flyscooters

Owner's Manual

Model: SWIFT

Engine: 50cc



Read this manual carefully. It contains important safety information.
No one under the age of 16 should operate this scooter.

Congratulations on your purchase of a Flyscooter!

A Flyscooter will give you many years of use and miles of fun. As you start on the road to discovering life on a scooter, we want to remind you to carefully read through this owner's manual. This owner's manual provides a wealth of information for novice and seasoned scooter riders alike. It offers helpful hints on scooter safety, proper maintenance, features and functions, and other essential information to ensure the proper operation of your Flyscooter.

We would also like to remind you to carefully review Flyscooters' warranty policy available at www.flyscooters.com. To activate your warranty coverage, you must register online at www.flyscooters.com, under the section titled Rider Support and Services.

We wish you many great journeys on the road ahead. Don't forget to write to us at info@flyscooters.com and tell us your stories.

Table of Content

SAFETY INFORMATION

Important safety information....1-2

DESCRIPTION

Left & right views 3

Instrument panel ..... 4 - 5

INSTRUMENT CONTROL

Main switch 6

Steering lock 7

Handlebar switches 8

Fuel tank cap 9

Seat lock 9

Front / rear brake lever 10

Glove box compartment 11

Side stand kill switch 11

PRE-OPERATION CHECK

Pre-operation check 12

Brakes ..... 13 - 14

Throttle 15

Engine oil 15

Tires ..... 16 - 17

Fittings 18

Lights, signals & switches 18

Mirrors 18

Fuel 19

OPERATION

Starting engine ..... 20 - 21

Starting off 21

Acceleration 22

Parking 22

Break-in period 23

PERIODIC MAINTENANCE

Periodic maintenance 24

Maintenance chart 25

Engine oil ..... 26 - 27

Gear oil replacement 28

Cleaning air filter 29

Spark plug inspection 30

Brake lever adjustment 31

Brake fluid check 32

Brake fluid replacement 33

Center/side stand lubrication ... 34

Front fork inspection 35

Steering inspection 36

Fuse replacement 37

Battery 38

Electric circuit diagram 39

ECS Warranty.....40

Safety Information

Important Safety Information

Understanding the challenges that you will face when operating a scooter will greatly improve your safety and enjoyment on the roads. There are many things that you can do to protect yourself when riding. You will find many helpful recommendations throughout this manual. The following are a few points that we consider most important.

Always Wear Protective Gear

It is a proven fact that helmets significantly reduce the number and severity of head injuries. Always wear helmets, eye protection, sturdy boots, gloves, and other protective gear when riding.

Make Yourself Visible

Some drivers do not look for scooters while driving and are often unaware of their presence on the road. To make yourself highly visible wear bright, reflective clothing while riding. Position yourself in traffic lanes so other drivers can see you easily. Always signal before turning or changing lanes. Use your horn to alert others on the road.

Safety Information

Ride Within Your Limit

Pushing your limits is a common cause of scooter accidents. Never ride beyond your personal abilities or faster than conditions warrant. Remember that alcohol, drugs, fatigue and inattention can significantly reduce your ability to make good decisions and to ride safely.

Keep Your Scooter In Safe Operation

For safe riding, it is important to inspect your scooter before every ride and perform recommended maintenance in accordance to the maintenance chart or when needed for safe operation.

Load Limit Guidelines

Your scooter has been designed to carry you and one passenger. When you carry a passenger, you may notice some changes in acceleration and braking. Exceeding the weight limit or carrying an unbalanced load can seriously affect your scooter's handling, braking and stability. Improper modifications and poor maintenance can also reduce your safety.

Description





1. R & L rear view mirrors
2. Headlight
3. Front turn signals
4. Seat cushion lock
5. Rear rack
6. Air filter
7. Engine
8. Center stand
9. Instrument panel
10. Ignition key switch
11. Helmet hook
12. Battery
13. Gas tank
14. Rear brake light
15. Rear turn signals
16. Muffler

Description

Speedometer

Speed is indicated by mp/h and km/h on speedometer.

Odometer

The white digits in the black background indicates total miles traveled with this scooter.

Turn signal indicators

Flashing arrow indicates the direction of the turn signal that is activated.

