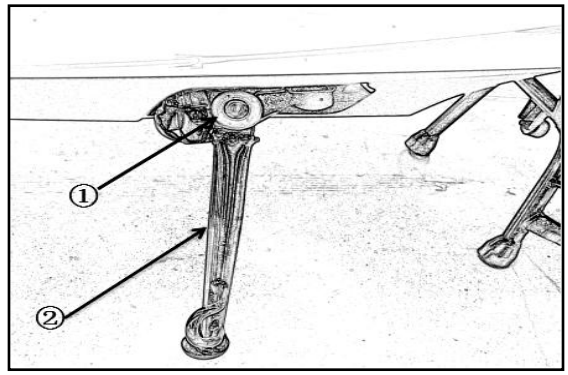


7.Place the vehicle at a distance of 5 meters in front of a wall.The vehicle must be placed horizontally.

8.Measure the distance from the ground to the middle of the headlight bulb (X).

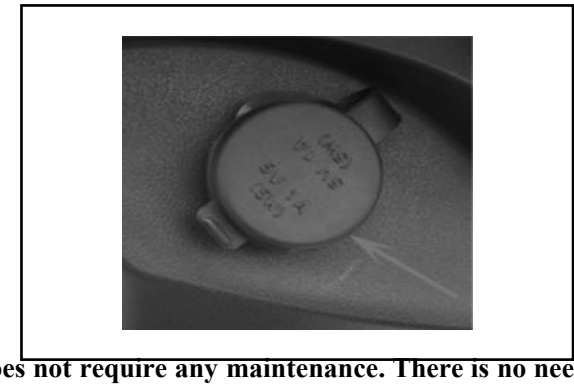
9. Transfer this value to the wall and mark it with an X.Then make a second X 5 centimeter below the first X

SIDE STAND FLAMEOUT SWITCH



In order to safely use the motorcycle, the side braces are fitted with side stand switch flameout 1, which will be turned off at 2. Please take back the side support to start the car when it is used again.

USB



This motor is equipped with USB interface USB output voltage for DC5V can charge your mobile device.

⚠ WARNING

This model is equipped with a sealed type (MF) battery,which does not require any maintenance. There is no need to check the electrolyte or to add distilled water.

•Do not remove the battery, this can be dangerous, the battery permanently damaged. If a battery do not work correct, have a dealer to check it.

•If the battery is not full after charging for over 24 hours, please stop charging and contact the after-sales service.

•To maximize the battery life, users are advised to keep the battery percentage within the range of 20% to 80% as practicably as possible. Please use the accelerator handlebar gently in a normal ride.

•Do not keep the battery at an ambient temperature over 40° C so as to prevent irreversible capacity loss of the battery.

•At low temperatures, the lithium battery capacity will lose at varying degrees. To be more specific, the usable capacity at -10° C is 70%, that at 0° C 85% and that at 25° C 100%.

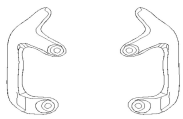
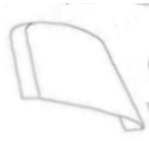
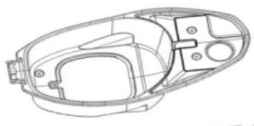
•The best battery capacity for storage is 80%. Storage of battery less than 10% full or more than 90% full over a long period of time will cause irreversible capacity loss of the battery.

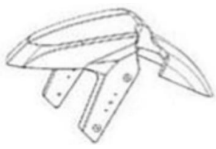
•For storage over a long period of time, please keep the battery at an ambient temperature from -20° C to 40° C, and have a charge and a discharge at least once a month so as to minimize battery capacity loss in storage.

•Do not keep the battery in places with the risk of falling. That's because falling may cause uncontrollable internal damage to the battery and may lead to leakage, overheat, smoking, fire or explosion.

FRAME BODY

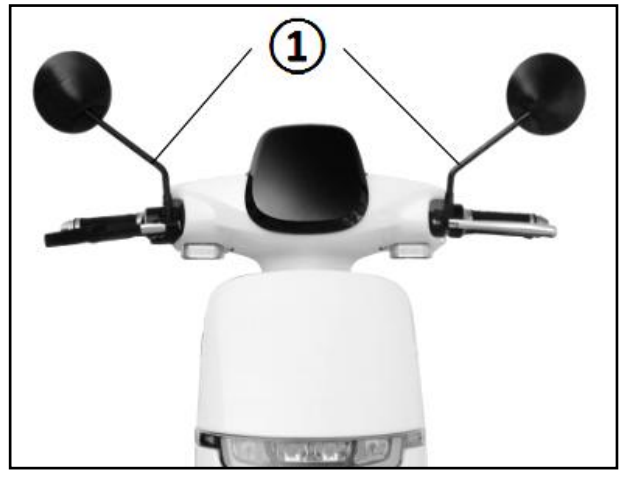
Outer Parts

Order number	photograph	name	order number	photograph	name
1		Rear view mirror	4		Battery case cover
2		Before the instrument cover	5		The front panel
3		Rear carrier	6		Before the clay
7		Handlebar cover	12		Side cover L&R
8		Windshield	13		Seat cushion
9		Small cover	14		Body cove
10		Luggage box	15		Left decorative cover

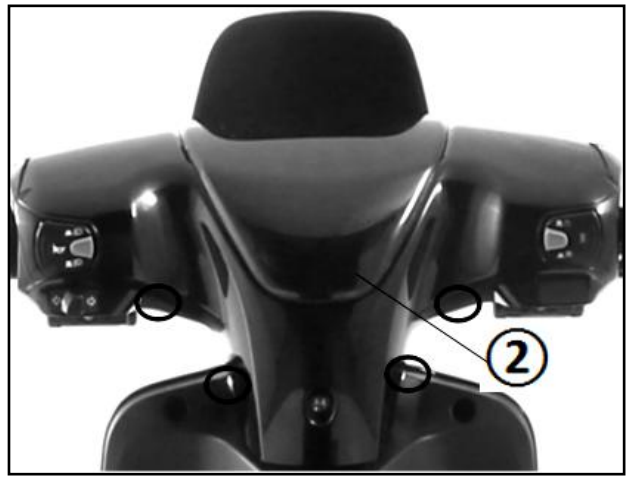
11		Right decorative cover	16		Front fender
17		Box luggage assy	21		Helmet holder
18		Floor panel	22		Fender tire
19		Luggage box,inner cover	23		Front hut inner
20		Number on the cover	24		Storage compartment
25		The front fender	29		Back of the plate

Disassembly

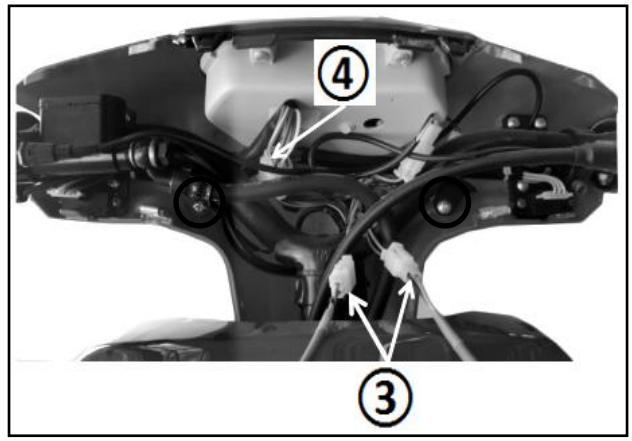
Remove mirror RH & LH①.



Remove front handlebar cover②.

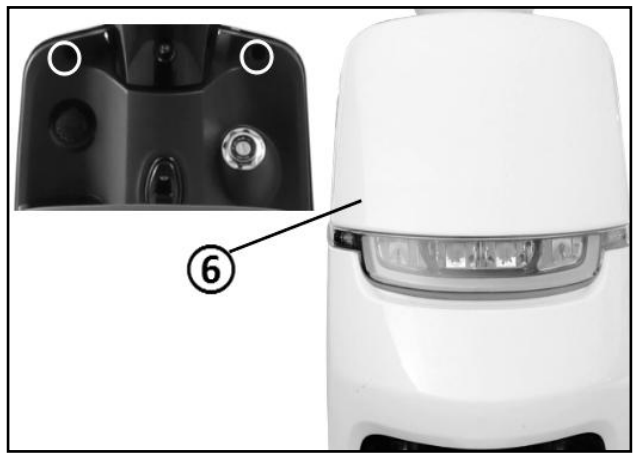


Disconnect turn lamp cable③ and speedmeter cable④.

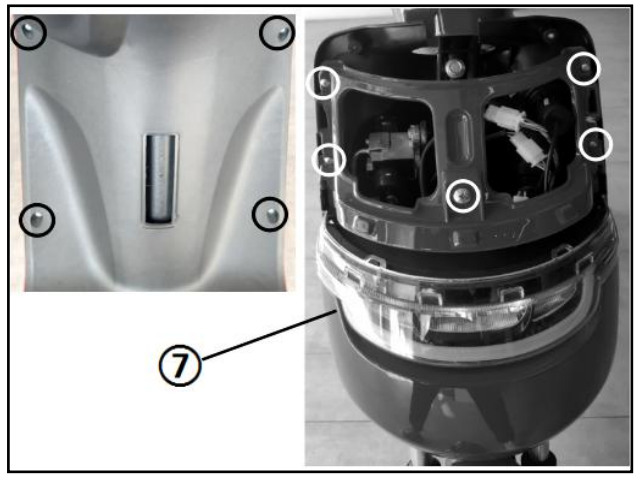


Remove rear handlebar cover⑤.

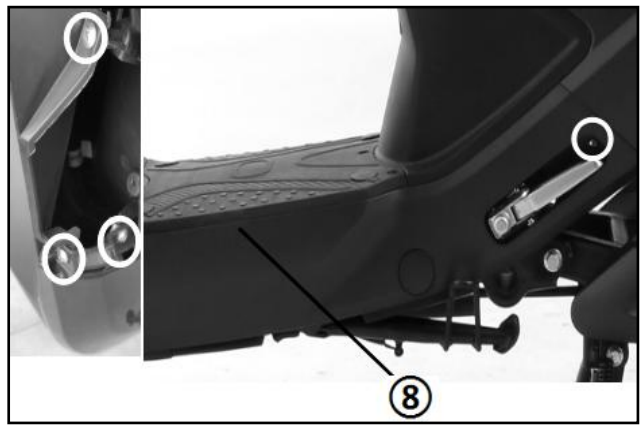
Remove small cover⑥.



