

READ THIS MANUAL CAREFULLY
It contains important safety information.

USER MANUAL



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INTRODUCTION

This manual will provide you with a clear understanding of the details and operation of this vehicle. This manual includes all of the necessary safety information. It provides information necessary to ride your vehicle and also includes basic service and inspection procedures.

AN IMPORTANT SAFETY MESSAGE:

- READ THIS MANUAL CAREFULLY AND COMPLETELY BEFORE OPERATING YOUR VEHICLE. MAKE SURE YOU UNDERSTAND ALL INSTRUCTIONS.
- PAY CLOSE ATTENTION TO THE WARNING AND CAUTION LABELS ON THE VEHICLE.
- NEVER OPERATE AN ATV WITHOUT PROPER TRAINING OR INSTRUCTION.

IMPORTANT MANUAL INFORMATION:

FAILURE TO FOLLOW THE WARNINGS CONTAINED IN THIS MANUAL CAN RESULT IN SERIOUS INJURY OR DEATH.

Particularly important information is distinguished in this manual by the following notations:

ATTENTION: The Safety Alert Symbol means **ATTENTION! BE ALERT! YOUR SAFETY IS INVOLVED!**

WARNING: Failure to follow WARNING instructions could result in severe injury or death to the vehicle operator, a bystander or a person inspecting or repairing the vehicle.

CAUTION: A CAUTION indicates special precautions that must be taken to avoid damage to the vehicle.

NOTE: A NOTE provides key information to make procedures easier or clearer.

IMPORTANT NOTICE

This vehicle is designed and manufactured for OFF-ROAD use only. It is illegal and unsafe to operate this machine on any public street, road or highway.
This vehicle complies with all applicable OFF-ROAD noise level and spark arrester laws and regulations in effect at the time of manufacture.
Please check your local riding laws and regulations before operating this machine.

WARNING

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

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①

Warning

Improper use of ATVs can result in SEVERE INJURY or DEATH.

ALWAYS USE AN APPROVED HELMET AND PROTECTIVE GEAR. **NEVER USE ATVs ON PUBLIC ROADS.** **NEVER CARRY PASSENGERS.** **NEVER USE ATVs WITH DRUGS OR ALCOHOL.**

NEVER operate:

- Without proper training or instruction.
- At speeds too fast for your skills or the conditions.
- On public roads; a collision can occur with another vehicle.
- With a passenger; passengers affect balance and steering and increase risk of losing control.

ALWAYS:

- Use proper riding techniques to avoid vehicle overturns or falls.
- Always wear your seat belt when riding an ATV.
- Avoid paved surfaces; pavement may seriously affect handling and control.

LOCATE AND READ OWNERS MANUAL. FOLLOW ALL INSTRUCTIONS AND WARNINGS.

②

Warning

Operation of this ATV by Children under the age of 16 increases the risk of severe injury or death. NEVER permit children under age 16 to operate this ATV.

③

Warning

NEVER ride as a passenger. Passengers can cause a loss of control, resulting in SEVERE INJURY OR DEATH.

④

Warning

An adult supervision strictly required!

1-2

SAFETY INFORMATION

TO DRIVE AN ATV IS A SERIOUS MATTER AND CAN BE HAZARDOUS TO OPERATE. An ATV handles differently from other vehicles including motorcycles and cars. A collision or rollover can occur quickly, even during routine maneuvers such as turning and riding on hills or over obstacles, if you fail to take proper precautions.

SEVERE INJURY OR DEATH can result if you do not follow these instructions:

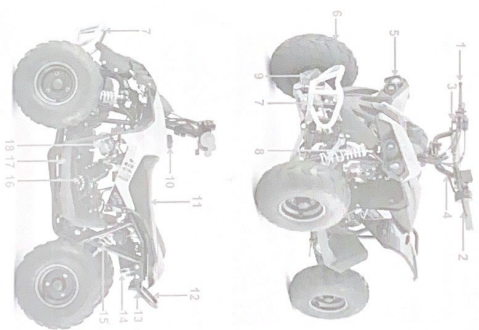
- Read this manual and all labels carefully and follow the operating procedures described.
- Never operate an ATV without proper training or instruction.
- A child under 16 years old should never operate an ATV.
- Never carry a passenger on an ATV.
- Always avoid operating an ATV on any paved surfaces, including sidewalks, driveways, parking lots and streets.
- Never operate an ATV on any public street, road or highway nor a dirt or gravel one.
- Never operate an ATV without wearing an approved motorcycle helmet that fits properly. You should also wear eye protection (goggles or face shield), gloves, boots, long-sleeved shirt or jacket, and long pants.
- Never consume alcohol or drugs before or while operating this ATV.
- Never operate at speeds too fast for your skills or the conditions.