Fuel Gauge

Fuel guage indicates the level of fuel remaining in the fuel tank. It does not work when main switch is in the "OFF" position. Fill the tank with 90 octane or higher gasoline.

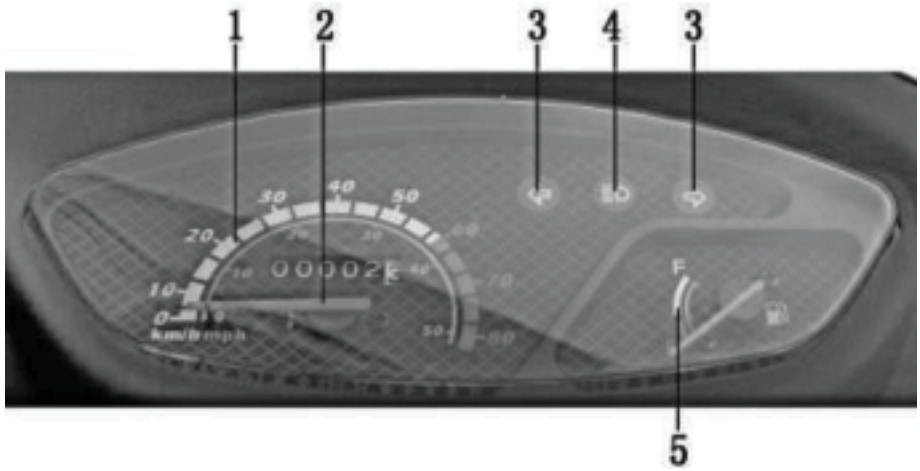
High Beam Indicator

Lights up when high beam is in use.

Caution:

Use high beam only during day light hours, or at night when there is no on-coming traffic or drivers ahead.

Description



1. Speedometer
2. Odometer
3. Turn signal indicators
4. High beam indicator
5. Fuel gauge

FLY SCOOTERS

Main Switch

"ON" Position:

Electrical circuits are switched on. The engine can now be started by pressing the electric ignition button or by manually kick starting the engine.

"OFF" Position:

All electrical circuits are switched off. The engine stops. The ignition key can be removed in this position.

"LOCK" Position:

The steering column is locked when in this position. The ignition key can be removed.

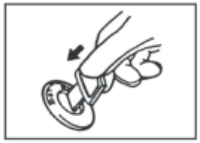


ON OFF LOCK

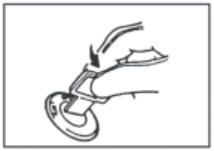
Instrument Control

Turn the handlebar fully to the left and lock the steering column to prevent theft.

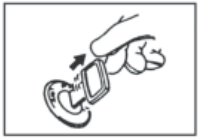
1. Push the key inward on the main switch.



2 . Turn the key fully to “LOCK” position.

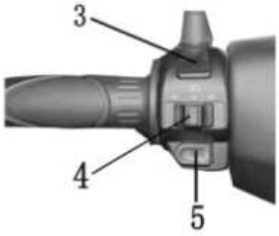


3. Pull to remove the key.



Instrument Control





1. Electric starting switch

Squeeze the brake lever and press the button to start the engine.

2. Light switch

Your scooter is designed to have constant running light, in accords with DOT requirements. Lights can not be turned off.

3. Dimmer switch

High beam is on.

Low beam is on.

4. Turning signal switch

Use switch to signal your intention to change lanes or to turn. Push the entire button to the direction you want to turn. Push the white center button to cancel. Signals do not self-cancel.

5. Horn button

Instrument Control

Gas Tank Access





To Open:

1. Insert the key into the access panel lock.
2. Open the access panel by pulling back on the door
3. Turn the fuel cap 1/4 of a full turn counter clockwise.

Seat Storage Access

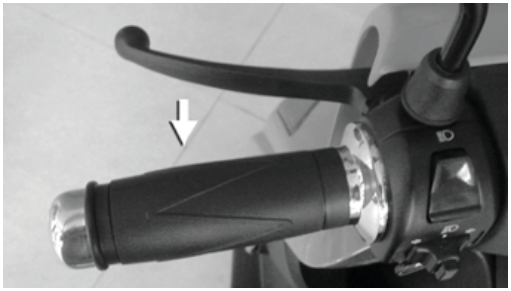
To access the storage compartment under the seat, insert the key into the lock and turn as shown below. Return the seat to its original position and press down to engage the lock.