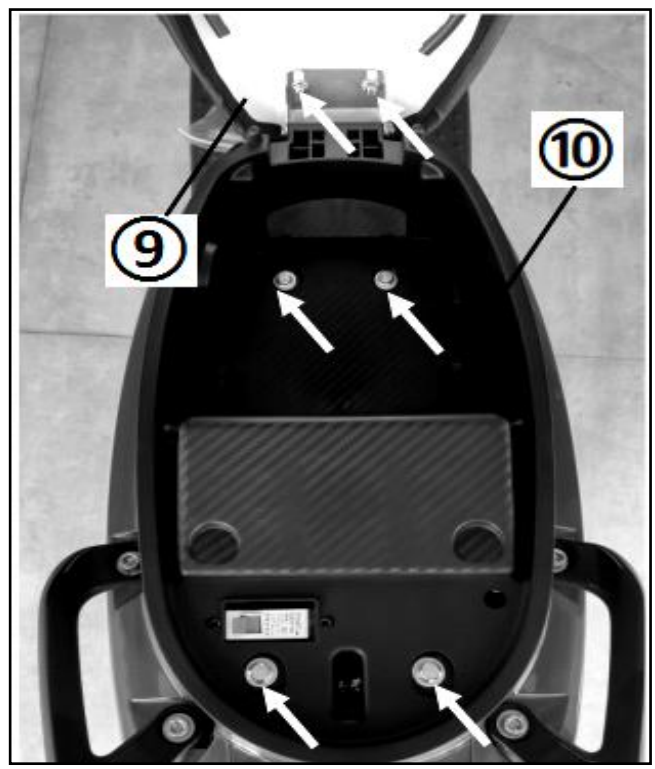
Remove The front panel⑦.



Remove side cover L&R⑧.

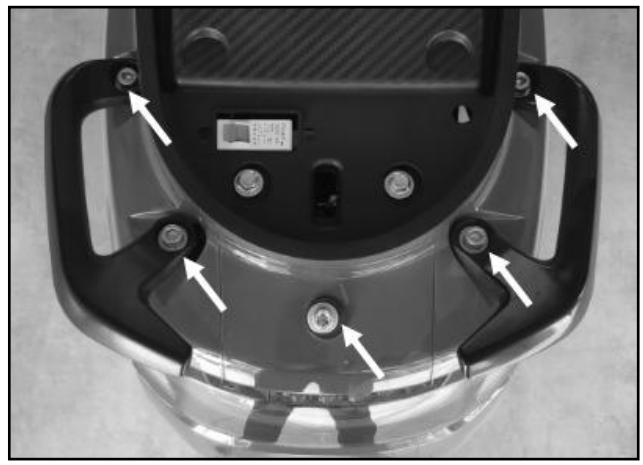


Remove side cover Storage compartment⑨、⑩.



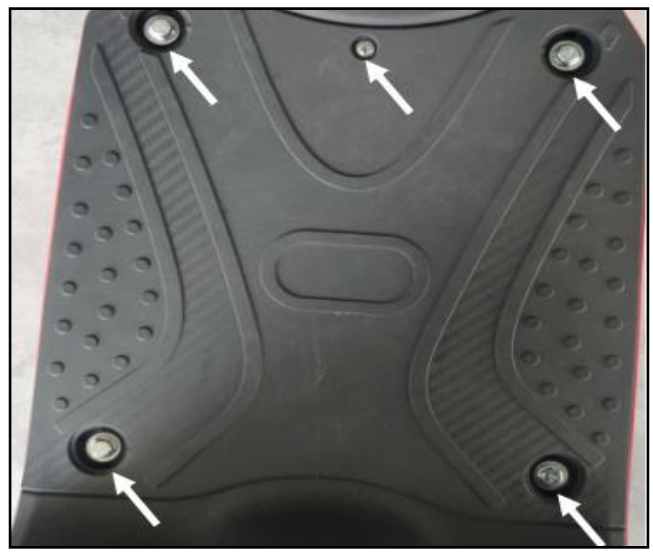
Remove Body cove.

Remove Rear carrier.



Remove Helmet holder and Box luggage assy.

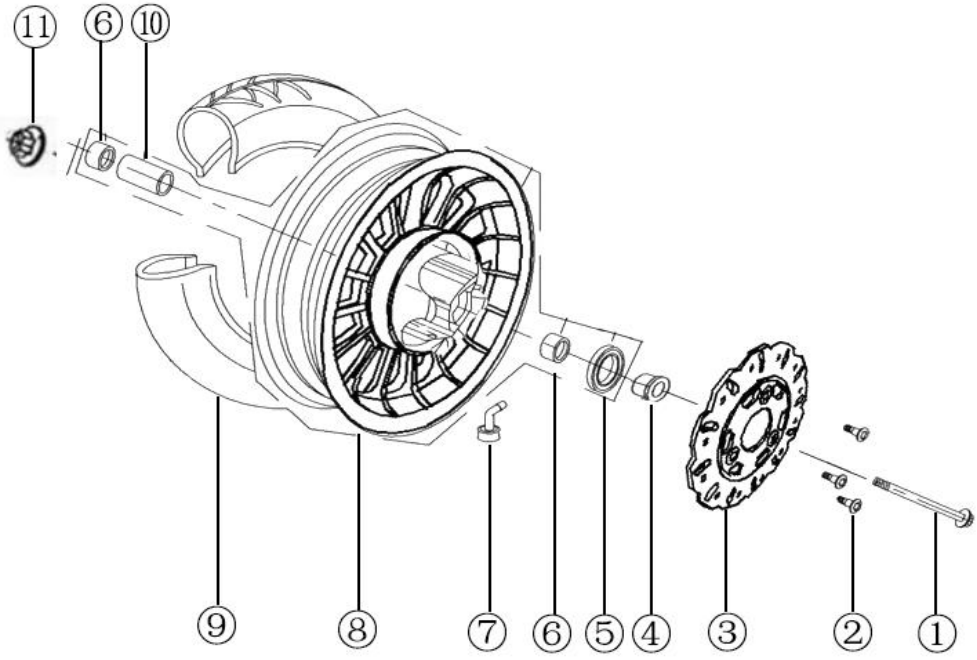
Remove Floor panel.



Remove Front hut inner.

Reinstall in the reverse order of disassembly.

EXPLODED VIEW/ PART LOCATION - FRONT WHEELPART LIST - FRONT WHEEL

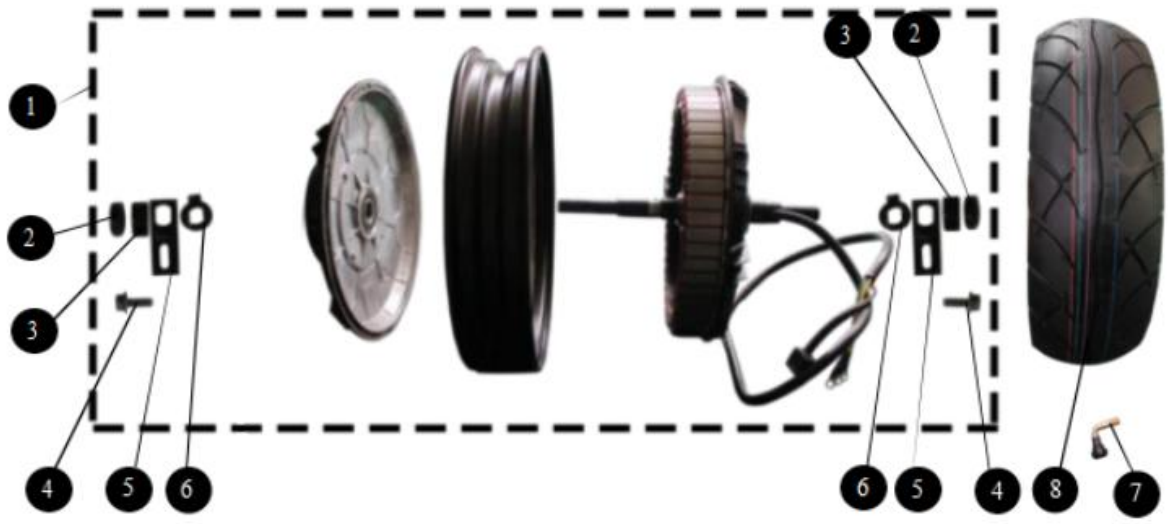


1.AXLE FR WHEEL
2.BOLR DISK
3.DISK FR BRAKE
4.COLLAR FR WHEEL SIDE
5.DUST SEAL
6.BEARING 6201 LLU
7.VALVE(PVR-70)&CAP(E)
8.WHEEL FR CAST
9.TIRE ASSY
10.COLLAR FR WHEEL SIDE
11.NUT U FLANGE

TORQUE LIST

PART NO.	TORQUE
1,9	68-85Nm

EXPLODED VIEW/ PART LOCATION - REAR WHEEL



EXPLODED VIEW/ PART LOCATION - REAR WHEE

PART LIST - REAR WHEEL

1. Motor with rear rim
2.Nut M16×1.5—8
3. Nut M16×1.5—12
4.Bolt M6×16
5.Bracket
6. Rear brake assy complete
7.Tyre valve for screws
8.Tyre

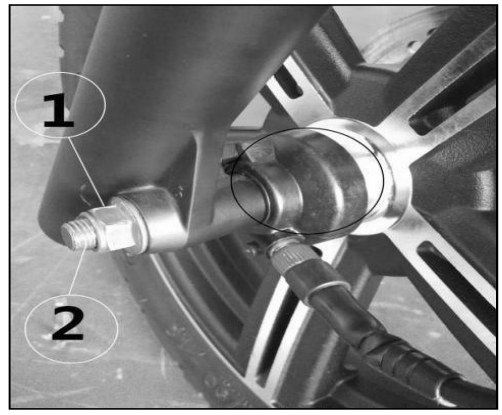
TORQUE LIST

PART NO.	TORQUE
1	100-113Nm

FAILURE	CAUSE	TO DO
It's hard to move the wheels	One wheel bearing is damaged	Replace the bearing
	The tire air pressure is to low	Adjust the air pressure
Wheel unbalanced	Rim damaged	Replace the rim
	Tire worn	Replace the tire or Balance the wheel
Abnormal or scratching noise	Wheelbearing loosened or worn	Replace the bearing
	Speedometer drive defect	Replace the speedometer drive