- Never attempt wheelies, jumps, or other stunts.
- Always inspect your ATV each time you use it to make sure it is in safe operating condition.
- Always follow the inspection and maintenance procedures and schedules described in this manual.
- Always keep both hands on the handlebars and both feet on the footboards of the ATV during operation.
- Never operate the ATV in fast flowing water or in water deeper than 25 cm (10 in.).
- Always use the size and type of tires specified in this manual. Always maintain proper tire pressure as described in this manual.
- Never modify the ATV through improper installation or use of accessories.
- Never exceed the stated load capacity for an ATV. Cargo should be properly distributed and securely attached. Reduce speed and follow instructions in this manual for carrying cargo or pulling a trailer. Allow greater distance for braking while transporting cargo.

!WARNING

Always turn off the engine when refueling.
Don't start or run the engine in a closed area to avoid potential hazard.

DESCRIPTION AND MACHINE IDENTIFICATION



1. Right brake lever
2. Left brake lever
3. Throttle
4. Handlebar
5. Headlight
6. Tire
7. Front bumper
8. Front suspension
9. Front drum brake
10. Seat cap
11. Seat
12. Rear bumper
13. Rear light
14. Muffler
15. Rear suspension
16. Engine
17. Footrest
18. Carburetor

Identification numbers record

Record the vehicle identification number (VIN) and engine I.D. number in the spaces provided for assistance when ordering spare parts from your dealer or for reference in case the vehicle is stolen.

1. VEHICLE IDENTIFICATION NUMBER



The vehicle identification number is stamped on the rear side of the frame.

2. ENGINE I.D. NUMBER



Note: The vehicle identification number (VIN) is used to identify your ATV. The information of vehicle identification number and engine I.D. number will be needed to order spare parts from your dealer.

3-2

CONTROL FUNCTIONS

Main switch

Functions of the respective switch positions are as follows:

On: Engine can be started only at this position.

Off: All electrical circuits are switched off. The key can be removed in this position.



Throttle Lever

Once the engine is running, movement of the throttle lever will increase the engine speed.

Regulate the speed of the engine by varying the throttle position. Because the throttle is

spring-loaded, the engine will decelerate, and the engine will return to an idle any time your

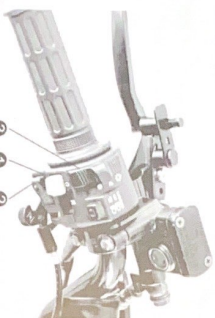
finger is removed from the throttle lever.

Before starting the engine, check the throttle to be sure it is operating smoothly. Make sure it returns to the idle position as soon as the lever is released.



4-1

Handlebar switches



1. Engine stop switch (Red)
2. Start switch
3. Lights switch (Black) (option)

Engine stop switch

The engine stop switch controls the ignition and can be used at all times to stop the engine, especially in an emergency. The engine will not start or run when the engine stop switch is turned to "X". When starting the engine, the function button should be at "O" position.

Start switch

The starter motor cranks the engine when this switch is pushed.

CAUTION:

See starting instructions prior to starting engine.

Lights switch

Turn the switch on for front light and taillight (option accessory).

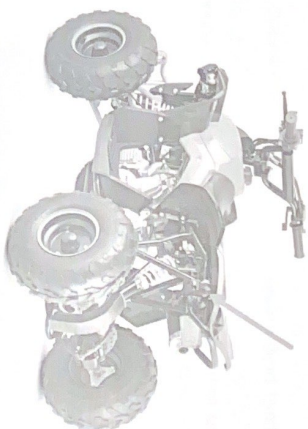
CAUTION:

Do not use the headlight with the engine turned off for more than 10 minutes. The battery may discharge to the point that the starter motor will not operate properly. If this should happen, remove the battery and recharge it, replace if necessary.