Instrument Control

Rear Brake Lever

The rear brake lever is located by the left handlebar. Squeeze the lever to apply rear brake.



Front Brake Lever

The front brake lever is located on the right handlebar. Squeeze the lever to apply front brake.



Instrument Control

Seat Storage Compartment

A built-in storage compartment can be found underneath the seat cushion. To access this storage space unlock the seat and lift the seat cushion.



Front Helmet Hook

The helmet hook is used to hang helmet, bags or other items while the scooter is parked. It should be clear of items when you are riding your Il Bello.



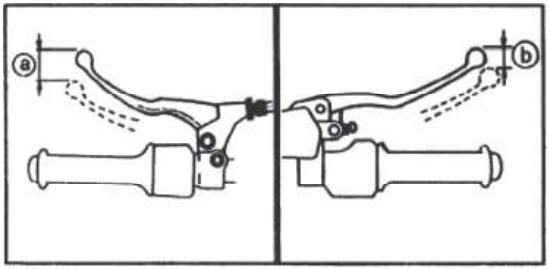
Pre-operation Checks

Pre-operation checks should be made each time the scooter is ridden. This inspection can be accomplished in a very short time. The added safety of pre-operation checks is more than worth the time involved.

NO	ITEM	SUMMARY	PAGE
1	Brake System	Check operation, freeplay, fluid level and leakage. Fill only with DOT4 brake fluid	13 - 14
2	Throttle	Check for smoot operation. Adjust if necessary.	15
3	Engine Oil	Check oil level. Add10W-40 motorcycle oil if necessary	15
4	Tires/Wheels	Check tire pressure, wear and damage.	16 - 17
5	Fittings	Check all chassis fittings and fasters. Tighten if necessary.	18
6	Light/Switches	Check operation.	18
7	Mirrors	Check visibility	18
8	Fuel	Fill with only 90 Octane or higher gasoline. Avoid over filling.	19

Pre-operation Checks

Brakes



a. Free play 10~20 mm b. Free play 10~20 mm

Check for correct free play in the brake levers and adjust them if necessary. Make sure the brakes are working properly by testing at a low speed shortly after starting out.

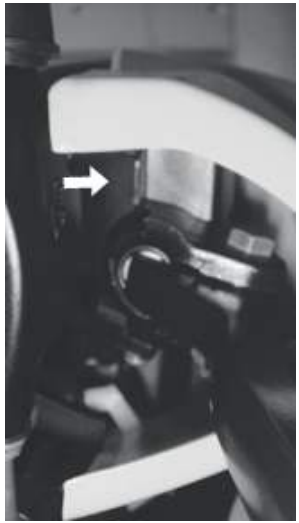
A soft, spongy feel in the brake lever indicates a problem in the brake system. Do not operate the scooter until the problem in the brake system has been corrected. Visit an authorized Flyscooters dealer for immediate repair.

Pre-operation Checks

Brake Fluid Check

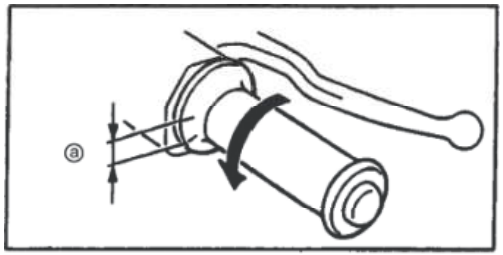
Begin by applying the brakes a few times. Check to see if any brake fluid leaks out from the pipe joints by the handlebar or at the master cylinder by brake discs. If any leakage is found, stop riding the scooter immediately and contact an authorized Flyscooters dealer for servicing.

Check the brake fluid level in the brake reservior by the handlebar. Add DOT4 brake fluid if necessary.