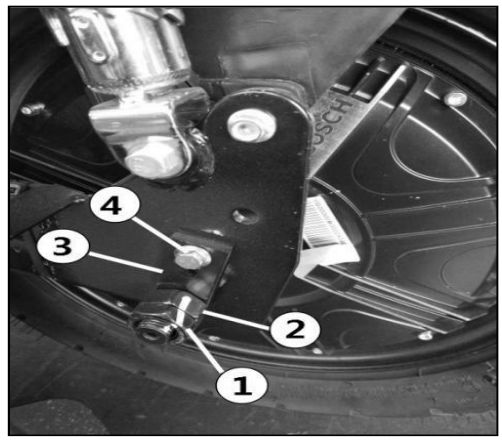
TROUBLESHOOTING - FRONT/ REAR WHEEL

FRONT WHEEL REPLACEMENT



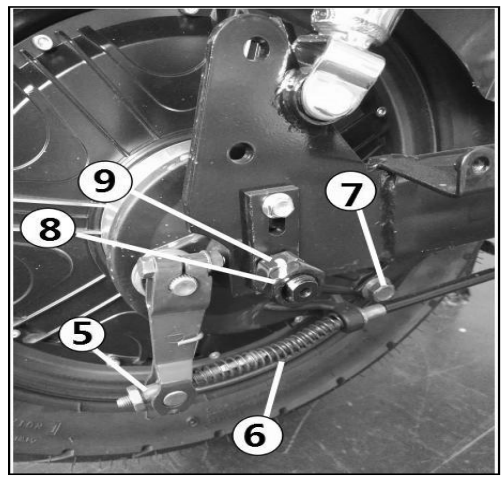
1.Place an appropriate supporting stand under the engine In order to raise the front wheel up.
2.Remove the nut (1) to pull out the axle (2).
3.Remove the front wheel.
4.Reassemble in reverse order.

REAR WHEEL REPLACEMENT

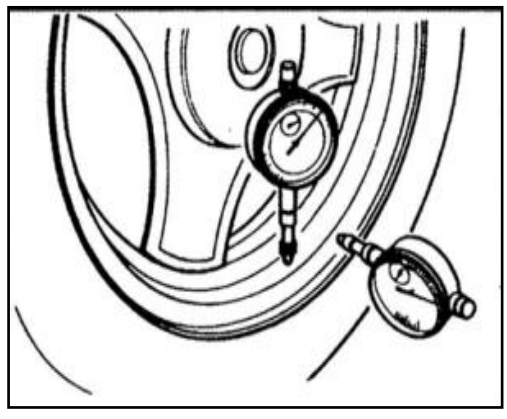


Left side
1.Remove the swinging arm cover left.
2.Remove the fixing nut (1) and the nut (2).
3.Remove the bolt (3) and the adjustment bracket (4).

Right side
4. Remove the swinging arm cover right.
5.Remove the rear brake adjustment nut (5) and thread out the brake cable (6).
6.Remove the nut (7) and the bolt
7.Remove the fixing (8) nut and the nut (9).
8.Pull out the rear wheel.
9.Reassemble in reverse order.

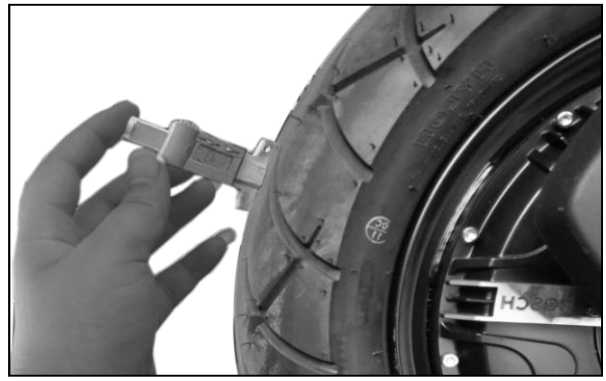


WHEELS (RIMS)



The wheel rims should be checked for cracks, bends. If any damage is found replace the rim. Do not attempt even the smallest repair of the wheel. The wheel should be balanced whenever either the tire or the rim has been changed or replaced. An unbalanced wheel can result in poor performance, adverse handling characters, and a shortened tire life.

TIRES



The tires must be checked during each workshop visit. If a tire tread shows crosswise lines (minimum tread depth), the tire has a fragments in it, the sidewall is cracked then replace the tire immediately.Operating the Motorcycle with excessively worn tires will decrease the riding stability and can lead to loss of control.Please replace the excessive worn tires immediately.

NOTE

Allowable tread limit X : Technically - 1,6 mm
Legal value may be different!

WHEEL BEARING WHEEL AXLE DAMAGE INSPECTION

The wheels rotate with difficulties .The wheel-axle Bearing or the gear seats are in failure.To find the error, the wheel must be removed.

1.Loose the mounting bolt (1) of the braking cylinder. Remove components (2) of the braking cylinder.

2.Place an appropriate supporting stand under the engine in order to raise the front wheel up.

3.Loose the mounting bolt (3) which fixing the axle of the front wheel in order to remove the front wheel and its axle.

4.Remove the speedometer gear seat.

5.Remove axle sheath,oil seal,axle (6200-2RS), alxe insulating sheath axle (6200-2RS).

6.Reassemble in reverse order.

FRONT WHEEL BEARING INSPECTION

1.Examine the rolling condition of the bearing.

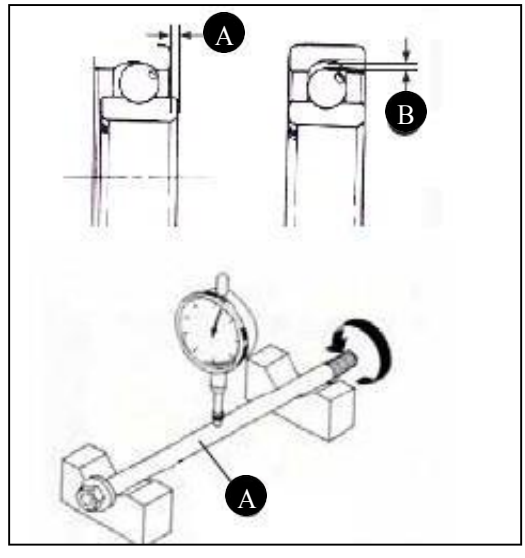
2.If it doesn't roll, or the bearing is damaged or loosened, It should be replaced.

Allowable limit (A): 2 mm Allowable limit (B): 2 mm

INSPECT BENDING OF THE WHEEL SPINDLE

1. Put to wheel axle on a V-shape seat and use dial Indicator to measure its eccentricity.

Allowable limit (A): 2 mm

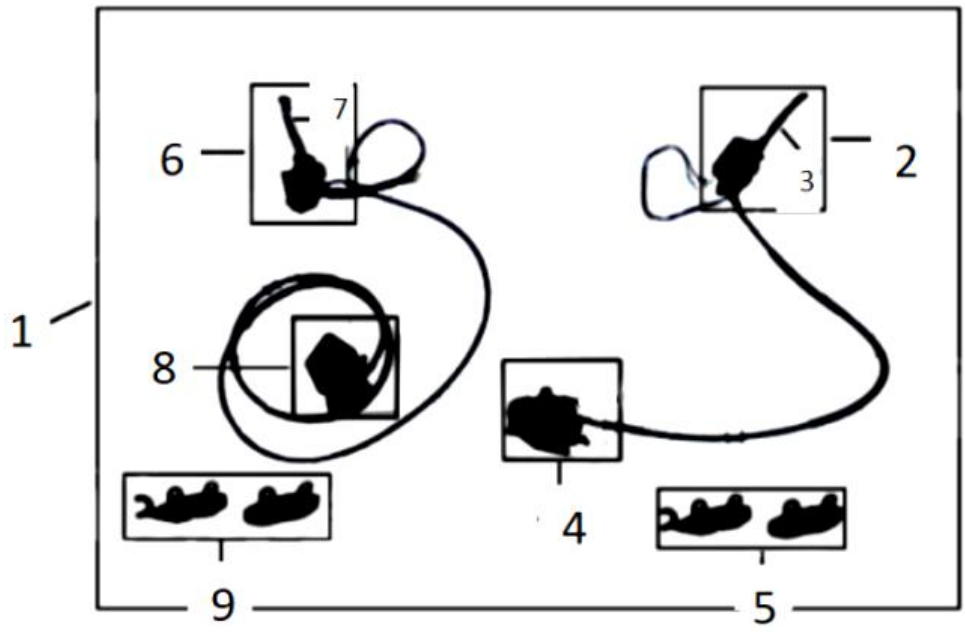


INSPECT BENDING OF THE WHEEL SPINDLE

1. Put to wheel axle on a V-shape seat and use dial Indicator to measure its eccentricity.

Allowable limit (A): 2 mm

PART LOCATION - FRONT BRAKE



PART LIST - FRONT BRAKE

1. **Disc brake assembly**
2. **Pump on the front disc brake**
3. **Front brake lever**
4. **Front disc brake pump**
5. **Front disc brake friction plate**
6. **Rear disc brake pump**
7. **Rear brake lever**
8. **Rear disc brake pump**
9. **Rear disc brake friction play**

TORQUE LIST

PART NO.	TORQUE
8	40-50Nm

⚠ WARNING

Only Grade DOT4 glycol based hydraulic brake fluid is equipped in brake system of this vehicle.
Don't use or mix with silicon or fossil oil based fluid when refilling, otherwise the brake system will be damaged.
Keep the container properly sealed and away from reaching of child when stocking brake fluid. Don't use long-stocking or unsealed brake fluid.
Take care to avoid any dirt or dust interring the brake system when refilling brake fluid. Use fresh brake fluid only to wash the parts of brake system.
Dirty brake disk and pad will affect brake efficiency. Replace or clean it by neutral abstergen.