4-2

Emergency kill switch

This switch is on the back of ATV, to which an adult can attach string, and follow the child. If the child needs to stop suddenly, or if the adult wants to stop engine for any reason, just pull the string.



4-3



- 1. Engine stop switch (Red)
- 2. Start switch
- 3. Lights switch (Black/Orange)

Engine Stop Switch

The engine stop switch controls the generator and can be used at all times to stop the engine. It is located in an emergency. The engine will not start or run after the engine stop switch is turned to **OFF**. When starting the engine, the generator output should be at **ON** position.

WARNING

See starting instructions prior to starting engine.

Lights Switch

Turn the switch on for front light and battery (cannot accessories).

CAUTION

Do not use the headlight with the engine running for more than 11 minutes. The battery will discharge to the point that the battery will not operate properly. If this occurs, remove the battery and recharge it when necessary.

Front brake lever

The brake lever is located on the right side of the handlebar. Pull down on the lever to apply the front brake.



Rear brake lever

The brake lever is located on the left side of the handlebar. Pull down on the lever to apply the rear brake.



4-4

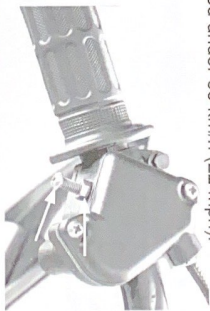
Parking brake

Apply the brake lever and then press down the stop-button to apply the parking brake. Squeeze the rear brake lever to release the parking brake.



Speed limiter

The speed limiter keeps the throttle from fully opening, even when the throttle lever is pushed to the furthest position. Screwing in the adjuster limits the maximum engine power available and decreases the maximum speed of the ATV. For children's safety, this ATV has been adjusted to a speed under 35 km/h (22 mph).



WARNING: Do not turn the speed adjuster out more than 12 mm (0.47 in.). Always make sure the throttle lever free play is 3~5 mm (0.12~0.20 in.).

4-5

Seat

To remove the seat, pull the seat lock lever upward and pull up the seat at the rear.



To install the seat, insert the lobe on the seat front into the receptacle on the frame and push down the seat at the rear.



Fuel tank cap

Remove the fuel tank cap by turning it counterclockwise. Automotive gasoline with octane number of 90 or higher may be used. After refueling, be sure to tighten the tank cap firmly.



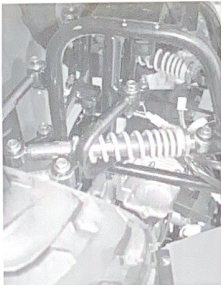
Front shock absorber adjustment

The spring preload can be adjusted to suit the vehicle's load and riding conditions.

Spring preload adjustment:

To increase the spring preload, turn the adjuster in direction a.

To decrease the spring preload, turn the adjuster in direction b.



Standard position: A
A--Minimum (Soft) E--Maximum (Hard)

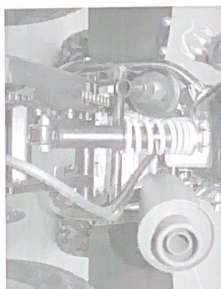
Rear shock absorber adjustment

The spring preload can be adjusted to suit the vehicle's load and riding conditions.

Spring preload adjustment:

To increase the spring preload, turn the adjuster in direction a.

To decrease the spring preload, turn the adjuster in direction b.



Standard position: A
Warning: Uneven adjustment on different sides can cause poor handling and loss of stability.
4-7

PRE-OPERATION CHECKS

Before using this ATV, check the following points:

ITEM	ROUTINE
Brakes	Check operation, free play. Check the combination of the brake lever, brake cable and pad. If the brake pad is becoming worn, please replace with a new one before use of the vehicle.
Parking brake	Check operation, condition and cable free play.
Fuel tank	Check fuel level. Fill with fuel if necessary.
Engine oil	Check oil level. Fill with oil if necessary.
Throttle	Check for proper throttle cable operation.
Wheels and tires	Check tire pressure, wear and damage.
Fittings and fasteners	Check all fittings and fasteners.
Lights	Check for proper operation if the lights have been installed.
Battery	Check fluid level. Fill with distilled water if necessary.