Pre-operation Checks

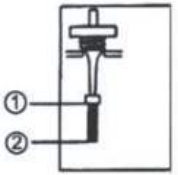
Throttle Grip Check



a. Free play 3~5 mm

Turn the throttle grip and check the free-play to see if it operates properly. Make sure the grip returns to the original position by spring force when it is released. Ask an authorized Flyscooters dealer to make any necesary adjustments.

Engine Oil Check



1.Maximum level
2.Minimum level



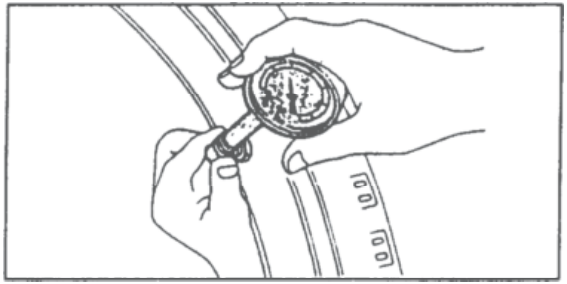
1. Maximum level 2. Mnimum level

Engine oil should be filled between maximum and minimum level as shown in the diagram above. Use only quality motor oil with ratings of 10W-40.

Pre-operation Checks

Tire check

To ensure maximum performance, longer durability, and safe operation, always check and adjust the tire pressure before each ride.



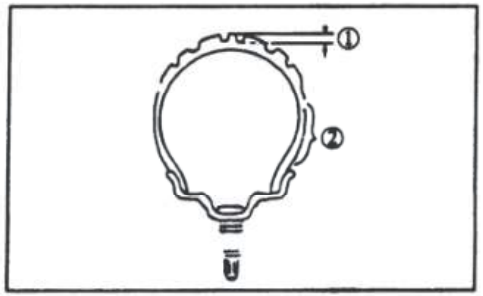


The tire pressure must be adjusted according to the total weight of the cargo, rider, passenger, accessories, and vehicle speed. Refer to each tire wall for the proper inflation pressure guide.

Pre-operation Checks

Tire Check

Always check the tires before operating your scooter. Contact an authroized Flyscooters dealer to replace the tire immediately if the center tread depth reaches the limit as shown, if the sidewall is cracked, or if the tire is punctured.



1. Tread depth 2. Side wall

The total weight of the cargo, rider, passenger and accessories should not exceed the maximum loading limit of your scooter. Operating an overloaded scooter may cause tire ruptures, accidents, and serious injuries.

Proper loading affects the riding characteristics of your scooter, including handling, braking, and acceleration. Do not carry loosely packed items that can shift during travel. Distribute the weight evenly and adjust the suspension if necessary.

Pre-operation Checks

Fittings and Fasteners

Always check that the chassis fittings and fasteners are tight before a ride. Take your scooter to an authorized Flyscooters dealer for proper torque adjustment every six months.

Lights, Singals, and Switches

Check all the lights. Make sure they are all in working condition. Check the operation of the handlebar switches and the main switch.

Mirrors

To ensure maximum visibility, adjust mirrors as shown in the illustration.



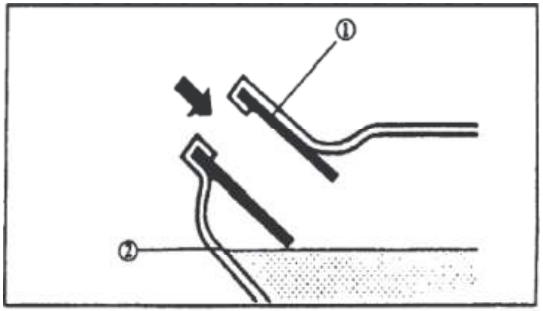


Pre-operation Checks

Fuel

Fill the fuel tank up to the bottom of the filler tube as shown in this illustration. Over-filling the tank can flood the fuel system, results in the scooter not starting and/or stalling out under normal operating conditions. Avoid spilling gasoline on painted surfaces. If spill occures, wipe off spilled gasoline immediately.

*Use only high quality 90 octane or higher unleaded gasoline.



1. Filler tube 2. Fuel level

Operation

Starting the Engine

Only start the engine when your scooter is at a complete stop. Check to be sure that all kick stands are returned to their original position.