SPECIFICATION - FRONT/ REAR BRAKE

ITEM	STANDARD VALUE [mm]	ALLOWABLE LIMIT [mm]
Thickness of front brake disc	3.5	3.0
Thickness of front brake pads	7.0	6.0
Diameter of front brake disc	220	——
Thickness of rear brake disc	3.5	3.0
Thickness of rear brake pads	7.0	6.0
Diameter of rear brake disc	190	——

TROUBLESHOOTING - FRONT/ REAR BRAKE

FAILURE	CAUSE	TO DO
Poor brake performance	Unfavourable brake adjustment	Adjust the brake system
	Brake pads worn	Replace the brake pads
	Brake pads installed improperly	Install the brake pads proper
	Brake pads or brake disc contaminated	Clean or replace the brake pads and clean the brake disc/ drum
	Air in the front brake hose	Bleed the brake hose
	Gasket(s) leaky	Replace affected gasket
Strange sound during braking	Brake pads glazed	Replace the brake pads
	Burrs	Grind away burr
	Brake pads or brake disc contaminated	Clean or replace the brake pads and clean the brake disc/ drum
Pulsing during braking	Brake disc worn	Replace brake disc
	Brake drum worn	Replace the rear rim

FRONT BRAKE LEVER

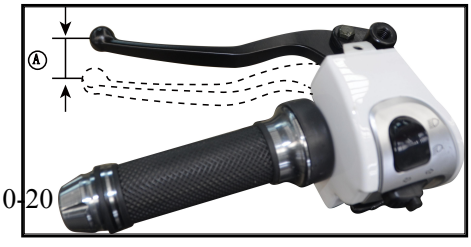
The front brake lever is located on the right side of the handlebar.

NOTE

This lever operated by hydraulic the front brake. It is not
Possible to adjust the free-play of the front brake lever.
When the brake lever feels spongy or the brake performance.

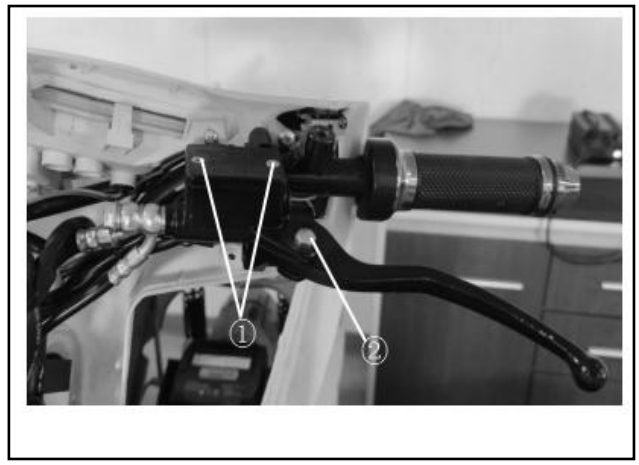
REAR BRAKE LEVER

The rear brake lever is located on the left side of the handlebar.
This lever operated by steel cable the rear brake. When the brake lever feels spongy, the brake performance is poor or the free play (X) is not correct the rear brake system have to be adjusted.Allowable limit (X): 10-20



FRONT BRAKE LEVER/ MASTER BRAKE CYLINDER REPLACEMENT

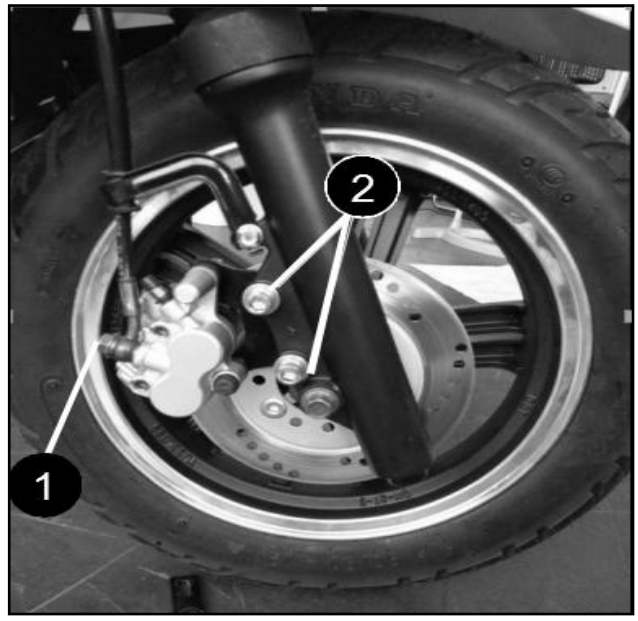
When the performance of the front brake is poor it could be possible that the plunger module gaskets are defect.



1.Remove the handlebar covers.
2.Drain the brake fluid from the hydraulic brake system.
3.Remove the two bolts attaching the brake master cylinder (1).
4.Remove the brake master cylinder.
5.Remove the brake lever bolt (2) and the brake lever.
6.Replace defect parts and assemble in reversed order.
7.Refill the brake system.

NOTE

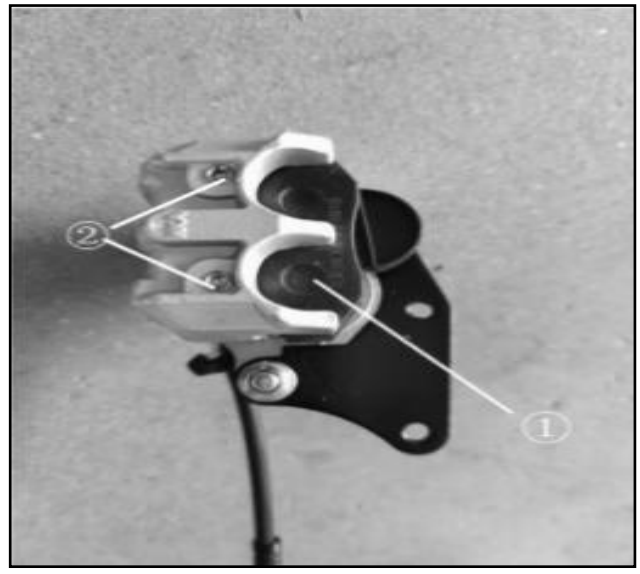
The plunger module is not available separately.



FRONT BRAKE CALLIPER REPLACEMENT

When the performance of the front brake is poor it could be possible that the gaskets of the front brake calliper defect or the brake pads are worn.

1.Drain the brake fluid the hydraulic brake system.
2.Remove the banjo bolt (1) from the master brake cylinder.
3.Remove the two bolts (2) attaching the brake calliper.
4.Replace the brake calliper.
5.Reassemble in reverse order.
6.Refill the brake system.



FRONT BRAKE PADS REPLACEMENT

1.Remove the two bolts (2) attaching the brake calliper.
2.Remove the two bolts to remove the brake pads (1) .

NOTE

Replace the brake pads always in pair.
3.Reassemble in reverse order.

BRAKE PAD WEAR INSPECTION

Reduced braking efficiency caused by worn brake pads. Change worn brake pads immediately. Always replace the brake pads in pair.

BRAKE DISC INSPECTION

Check the thickness of the front disc (1) at several places on the Disc to see if it confirms to measurement.

BRAKE DRUM INSPECTION

Check the inner diameter of the brake drum (1) at several places on the drum to see if it confirms to measurement.

BRAKE FLUID

⚠ WARNING

1.Never use dirty or unspecified brake fluid or mix different Brake fluid because it will damage the brake system.
2.Brake fluid spilled on brake pads or brake disk will reduce the braking effect. Clean the brake pads and brake disk with a high quality brake degreaser.
3.When servicing the brake system, use shop towels to cover plastic parts and coated surfaces to avoid damage caused by splash of brake fluid.
4.Do not allow dust or water to enter the brake system during refilling.
5.Brake fluid should be replaced at least every 2 years.

SPECIFICATION - FRONT BRAKE

Brake fluid type	CASTROL SUPER DISK BRAK E FLUID DOT 4
Brake fluid boiling temperature	> 170 °C
Brake fluid water content	<3%

BRAKE HOSE

1.When the front brake hose is leaking, cracked or worn you must replace it.
Please consider that there is no need to remove the brake calliper when you need to replace the brake hose.
2.When the brake hose need to be replaced use only genuine parts.
3.For brake hose replacement

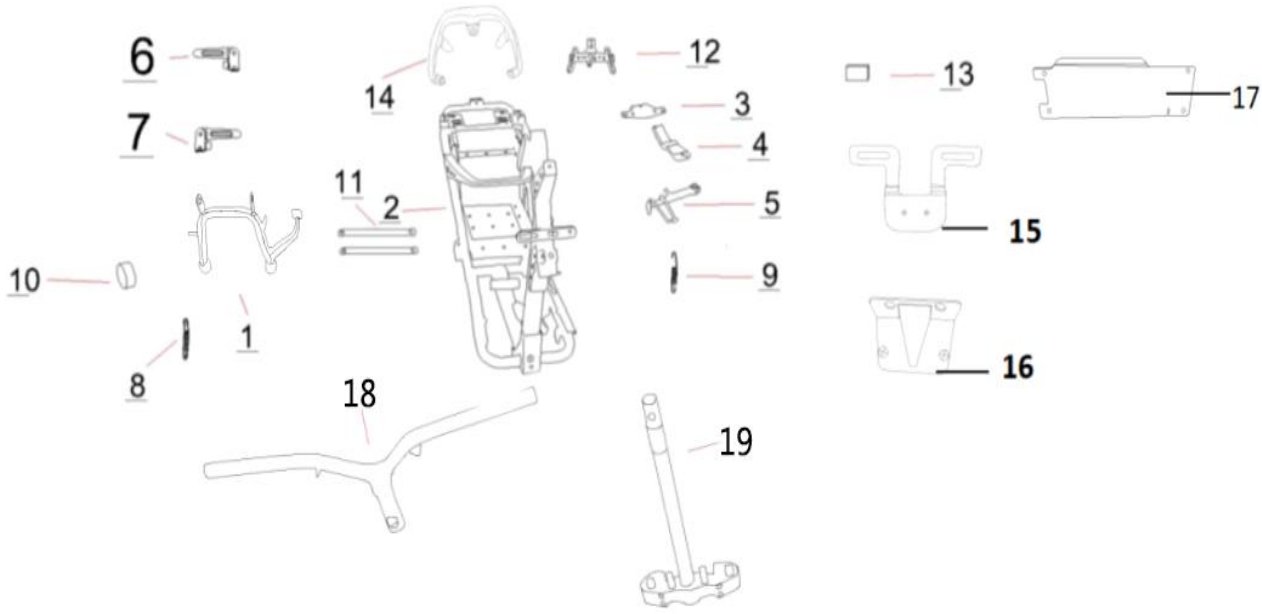
BRAKE CABLE

1.When the rear brake cable is cracked or worn you must replace it.

NOTE

Please consider that there is no need to remove the rear wheel when you need to replace the brake cable.
2.When the brake cable need to be replaced use only genuine parts.