ATTENTION: Always check each item in the above list prior to operating your ATV.

5-1

Front and rear brakes

1. Check the operation and free play of the lever. They should move smoothly and there should be a firm feeling when the brakes are applied. If not, have the vehicle inspected by your dealer.
2. Brake operation

Test the brakes at slow speed after starting to make sure they are working properly. If the brakes do not provide proper braking performance, inspect the brake pads for wear.

Fuel

Make sure there is sufficient fuel in the tank.
Fuel tank capacity:

Total: 3.5 L

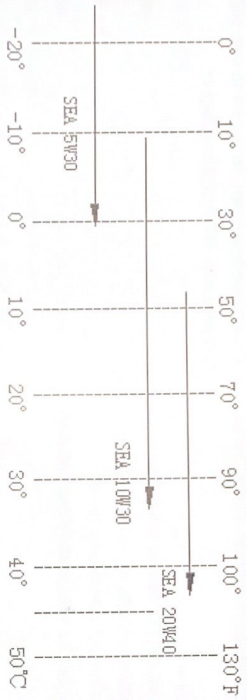
The engine has been designed to use regular gasoline with RON of 90 or higher.

5-2

Engine oil

Make sure the engine oil is at the specified level. Add oil if necessary.

Recommended oil:



Recommended engine oil classification: API Service SE, SF, SG type or higher.

ATTENTION: Do not add any anti-friction modifier to ensure proper clutch function.
Oil quantity in engine: 0.9 L (0.24 gal.).

5-3

Throttle lever

Check to see that the throttle lever operates correctly. It must open smoothly and spring back to idle position when released. Repair if necessary for proper operation.

Lights

If you have installed lights, check the headlight and taillight to make sure they are in working condition. Repair if necessary for proper operation.

Switches

Check the operation of the headlight switch, engine stop switch and any other switches. Repair if necessary for proper operation.

Battery

Check battery power; change the battery if electric power is getting poor.

Tires

1. Recommended tires for this ATV listed below:

Front	145/70-6
Rear	145/70-6



5-4

2. The tires should be set to the recommended pressure.
Recommended tire pressure:
Front 0.6-0.7 kgf/cm²
Rear 0.7 kgf/cm²
Check and adjust tire pressures when the tires are cold.
Tire pressures must be equal on both sides.
3. Tire pressure below the minimum specified could cause the tire to dislodge from the rim under severe riding conditions.
Minimum tire pressure:
Front 0.55 kgf/cm²
Rear 0.55 kgf/cm²
4. Use no more than the following pressures when seating the tire beads.
Front 2.5 kgf/cm²
Rear 2.5 kgf/cm²
Higher pressures may cause the tire to burst. Inflate the tires very slowly and carefully.
Fast inflation could cause the tire to burst.
5. Tire wear limit
When the tire groove decreases to 3 mm (0.12 in.) due to wear, replace the tire.

5-5

OPERATION

WARNING:

To operate ATV without being familiar with all controls is extremely dangerous. Freezing control cables in cold weather is extremely dangerous. Make sure everything is working smoothly before starting.

To start out and accelerate:

1. Release the parking brake.
2. Open the throttle gradually.
3. Once the vehicle has attained adequate speed, release the throttle lever.
4. Open the throttle gradually.

To decelerate:

When slowing down or stopping, release the throttle and apply the brakes smoothly and evenly.



6-1

Engine break-in

ATTENTION: The first 20 hrs for engine break-in is very important; never exceed the running condition listed below:

0 ~ 10 hours:

Avoid continuous operation above half throttle. Allow a cooling off period of five to ten minutes after every hour of operation.

Vary the speed of the vehicle from time to time. Do not operate it at one set throttle position.

10 ~ 20 hours:

Avoid prolonged operation above 3/4 throttle. Rev the vehicle freely, but do not use full throttle at any time.

After break-in:

Avoid prolonged full throttle operation. Vary speeds occasionally.