1. Turn the main switch to the "ON" position.

2. Check that the engine kill switch in "⟳" position.



3. Completely release the throttle grip. Squeeze and hold either rear brake lever.

4. Press the electric starter switch. Do not press the starter switch again once the engine has started.

Note: If the engine fails to start, release the starter switch for a few seconds, then try again. Each attempt should not last longer than 5 seconds to perserve battery life.

5. If the scooter has not been ridden for over an hour, allow engine to warm up for 1-3 mins before riding.

Note:
* For maximum engine life, never accelerate hard on a cold engine.

**The exhaust fumes are poisonous and can cause loss of consciousness or even death within a short time. You must operate your scooter in an area with adequate ventilation.

Starting Off

1. Sit on the seat, with both feet firmly on the ground on both sides of scooter.

2. Straighten the handlebar and release the brake levers.

3. Check for oncoming traffic and use your turn signal.

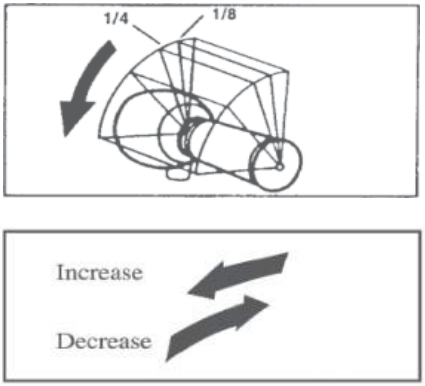
4. Twist the throttle slowly to accelerate.

** Flyscooters higly recomments taking a riders safety course prior to riding.*

Operation

Acceleration

The speed of your scooter can be adjusted by twisting the throttle grip. Turning the grip toward you increases the speed. Turning it away from you decreases the speed.



Parking

When parking your scooter, look for a flat and firm surface to stop. Make sure there is no gravel or other objects that can make the surface slippery, causing you and/or the scooter to fall over. Turn off the engine by turning the main switch to the "OFF" position and/or by turning the key to the "OFF" position.

⚠ Caution

The muffler is extremely hot after riding. Park the scooter in a place where no one is likely to come in countact with the muffler.

Operation

Engine Break-in Period

The most important period in the life of your scooter is the period between 0 to 500 miles. For this reason we ask that you carefully read the following recommendations on how to properly operate and care for your scooter during this critical time. Because various parts of your engine adjust themselves to the correct operating tolerances, prolonged full throttle riding, or any condition that might result in excessive stress or heat to the engine should be avoided.

Keep the riding speed below 50 miles per hour within the first 500 miles.

1. 0 - 100 miles:
   Keep the prolonged throttle speed below 35 mph.
2. 100 - 200 miles:
   Keep the prolonged throttle speed below 45 mph.
3. 200 - 500 miles:
   Keep the prolonged throttle speed below 50 mph.

Periodic Maintenance

Periodic inspection, adjustments, and lubrication will keep your scooter in the safest and most efficient operating condition. You should take into consideration that weather, terrain, geographical locations that may require you to alter the schedule for regular maintenance.

This section is provided to you for educational and reference purposes only. All service and maintenance should be done at an authorized Flyscooters dealer. Improper adjustments and repairs may void your warranty. Consult your Flyscooters dealer whenever possible for questions and concerns.

The most important points of scooter maintenance are explained in the following pages.

PERIOD MAINTENANCE CHART

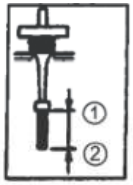
ITEM	RIDING DISTANCE IN MILES													Weekly
	300	1,000	2,000	3,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000	11,000	12,000	
Engine Oil	R	R	R	R	R	R	R	R	R	R	R	R	R	C
Fuel Filter		C		C		C		C		C		C		
Gear Oil	R	R	R	R	R	R	R	R	R	R	R	R	R	
Spark Plug			C		C		C		C		C		C	
Valve Clearance		A			A				A				A	
Cam Chain		A			A				A				A	
Carburetor			C		C		C		C		C		C	
Brake System							B						B	C
Front Tire							R						R	C
RearTire					R				R				R	C
Air Filter					R				R				R	
Throttle and Brake Cables	L			L			L			L			L	C
Screws and Nuts	T		T		T		T		T		T		T	
*Follow the distance intervals when mileage exceeds those listed above.														
*If ridden in dusty areas, air filter should be replaced at more frequent interval.														
*Between specificed actions, check, clean, adjust, tighten, and replace if necessary.														