CHASSIS



PART LIST -CHASSIS

1. **Double brace**
2. **Frame**
3. **Rear licence holder**
4. **Stand back**
5. **Single prop**
6. **Left pedal**
7. **Right pedal**
8. **Big last spring**
9. **Single last spring**
10. **Middle stay buffer block**
11. **Foot pedal holder**
12. **Lock plate bracket**
13. **Air switch cover plate**
14. **Left/Right armrest**
15. **Rear license plate bracket**
16. **Rear license plate light bracket**
17. **Battery lock cover**
18. **Handlebar**
19. **Bottom allied board**

NOTE

Component and connections marked with “＊” should be controlled and lubricated during each workshop visit of the vehicle. Use multipurpose grease for lubrication.

EXPLODED VIEW/ PART LOCATION -FRONT SUSPENSION

PART LIST - REAR WHEEL TORQUE LIST

1.Brake hose cable bracket
2.Bolt M6
3.Left fork leg
4.Right fork leg
5.Speedometer cable bracket
6.Fork shaft with triple tree
7.Bolt M12
8.Bearing fork assy
9.Fixing nut
10.Upper Bearing race-above (Adjustment nut)
11.Bearing set - above
12.Lower bearing race - above
13.Upper Bearing race - below
14.Bearing set - below
15.Lower bearing race - below

TORQUE LIST

PART NO.	TORQUE
7	55-62Nm

EXPLODED VIEW/ PART LOCATION - REAR SUSPENSION

PART LIST - REAR SUSPENSION

1.Left shock absorber

2.Right shock absorber

3.Bolt M10×1.25×40 (only left side illustrated)

5. Nut M10 (only left side is illustrated)

SPECIFICATION

ITEM	DESCRIPTION	VALUE
Rear shock absorber	Adjustable,spring loaded telescope unit (cartridge)	45mm max,travel

TORQUE LIST

PART NO.	TORQUE
NO.3/4	37-44Nm

SPECIAL TOOLS

There are no special tools recommended because defect suspension elements may not be dissembled. Always´s replace defect suspension elements.

TROUBLESHOOTING

FAILURE	CAUSE	TO DO
Vehicle difficult to steer	Insufficient tire pressure	Adjust the tire pressure
	Broken or bent fork leg	Replace the affected fork leg
	Uneven front shock absorbers	Control and adjust or replace affected fork leg
Soft front shock absorber	Weak shock spring	Replace the affected fork leg
	Insufficient damper oil	Replace the affected fork leg
Front shock absorber noise	Broken or bent fork leg	Replace the affected fork leg
	Loose fork fasteners	Tighten the fasteners
	Lack of lubrication	Replace the affected fork leg
Leaking fork leg	Gasket defect	Replace the affected fork leg
Weak rear shock absorber spring	Spring worn or broken	Replace the rear shock absorber
Leaking rear shock absorber	Gasket defect	Replace the rear shock absorber

NOTE

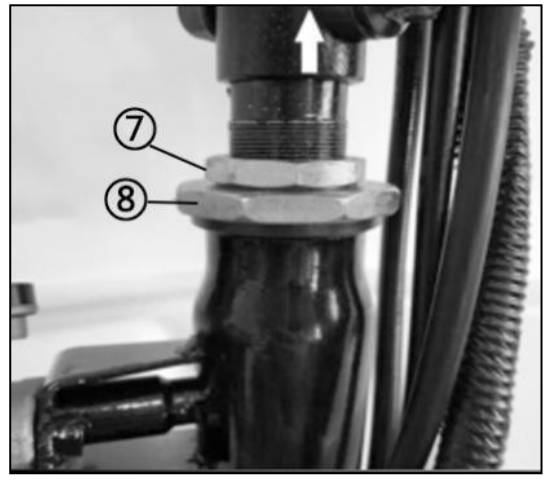
Before each repair of a defect suspension element consider the max.cross weight of the vehicle.

FRONT SUSPENSION REPLACEMENT

1.Place an appropriate supporting stand under the engine in order to raise the front wheel up.
2.Remove the front and rear handlebar cover (1), the front middle cover (2), the front mudguard (3), the front wheel (4) and the front brake calliper (5).

1.When you replace parts 1 and 2 it is recommended to disconnect all electric wires.
2.When you replace the front brake calliper you must Release the brake hose from the triple tree but it is not recommended to disconnect the brake hose from the front brake calliper or the master brake cylinder.
3.Remove the bolt (6), which connects the handlebar and the fork shaft.
4.Lift the handle bar up (arrow) and away.
5.Remove the fixing nut (7) and remove the adjustment nut.

6.Remove the bearing components. Details see chapter steering.
7.Remove the front fork.
8.Reassemble in reverse order.

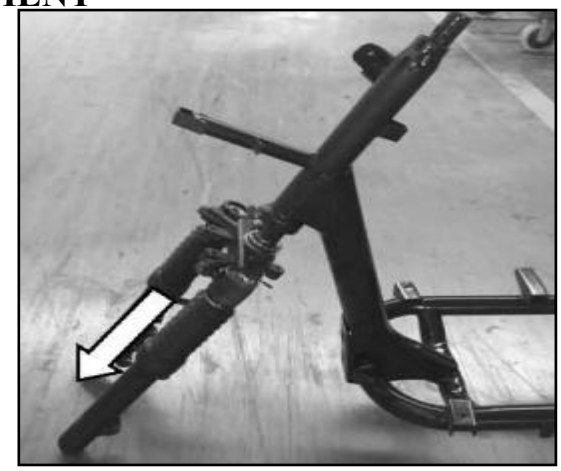


NOTE

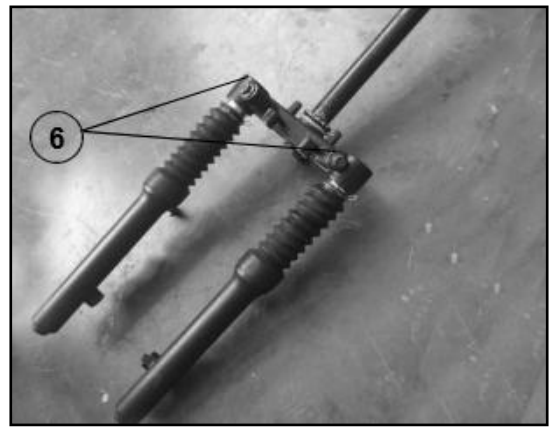
Before the assembling grease the bearing race and the front axle.

FRONT SUSPENSION FORK LEG REPLACEMENT

1.Place an appropriate supporting stand under the engine in order to raise the front wheel up.
2.Remove the front middle cover (2), the front mudguard (3), the front wheel (4) and the front brake calliper as shown in the picture (A) on the side before.

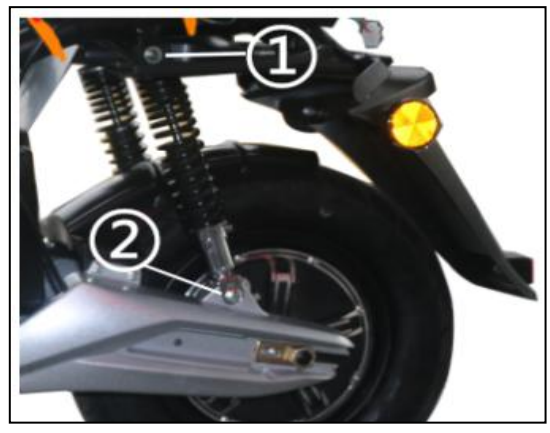


1.When you replace parts 1 and 2 it is recommended to disconnect all electric wires.
2.When you replace the front brake calliper you must Release the brake hose from the triple tree but it is not recommended to disconnect the brake hose from the front brake calliper or the master brake cylinder.
3.Remove the required bolt (6) and replace defect fork leg.
4.Reassemble in reverse order.



REAR SUSPENSION REPLACEMENT

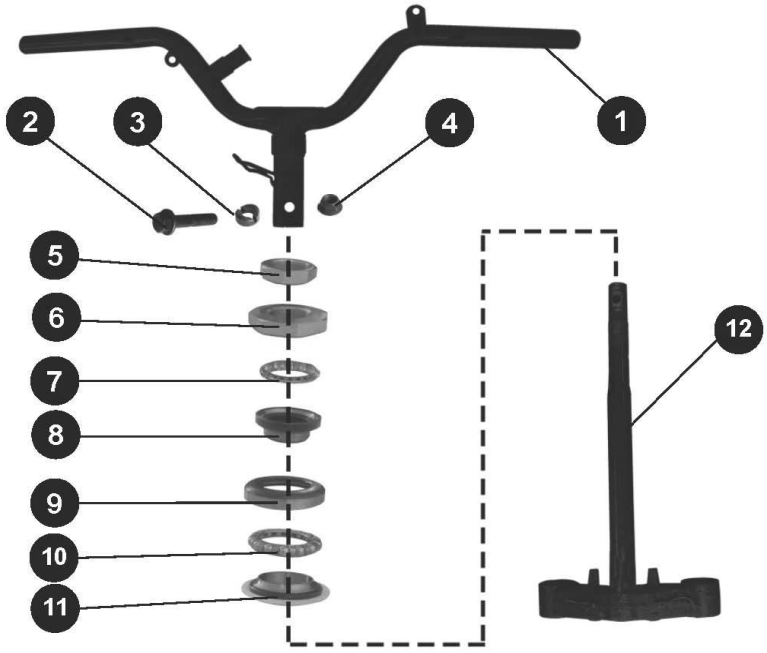
1.Place an appropriate supporting stand under the engine in order to raise the rear wheel up.
2.Remove the upper bolt M10 × 40 (1) and the lower bolt M8×1.25×35 (2)
3.Reassemble in reverse order.



NOTE

Only one side (left side) is illustrated.