Parking

When parking, stop the engine. Turn the fuel cock to "OFF" and apply the parking brake.

Parking on a slope

Avoid parking on slopes. If you must park on an incline, apply the parking brake, and block the wheels with rocks or other objects.

ATTENTION:

MAXIMUM LOADING LIMIT

Vehicle loading limit (total weight of cargo, rider and accessories, and tongue weight): 95 kg (198 lbs.).

PERIODIC SERVICE

PERIODIC SERVICE/LUBRICATION

ITEM	ROUTINE	INITIAL			EVERY	
		1 month	3 months	6 months	6 months	1 year
Valves	Check valve clearance. Adjust if necessary.	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spark plug	Check condition. Adjust gap and clean. Replace if necessary.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air filter	Clean. Replace if necessary.		Every 20-40 hours (more often in wet or dusty areas)			
Carburetor	Check idle speed/starter operation. Adjust if necessary.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cylinder head cover breather system	Check breather hose for cracks or damage. Replace if necessary.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Exhaust system	Check leakage. Retighten if necessary. Replace gasket if necessary.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ITEM	ROUTINE	INITIAL			EVERY	
		1 month	3 months	6 months	6 months	1 year
Fuel line	Check fuel hose for cracks or damage. Replace if necessary.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Engine oil	Check oil level weekly. Replace. (Warm up engine before draining.)	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Engine oil strainer	Clean.	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Brake	Check operation every time before driving. Correct if necessary.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tires	Check pressure and wear. Replace if damaged.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wheel bearings	Check bearing assembly for looseness/damage. Replace if damaged.	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Steering system	Check operation, replace if damaged. Check toe-in, adjust if necessary.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7-2

ITEM	ROUTINE	INITIAL			EVERY	
		1 month	3 months	6 months	6 months	1 year
Battery	Check specific gravity. Check that the breather hose is positioned properly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

WARNING:

Never service the engine while still running!

7-3

ENGINE

Left hand side



12v, C.D.I., Electric Start
Max Power: 2.0Kw/7500rpm approx.
Max Torque: 2.5Nm/6000rpm approx.
Transmission: Auto Clutch

70cc, 4 Stroke, Single Cylinder, Air-cooled
12v, C.D.I., Electric Start
Max Power: 3.7Kw/8500rpm approx.
Max Torque: 4.5Nm/6000rpm approx.
Transmission: Auto Clutch

Right hand side



90cc, 4 Stroke, Single Cylinder, Air-cooled
12v, C.D.I., Electric Start
Max Power: 4.0Kw/8000rpm approx.
Max Torque: 5.6Nm/6000rpm approx.
Transmission: Auto Clutch

Spec:
50cc, 4 Stroke, Single Cylinder, Air-cooled
7-4

Engine oil

1. Engine oil level measurement
 - a. Place the vehicle on a level surface.
 - b. Warm up the engine for several minutes and stop it.
 - c. Wait a few minutes until the oil level settles before checking.
 - d. Remove the dipstick and wipe it off with a clean rag. Insert the dipstick in the filler hole without screwing it in.
 - e. Remove the dipstick and inspect the oil level.
 - f. The oil level should be between the maximum and minimum marks. If the level is low, add oil to raise it to the proper level.

CAUTION:

Be sure no foreign material enters the crankcase.

2. Engine oil replacement and oil strainer cleaning

- a. Place the vehicle on a level surface.
- b. Warm up the engine for several minutes and stop it.
- c. Place a container under the engine.
- d. Remove the dipstick and drain plug to drain the oil.



7-5

Idle speed adjustment

NOTE: A diagnostic tachometer must be used for this procedure.

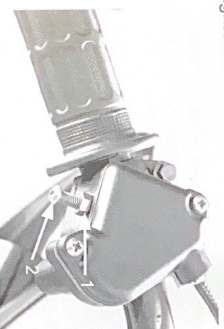
1. Start the engine and warm it up for a few minutes at approximately 1,000 to 2,000 r/min. Occasionally rev the engine to 4,000 to 5,000 r/min. The engine is warm when it quickly responds to the throttle.
 2. Connect the tachometer and set the idle to the specified idling speed by adjusting the throttle stop screw. Turn the screw into increase engine speed, and out to decrease engine speed.
- SPECIFIED IDLE SPEED: 1700 rpm±100**



Throttle lever adjustment

NOTE: Adjust the engine idling speed before adjusting the throttle lever free play.

