



Owner's Manual

LF12W4 / LF18W3

Joyride
125i 200i 



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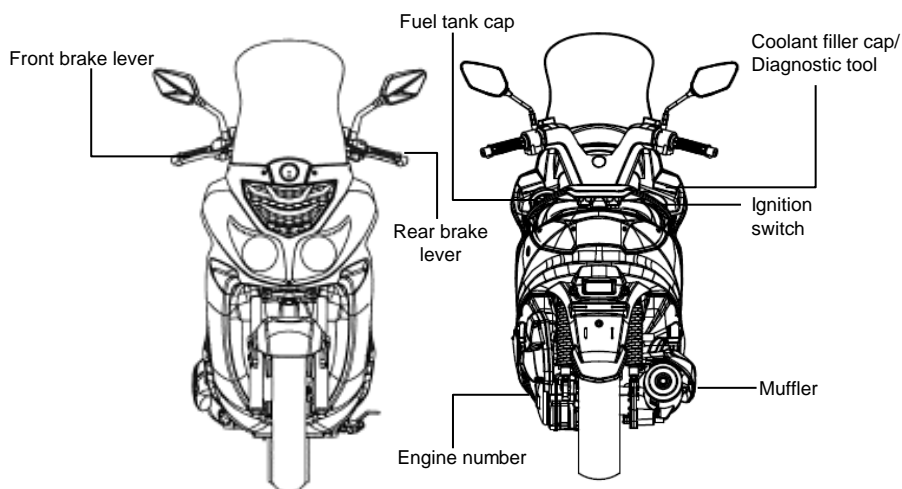
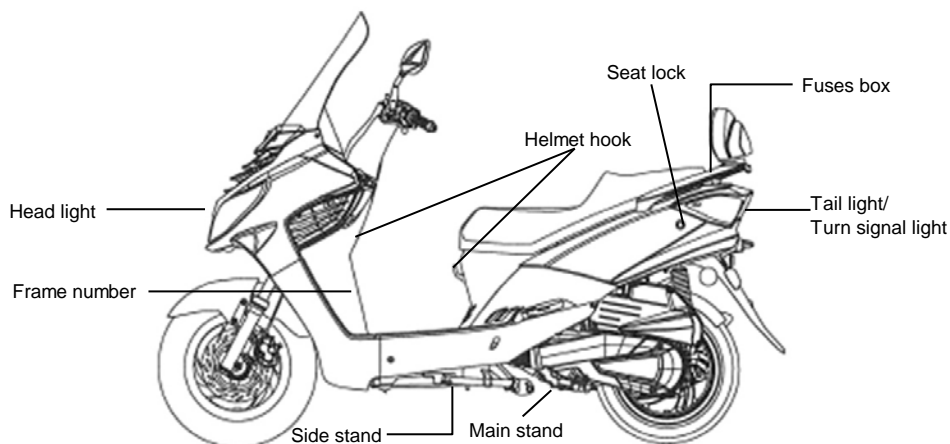
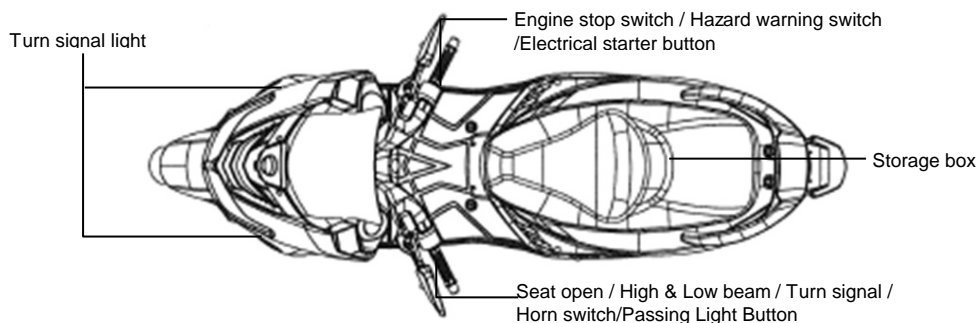


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2. Control Location



3. Before Riding

This manual describes the correct usage of this scooter including safety riding, simple inspection methods and so on.

For a more comfortable and safety riding, please read this manual carefully.

For your benefit, please ask your **SYM** dealer the operating manual and carefully read the following:

- Correct use of the scooter.
- Pre-delivery inspection and maintenance.

Thank you very much for your patronage

In order to maximize your scooter's performance, a periodical inspection and maintenance should be completely carried out.

We recommend that after riding your new scooter for the first 300 kilometers, you should take your scooter to the original dealer for an initial inspection, and to have your scooter inspected periodically every 1,000 kilometers thereafter.

- In case the scooter's specifications and construction are modified and different from the photos and diagrams on the owner's manual / catalogues, the specifications and construction of the actual scooter shall prevail.

4. SAFE RIDING

It is very important to be relax and clothe properly when driving, observe traffic regulations, do not rush, always drive carefully and relaxed.

Usually, most people would ride their newly bought scooter very carefully, but after they became familiar with their scooters, they tended to become reckless which may result in an accident.