EXPLODED VIEW - PART LOCATION / STEERING



PART LIST FRONT- STEERING

1.Handlebar
2.Bolt M10
3.Bush
4.Nut M10
5.Fixing nut
6.Upper Bearing race - above(Adjustment nut)
7.Bearing set - above
8.Lower bearing race - above
9.Upper Bearing race - below
10.Bearing set - below
11.Lower bearing race - below
12.Fork shaft with triple tree

TORQUE LIST

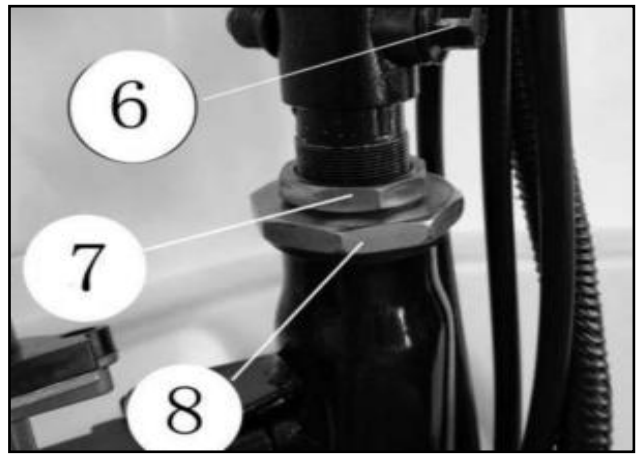
PART NO.	TORQUE
2,5	40-60Nm

TROUBLESHOOTING

FAILURE	CAUSE	TO DO
Vehicle difficult to steer	Steering bearing loose	Retighten the bearing
	Steering bearing worn	Replace the steering components
	Bearing balls lost or broken	Replace the steering components

STEERING REPLACEMENT

1.Place an appropriate supporting stand under the engine in order to raise the front wheel up.
2.Remove the front and rear handlebar cover (1), the front middle cover (2), the front mudguard (3), the front wheel (4) and the front brake calliper (5).
1.When you replace parts 1 and 2 it is recommended to disconnect all electric wires.
2.When you replace the front brake calliper you must Release the brake hose from the triple tree but it is not recommended to disconnect the brake hose from the front brake calliper or the master brake cylinder.
3.Remove the bolt (6), which connects the handlebar and the fork shaft.
4.Lift the handle bar up and away.
5.Remove the pinched nut (7),the adjustment nut and the steering bearing components.



⚠ WARNING

6.Remove the front fork.
7.Replace the lower bearing components.
8.Assemble the front fork.
9.Assemble the upper bearing components
10.Reassemble in reverse order.Tighten the adjustment nut carefully, that the steering have no free play but still is turnable.Tighten the fixing nut with a wrench (32mm).
11.Reassemble other pats in reverse order.

NOTE

Before the assembling, grease the bearing race and the front axle.

HANDLE BAR REPLACEMENT

1.Place an appropriate supporting stand under the engine in order to raise the front wheel up.
2.Remove the front, rear handlebar cover (1) and the front middle cover (2).
3.Remove all parts from the handlebar and install it on the new one.
4.Remove the bolt (6), which connects the handlebar and the fork shaft.
5.Lift the handle bar up and away.
6.Reassemble the other pats in reverse order.

STEERING PLAY INSPECTION

Worn or loose steering bearings may cause danger. Therefore,the operation of the steering must be checked as follows at the intervals specified in the Periodic maintenance and lubrication chart.
1. Place a stand under the vehicle to raise the front wheel off the ground.
2. Hold the lower ends of the front fork legs and try to move them forward and backward.
3. If any free play can be felt,adjust or replace the steering bearing.

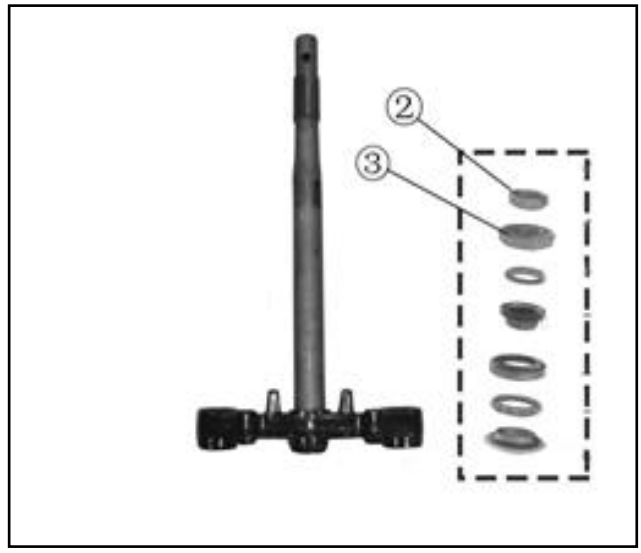
STEERING PLAY ADJUSTMENT

1. Place the vehicle with the front wheel on the ground.
2. Replace the front middle body cover (1).
3. Release the fixation nut (2).
4. Tighten or loosen the adjustment nut (3) till the correct setting is reached.
6. Test the steering play.

The steering must be adjusted in that way,that it is easy to move the handlebar and the steering is without free play.

6. Finally keep the adjustment nut with a wrench in position and tighten the fixation nut.

Test the steering play once again.



STEERING BEARING LUBRICATION

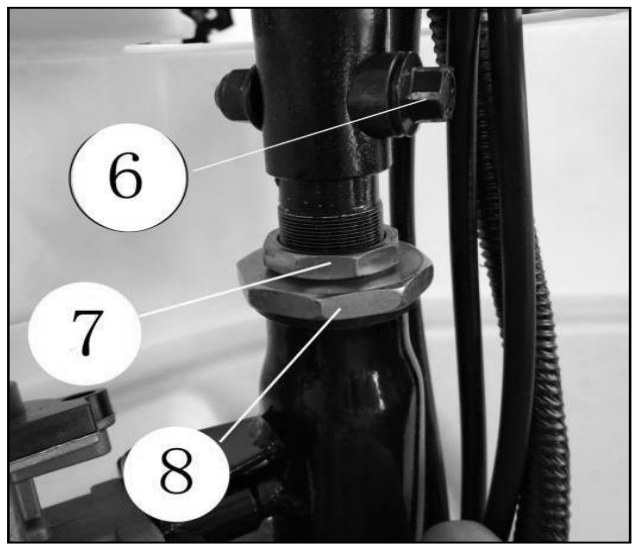
1. Place a stand under the vehicle to raise the front wheel off the ground.

2. Remove the front middle body cover , and

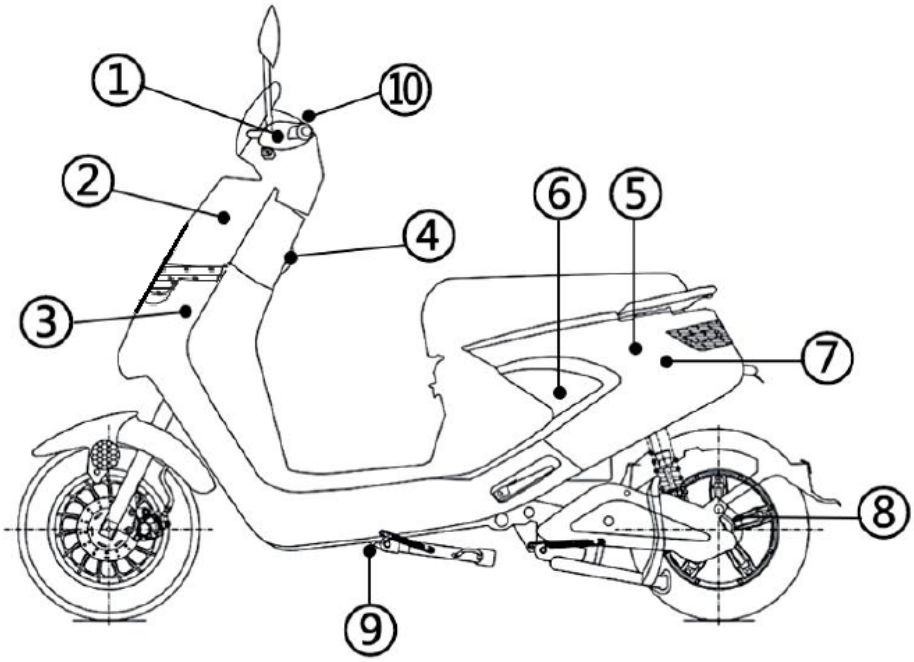
⚠ WARNING

bar (6) in that way, that the lower triple tree can move out for some centimetres after the steering parts are released.

3. Release the fixation nut (7)、(8),the bearing.Do not loose The bearing balls.
4. Now you can crease the upper and lower bearings cages. Please use only high quality grease to keep water away.
5.After the bearings are greased replace the parts in reversed order.



PART LOCATION - ELECTRICAL SYSTEM



PARTS NO.	PARTS NAME	PICTURE	PARTS NO.	PARTS NAME	PICTURE
1	Brake light switch - front	/	6	Battery	
2	Flasher		7	Converter	
3	Horn		8	Motor	
4	Power lock module/ main switch		9	Side stand switch	
5	Controller		10	Brake light switch - rear	/

CONFIGURATION LIST OF ELECTRIC VEHICLE

Type	Numbers in one group	Parameters of the charger					Parameters of the controller			Parameters of motor		
		Input voltage(V)	Maximum charge voltage(V)	Maximum charge current	Conversion current (A)	Temperature coefficient	Rated voltage(V)	Low-voltage protection point(V)	Current -limiting value (A)	Rated voltage(V)	No-Load RPM(rpm)	Motor power (W)
Lithium	1	220	67.2	5	0.18	2.5~4	60	52	45	60	870±3%	4700

SPECIFICATION BATTERY

ITEM	STANDARD VALUE		
Lithium battery	Full voltage	67.2V	
	Rated capacity	37.2Ah	
	Weight	12.75kg	
	Length	190	
	Width	150	
	Height	315	
	Operating Temperature	Charging	0~45℃
		Discharging	-10~60℃

BATTERY GENERAL INFORMATION

1.Please read the battery instructions and the label on its surface before use.
2.When in use, the batteries shall be kept out of heat、high voltage and avoided children’s touching. Do not drop the batteries.
3.Do not touch contacts together. Do not demolish or assembly the batteries by yourself. Do not put the batteries in the damp place to avoid danger.
4.When the batteries was stored for a long period, put it well in its half capacity. Do not wrap it with conduct material to avoid the damage caused by the direct contact between the metal and batteries. Keep the batteries in day places.
Well disposed the disused battery. Do not put it into fire or water.