1. Loosen the locknut.
2. Turn the adjusting bolt until the throttle lever free play is 3~5 mm (0.12~0.20 in.).
3. Tighten the locknut.



1. Locknut
 2. Adjusting bolt
- a. 3 ~ 5 mm (0.12 ~ 0.20 in.)

7-6

Brake adjustment – rear brake

The rear brake lever free play should be 20~25 mm (0.80~1.0 in.). If the free play is incorrect, adjust it as follows:

1. Raise the rear side of vehicle to make rear tires leave from the ground.
2. Turn the rear wheels and turn the bolts and nuts on these 2 positions to adjust the calliper only with a suitable brake condition.
3. Tighten the nuts and test the adjustment result, if it's still not adequate, do the same process again.



Brake lever lubrication

Lubricate the pivot of each lever and pedal. Please use SAE 10W/30 motor oil.

7-7

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Fuse replacement

If the fuse is blown, turn off the main switch and install a new fuse of the specified amperage. Then turn on the switches. If the fuse immediately blows again, consult your dealer. Specified fuse: 7 A/250 V.



1. main fuse

WARNING:

Never use an improper fuse.

An improper fuse can cause damage to the electrical system which could lead to a fire.

CAUTION:

To prevent accidental short circuit, turn off the main switch when checking or replacing a fuse.

7-8

Battery asks for replenishment

1. Old style battery will corrode and discharge if not be maintained. The battery fluid should be checked at least once a month.

2. The ATV adopts new style battery asking for replenishment. Just enjoy its easy use and sound performance.



Replacing the headlight bulb

If the headlight bulb is burnt, remove the headlight unit assembly, take out the defective bulb and replace a new one.

Air filter cleaning

1. Remove the seat.
2. Remove the air filter case cover.
3. Remove the air filter element, and separate it from the guide.
4. Blow the dust on element off with air or replace it.

7-9

SPECIFICATIONS

MODEL	
Dimensions	1200mm
Overall length	760mm
Overall width	800mm
Overall height	100mm
Minimum ground clearance	
Basic Weight	68 KGS
Without oil	
Engine	4-stroke, single cylinder, air-cooled
Engine type	50cc 39x41.4mm 70cc 47x41.4mm
Displacement	90cc 47x49.5mm 110cc 52.4x49.5mm
Starting system	Electric
Lubrication system	Pressurizing splash

8-1

MODEL	
Engine oil	0° 10° 30° 50° 70° 90° 100° 130°F
Type	SAE 5W30 → SAE 10W30 → SAE 20W40
Recommended engine oil classification:	-20° -10° 0° 10° 20° 30° 40° 50°C
Quantity	API Service SE, SF, SG type or higher 0.9 L
Air filter	Dry element
Fuel Type	Unleaded fuel