R: Replace **C:** Clean **A:** Adjust **L:** Lubricate **T:** Tighten **B:** Bleed

FLY SCOOTERS

Engine Oil Check

1. Place the scooter on the center stand. Warm up the engine for several minutes.
2. Turn off the engine. Wait a few minutes until the oil settles before removing the dipstick.
3. The oil level should be between the minimum and the maxium mark when the dipstick is not screwed in.



1.Maximum level 2.Minimum level

Note: Be sure the scooter is in the upright position. A slight tilt to the side can result in a false reading.





Periodic Maintenance

Engine Oil Replacement (see our video at flyscooters.com)

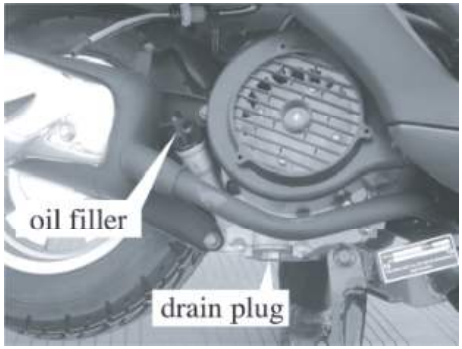
Replace engine oil after the initial 300 miles. Thereafter, replace engine oil every 1000 miles.

1. Start the engine to warm up for a few minutes. While the engine is warming up, check for oil leaks. If oil leaks arefound, stop the engine immediately and identify the source of the leak.

2. If no leaks are found, stop the engine. Place an oil pan under the engine. Remove the drain plug as shown in the picture. Allow sufficient time for oil to drain completely from the engine.

4. Clean the oil filter with solvent. Reinstall the filter and tighten the drain plug.

5. Fill the engine with high quality 10W-40 motorcycle oil through the dipstick mouth.



Periodic Maintenance

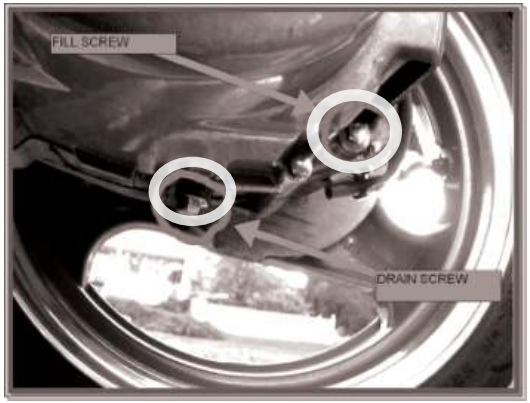
Gear Oil Replacement (see our video at flyscooters.com)

Replace the gear oil after the first 300 miles. Thereafter, replace gear oil again every six months or 1,000 miles, whichever occurs first.

1. Put the scooter securely on the center stand. Place an oil pan under the gear case.
2. Remove the filler screw and the drain screw.
3. Allow oil to drain completely. Replace the drain screw.
4. Refill the gear case with 75W-90 weight gear oil and replace the filler screw.
5. Start the engine and check for leaks.

⚠ Caution

Do not let foreign material enter the gear case. Wipe off any oil spilled on tire or wheel.



Air Filter Cleaning

The air filter affects the performance and fuel consumption of your scooter. Keep it clean! It should be cleaned at intervals specified in this owner's manual, or sooner depending on riding conditions.

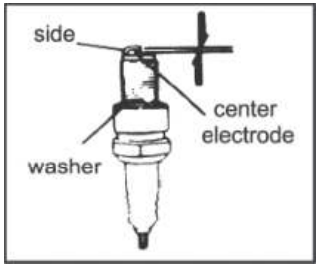
1. Place the scooter on the center stand.
2. Remove the left side panel by removing the screws.
3. Remove the air filter cover by removing the screws on it.
4. Remove the air filter element. Wash it gently but thoroughly in solvent, do not use water. Replace air filter if it is damaged.
5. Squeeze out excess solvent and dry.
6. Reinstall the air filter and air filter cover.