⚠ WARNING

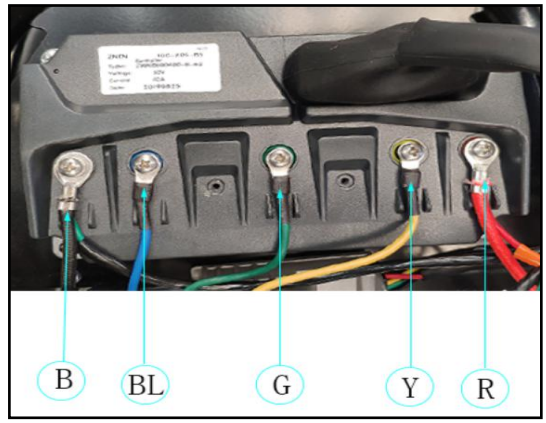
1.When the voltage between the two el extrudes is over 36V, the safe voltage of human beings, you should not touch them with your body.
2.Forbid Disassemble Batteries.

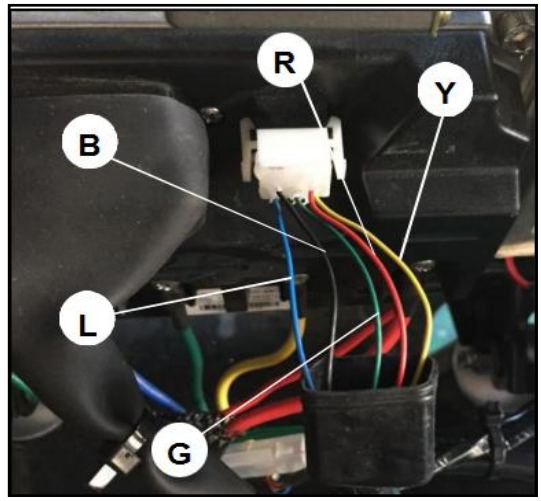
GENERAL INSPECTION

MOTOR CABLE INSPECTION

1.Remove the connection box cover.
2.Set the multimeter on the plug and measure as show in the table below.

	Y	BL	G
Y		1.6Ω	1.6Ω
BL	1.6Ω		1.6Ω
G	1.6Ω	1.6Ω	





Motor

NOTE

The results between each colour should be the same.
If the results are not the same turn the rear wheel and measure again.

1.Switch on the ignition
2.Measure the voltage of the with the multimeter as shown in the table below.
no throttle:

	B	R	Y	L	G
B		4-7V	5V	5V	5V

full throttle:

	B	R	Y	L	G
B		4-7V	2.5V	2.5V	2.5V

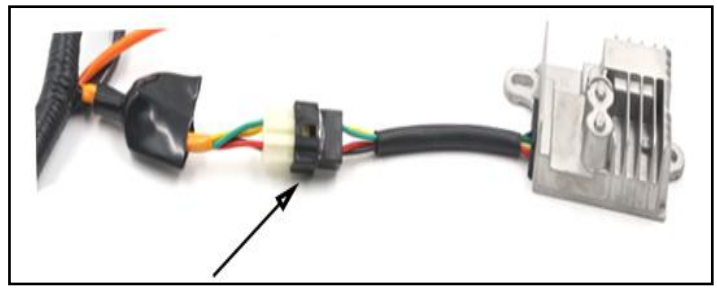
NOTE

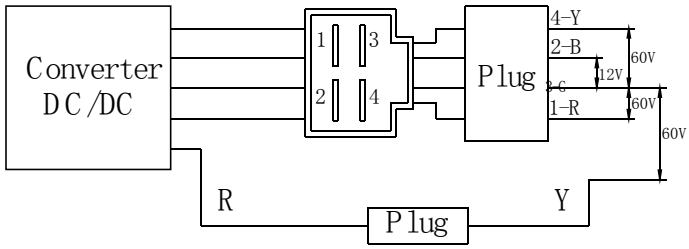
If the results are not the same turn the rear wheel and measure again.

CONVERTER INSPECTION

1.Switch on the ignition.

2.Measure the converter (1) as shown in the illustration below.





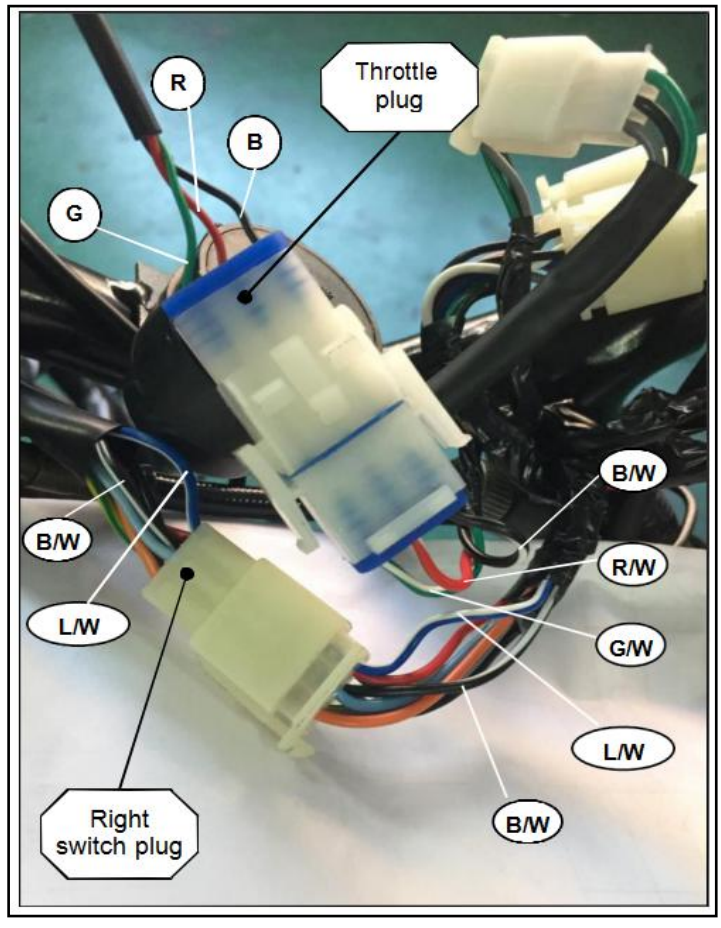
B—Black Y—Yellow R—Red G—Green

THROTTLE INSPECTION

1.Remove the front handlebar cover.

2.Set the multimeter as shown in the table below.

	B/W - G/W
no throttle	0.87 V
full throttle	3.62 V



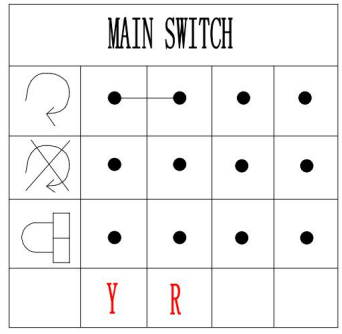
SPEED LIMIT SWITCH

1.Remove the front handlebar cover.

2.Measure with the multimeter as shown in the table below.

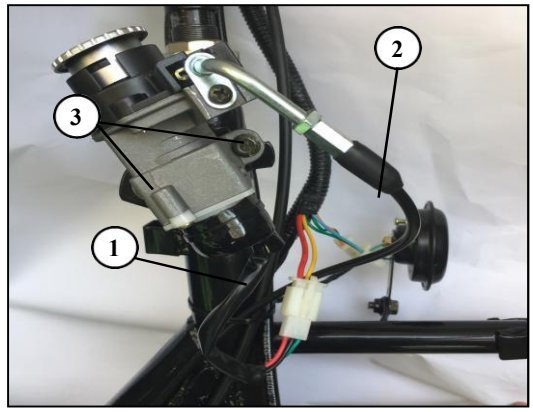
	BL/W - Y/W
L	5V
H	0V
R	Red
B/W	Black/White
G/W	Green/White
R/Y	Red/Yellow
Y	Yellow
L/W	Blue/White
B	Black
G	Green
L	Blue
Y/W	Yellow/White

MAIN SWITCH INSPECTION



1.Remove the side covers and the leg protection with floor panel.
2.Disconnect the main switch plug (3P) (1).
3.Use a continuity tester to measure the main switch as shown in the illustration.
4.If the main switch do not work correct replace it.

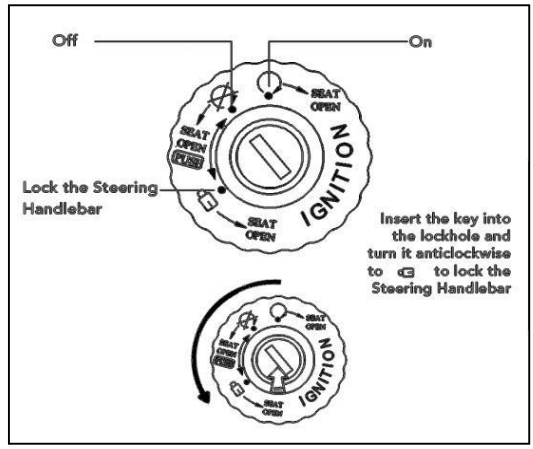
MAIN SWITCH REPLACEMENT



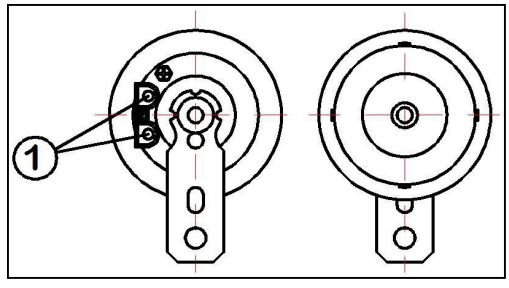
1.Follow points 1 and 2 from above description.
2.Disconnect the seat cable (2).
3.Remove the two bolts (3).

NOTE

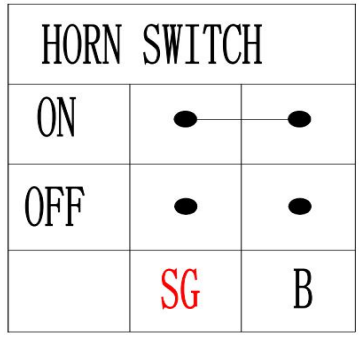
The main switch is combined with the steering lock. When you turn the handle bar to the left, turn the key
of the main switch to the lock symbol and pull the key out the steering is locked. If the steering lock do not work correct replace the main switch. Follow the
description above.