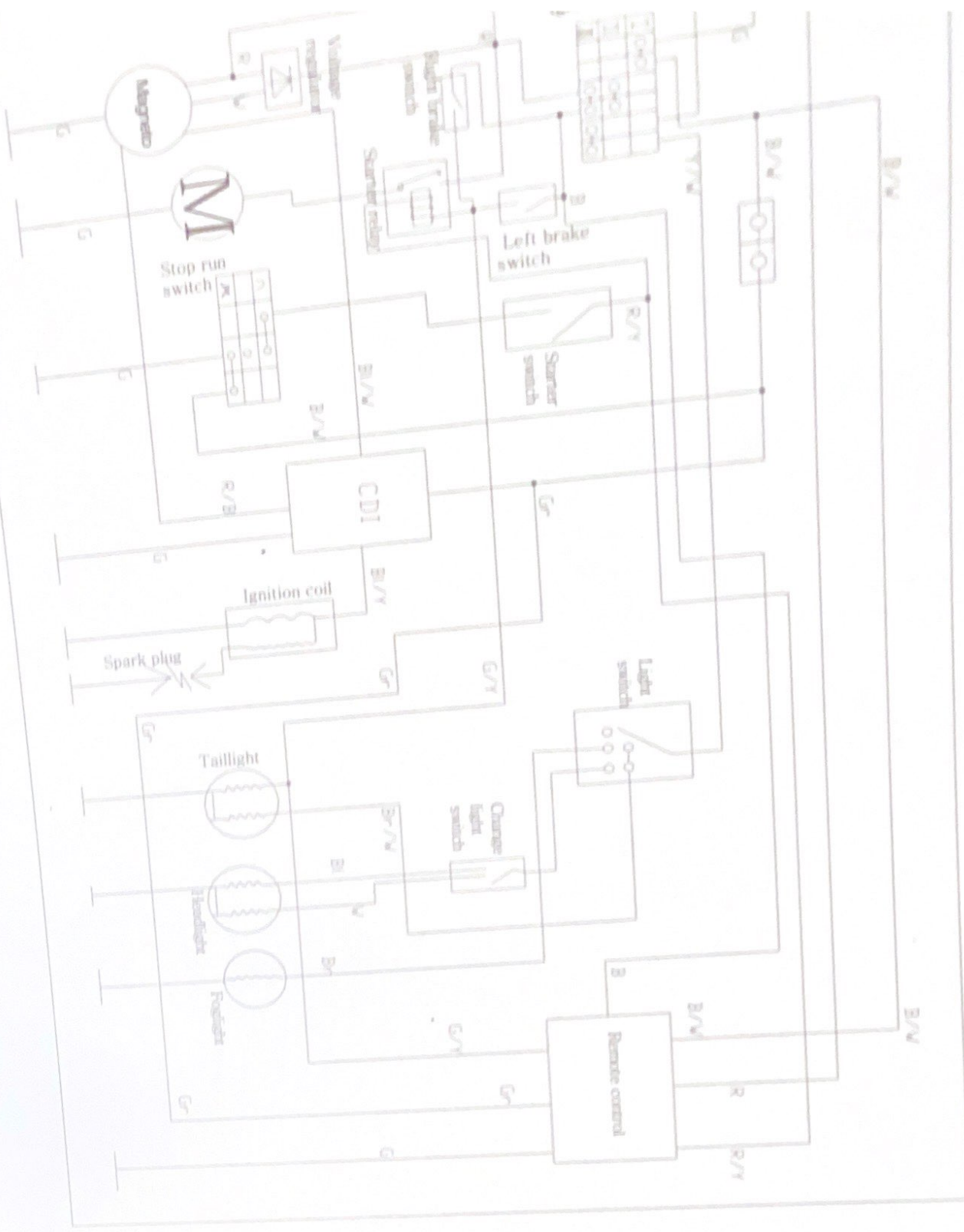
8-2

MODEL	
Chassis	
Frame type	Steel tube
Caster angle	4°
Transmission	
Secondary reduction system	Automatic/Semi-automatic
Transmission type	
Tire	
Type	Tubeless
Size	145/70-6 145/70-6
	rear
Brake	
Front brake	Drum brake or Hydraulic disc brake
	operation
	type
Rear brake	Hand operation Hydraulic disc brake Hand operation
	operation

8-3

MODEL	
Suspension	
Front suspension	Double swing-arm
Rear suspension	Single swing-arm
Shock absorber	
Front shock absorber	Coil spring/Oil damper
Rear shock absorber	Coil spring/Oil damper
Electrical	
Ignition system	C.D.I.
Generator system	Magneto
Battery type/voltage, capacity	12V, 4A

8-4



MAINTENANCE RECORD

Copies of work orders and/or receipts for parts you purchase and install will be required to document maintenance done in accordance with the warranty. The chart below is printed only as a reminder to you that the maintenance work is required. It is not acceptable proof of maintenance work.

MAINTENANCE INTERVAL	DATE OF SERVICE	MILEAGE	SERVICING DEALER NAME AND ADDRESS	REMARKS
1 month				
3 months				
6 months				
12 months				
18 months				
24 months				
30 months				
36 months				
42 months				
48 months				
54 months				
60 months				

C Type Circuit Diagram