Spark Plug Inspection

The spark plug is an important engine component. The condition of the spark plug can indicate the condition of the engine. Therefore, you should periodically inspect it for signs of deterioration.

Deposits around the electrode area cause the spark plug to slowly break down and erode. You should replace the spark plug if there are signs of wear.

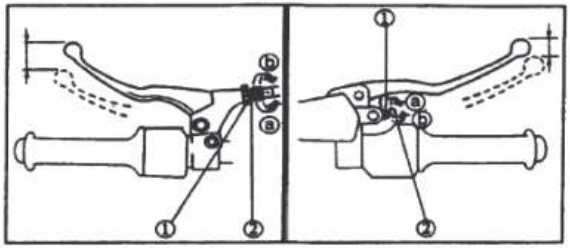
Before installing the spark plug, adjust the gap to 0.8mm with a gauge for best performance. An incorrect gap can cause damage to the scooter's engine.



Spark plug gap: 0.8mm

Periodic Maintenance

Brake Lever Free Play Adjustment



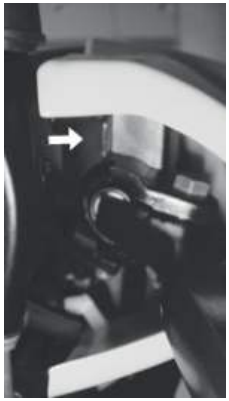
1.Locknut 2.Adjusting bolt

The front and rear brake lever free play (before brake engages) should be adjusted to 2-5 mm at the brake lever's end.

Loosen the locknut and turn the adjusting bolt clockwise to increase free play, counter clockwise to decrease free play. Be sure to tighten the locknut after adjustments.

Inspection of Brake Fluid Level

Insufficient brake fluid may allow air to enter the brake system, which causes the brakes to become ineffective. Before riding, check that the brake fluid is above the minimum level. Fill when necessary.



When checking the brake fluid level, make sure the reservior is level. Use only DOT4 brake fluid when refilling. Incorrect brake fluid will cause the rubber to deteriorate, thus causing leakage and poor brake performance. Water and other foreign objects should not enter into the brake fluid system.

Brake fluid deteriorates painted surfaces and plastic. Therefore spills hsould be cleaned up immediately. If experiencing frequent low brake fluid levls, see an authorized Flyscooters dealers.

Brake Fluid Replacement

A complete brake fluid flush should be done only by trained personnel at authorized Flyscooters dealerships.

The following components should be replaced during periodic maintenance checks or when they become damaged.

a. Replace all rubber seals every 2 years.
b. Replace all hoses every 4 years.

Recommended lubricant: DOT4

Center and Side Stand Lubrication

Lubricate the pivoting joints, while checking to see that the center and side stands move up and down smoothly.

Check the torque of screws. Make sure the stands are securely tighted to the frame. Apply blue *Locktite* to kickstand bolts on initial check of scooter.

Recommended Lubricant:
Lithium based grease



Side stand



Center stand

Front Fork Inspection

Visual Check:
Place the scooter securely on the center stand for support and see if the forks are straight.

Operation Check:

1. Place the scooter on a level surface.
2. Hold the scooter in an upright position and apply the front brake.
3. Push down hard on the handlebars several times and check that the front forks rebound smoothly.

If any damage, oil leakage or jerky movement is found with the front forks, contact an authorized Flyscooters dealer for repair.



Periodic Maintenance

Steering Column Inspection

The condition of the steering column should be inspected periodically because worn-out or loose steering bearings may be dangerous. Place the scooter securely on the center stand. Raise the front wheel off the ground. Hold the lower end of the front forks and move them forward and backward. If any free-play can be felt, ask an authorized Flyscooters dealer to inspect and adjust the steering.

Wheel Bearings Inspection

Place the scooter securely on the center stand. Rotate the front and the back wheel. Check to see if there is any free play in the wheel hub, or if the wheel does not turn smoothly. Consult an authorized Flyscooters dealer if any abnormality is found.