HORN INSPECTION

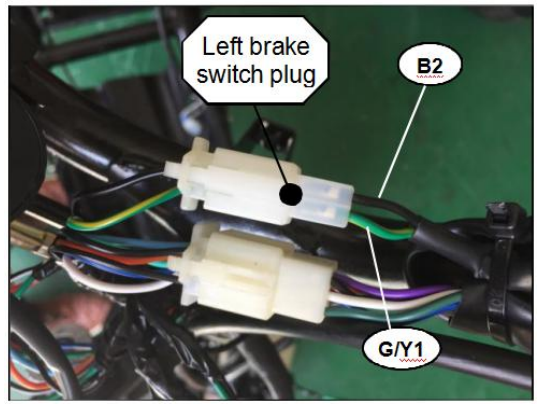


1.Remove the front cover.
2.Disconnect the horn wire.
3.The horn is works correct if it sounds when a 12V battery is connected to the terminals (1). Consider the correct connection of plus and minus pole during the inspection.
4.If the horn do not work correct replace it. If the horn work connected to a battery but not when connected to the handle switch left check the cables and the horn switches.
5.Disconnect the cables coming from the horn (green/ light green).
6.Use a continuity tester to measure the horn cables as shown in the illustration.



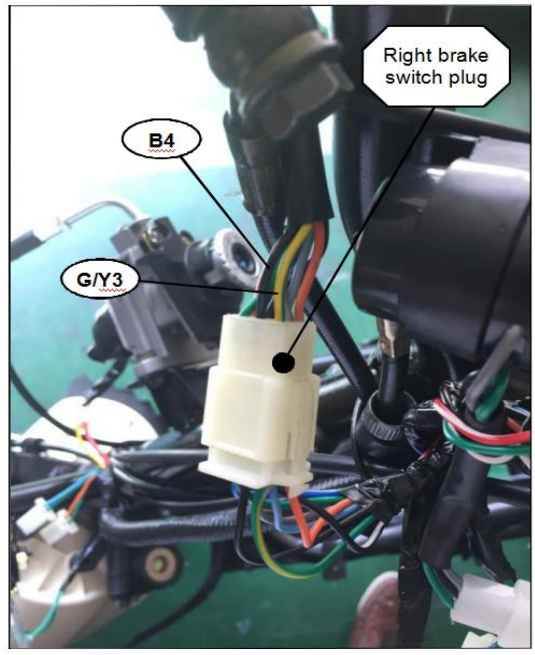
HANDLE SWITCH INSPECTION

1.Remove the head cover with speedometer and winkers.
2.Disconnect the related handle switch cable.
3.Use a continuity tester to measure the switches as shown in the illustrations below.
4.In case of damage the handle switch need to be replaced complete and does not need to be repaired.



Left brake switch

	G/Y(1)	B(2)
brake lever		
brake lever pressed	○——○	

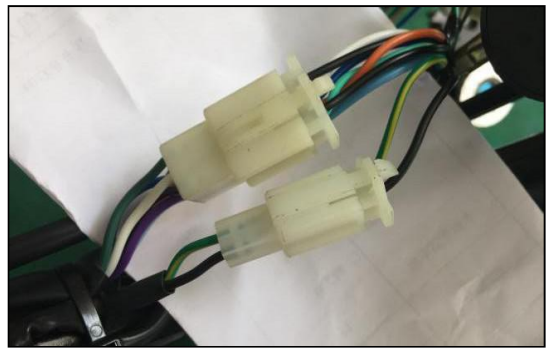


Right brake switch

	G/Y(3)	B(4)
brake lever		
brake lever pressed	○——○	

LEFT HANDLE SWITCH INSPECTION

1.Remove the rear handlebar cover.
2.Use a continuity tester to measure the switches as shown in the illustrations below.
3.In case of damage the handle switch need to be replaced.



Left handle switch

	W	B	L
Low beam	○——○		
High beam		○——○	

	O	Gr	Lb
Winker left	○——○		
Winker off			
Winker right		○——○	

	B	Lg
Horn switch		
Horn switch pressed	○——○	

RIGHT HANDLE SWITCH INSPECTION

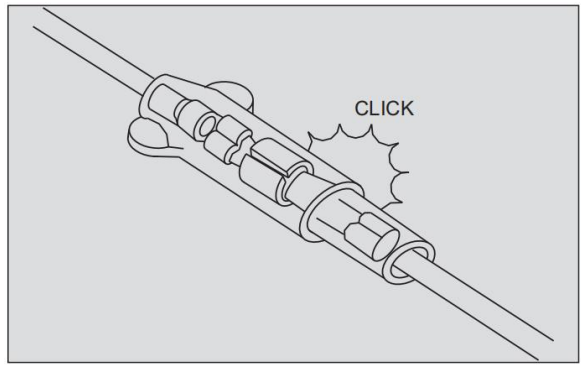
1.Remove the rear handlebar cover.
2.Use a continuity tester to measure the switches as shown in the illustrations below.
3.In case of damage the handle switch need to be replaced.

RIGHT SWITCH							
						●	●
						●	●
			●	●	●		
			●	●	●		
	●	●					
	G	PU	B	BR	DG	Y/G	B

red	R
black	B
white	W
blue	L
green	G
yellow	Y
orange	O
grey	Gr
light blue	Lb
light green	Lg

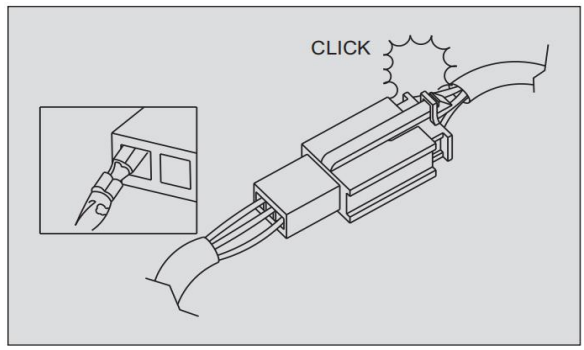
CONNECTOR

●When connecting a connector, be sure to push it in until a click is felt. Inspect the connectors for corrosion, contamination and breakage on its cover. Check the colour of the wires while connecting the connector.



COUPLER

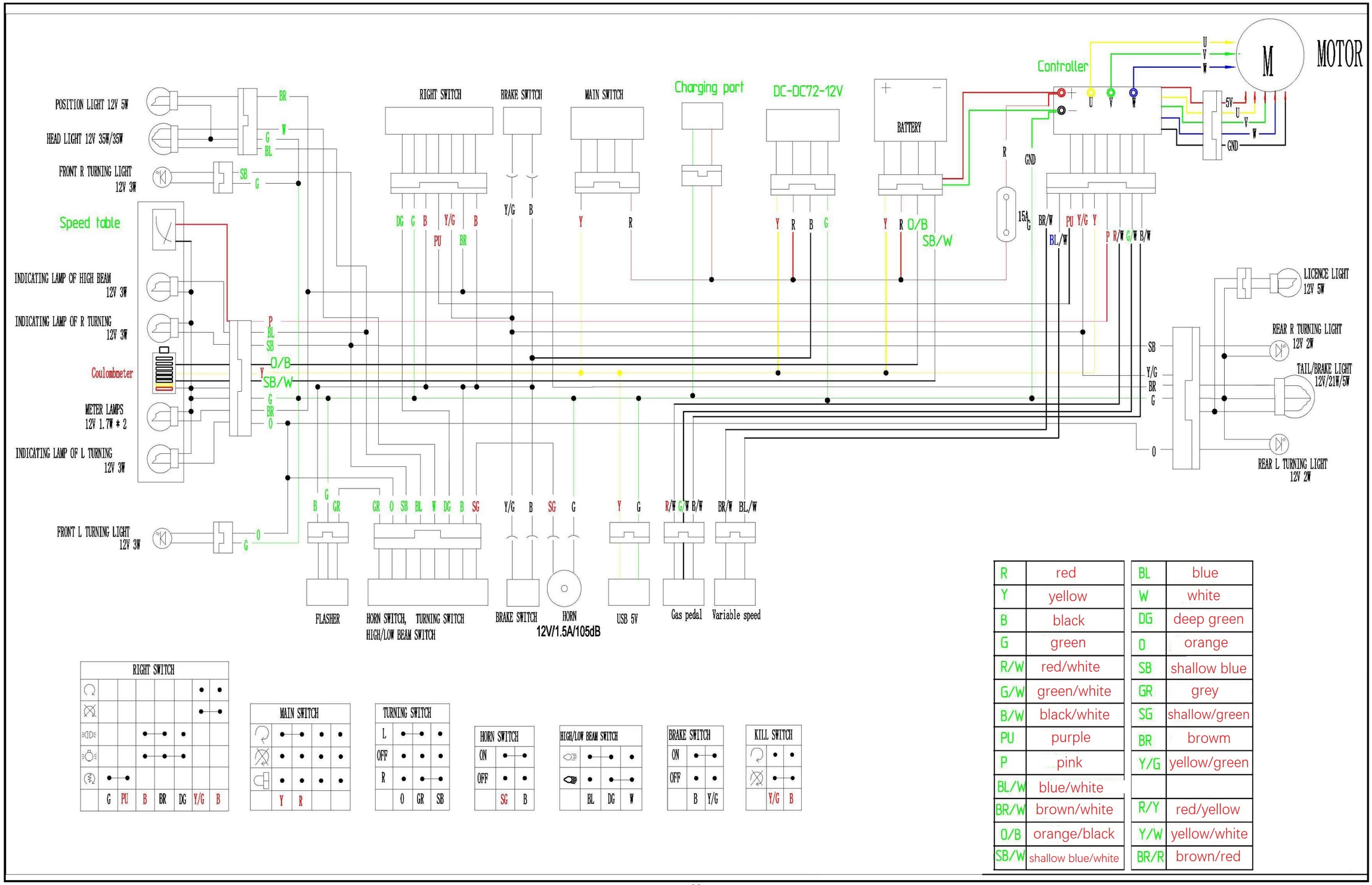
●With a lock type coupler, be sure to release the lock before disconnecting it. When connecting push it in fully, till it gets lock with a click feel. When disconnecting a coupler, be sure to hold the coupler body only. Do not pull the lead wires.
●Inspect each terminal on the coupler for being loose or bent. Inspect each terminal for corrosion and contamination.



⚠ WARNING

If it can not be repaired, please contact the dealer at the first time.

Wiring diagram



R	red	BL	blue
Y	yellow	W	white
B	black	DG	deep green
G	green	O	orange
R/W	red/white	SB	shallow blue
G/W	green/white	GR	grey
B/W	black/white	SG	shallow/green
PU	purple	BR	browm
P	pink	Y/G	yellow/green
BL/W	blue/white		
BR/W	brown/white	R/Y	red/yellow
O/B	orange/black	Y/W	yellow/white
SB/W	shallow blue/white	BR/R	brown/red