Fuse Replacement

If the scooter does not have any electrical response when the main is switch is turned on, the first thing you should check is the fuse. The fuse is found beside the battery, underneath the seat cushion, inside a small plastic casing. Turn off the main switch, check fuse for broken wire and remove the bad fuse. Your scooter is equipped with a spare fuse also inside the small plastic casing. Insert new fuse making sure its tight. If there is no spare fuse, you can purchase fuses from your authorized Flyscooters dealer. Be sure to use a 15A fuse. If fuse blows, contact your dealer.





Note:

Do not use fuses of higher amperage rating than 15A. Subsitution of fuse with improper rating can cause extensive electrical system damage and possibly a fire.

Battery

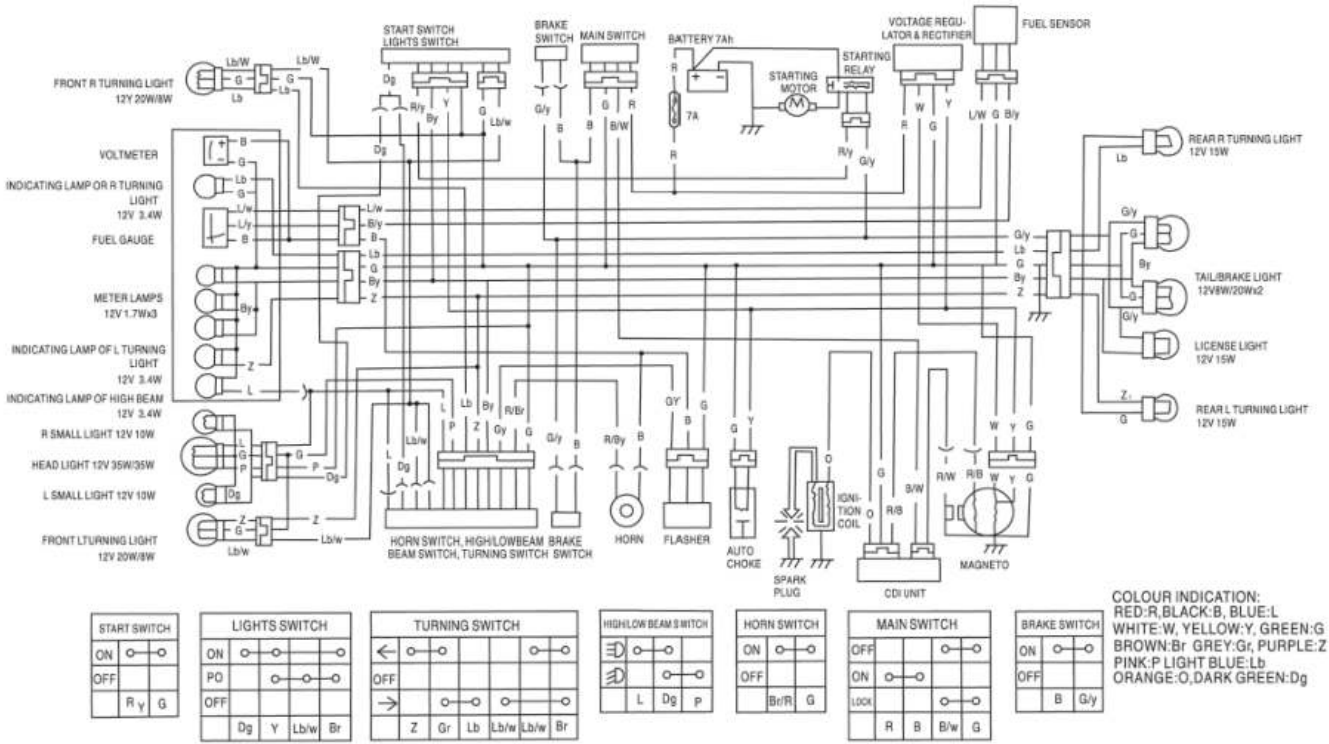
This scooter uses a sealed and non-replenishable type of battery. It is unnecessary to check or add liquid.



Turn the main switch to "OFF" position before removing the battery. Avoid storing battery in areas with live fire or intense heat.

The battery will lose its charge if the scooter is not operated for an extended period of time. Remove the battery from the scooter when you do not plan to ride your scooter for more than a month.

Electric Circuit Diagram



FLY SCOOTERS