To remind you:

- Please wear a safety helmet, and properly tighten the chin belt when riding a scooter.
- Clothes with open or loose cuffs may be blown by wind and cause the cuffs to get caught on the steering handle and thus affects riding safety.
- So, put on clothes with tight sleeves.
- Hold the steering handle by both hands when riding. Never ride with only one hand.
- Observe the speed limit.
- Wear suitable low-heel shoes.
- **Perform periodical maintenance and inspection in accordance with the schedule.**



WARNING!!

- To avoid getting burned by exhaust pipe when taking a passenger. Make sure your passenger has put his/her feet on the pedals.
- After running, the exhaust pipe is very hot, be careful not to get burned when conducting an inspection or maintenance.
- After running, the exhaust pipe is very hot, select a suitable location to park your scooter to avoid others getting burned by the exhaust pipe.



CAUTION:

Modified scooter will affect its structure or performance, and cause poor engine operation or exhaust noise, which will result in shortening the scooter's service life.

Besides, modification is illegal and does not conform to the original design and specifications.

A modified scooter will not be covered by warranty, therefore, do not modify your scooter at will.



5. Driving

Keep the related parts of your body such as arms, palms, lumbar, and toes relax and ride with the most comfortable posture in order to be able to react quickly whenever it is necessary.

- Rider's posture will greatly affect riding safety. Always keep your body's gravity in the center of the saddle, if your body's gravity is on the rear part of saddle, the front wheel load will be reduced, and this will cause the steering handle shaking. It is dangerous to ride a scooter with an unstable handle.
- It will be much easier to make a turn if rider inclines his body inward when turning. On the other hand, the rider will feel unstable if his body and the scooter do not incline.
- The scooter is hard to control on a bumpy, unleveled, unpaved road, try to know the road conditions in advance, slow down and use your shoulder's force to control the handle.
- Suggestion: Do not load objects on the front pedals unnecessarily, to avoid affecting the riding safety and the operation of steering handle.



CAUTION:

The rider's feeling on the handle is slightly different with a load or without a load. Overload may cause the handle to swing and affects the riding safety. Therefore, do not overload your scooter.



CAUTION:

- Do not place flammable materials such as rags between the body side cover and engine to avoid components damaging by fire.
- Do not load objects on areas not specified for loading to avoid damage.

SUGGESTION

To maximize the scooter's performance and prolong its service life:
The first month or first 1000km is the wear-in period for the engine and components.
Avoid rapid acceleration, and keep the speed below 60km/hr.

6. USE GENUINE SPARE PARTS

In order to maintain the scooter's best performance, each part's quality, material, and machined precision must conform with the design requirements. “**Genuine Spare Parts**” were made from the same high quality materials used for the original scooter. No parts would be sold to the market until they could meet the designed specifications through sophisticated engineering and stringent quality control. Therefore, it is necessary to purchase “**SYM Genuine Spare Parts**” from “**SYM Authorized Dealers or Franchised Dealers**” when replacing spare parts. If you buy cheap, or fake substitute parts from the market, no guarantee can be provided either for the quality or durability. Also, it may result in unexpected troubles and lower the scooter's performance.

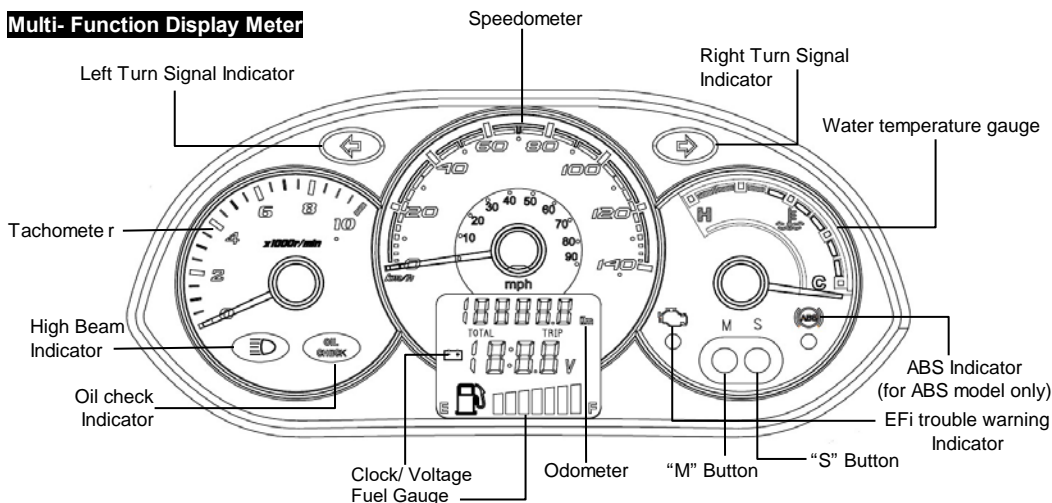
- Always use **SYM Genuine Spare Parts** to keep your scooters pure blood and to ensure its long service life.

7. Use of Each Component

7. Use of Each Component

(The following is SYM 4 stroke liquid cooling scooter's basic operation, and they could vary from different individual models. Please consult the end of this manual.)

Multi-Function Display Meter



CAUTION :

- Not to have trouble on electrical meter working, or damage the electrical meter.
- Do not wipe plastic components, e.g. instrument panel, headlight, with organic solvents such as gasoline...etc. to avoid damaging these components.

• Speedometer:

This shows your speed in kilometers and miles per hour (Outer ring for Km/h, inner ring for MPH).

• Odometer :

This odometer shows the total kilometers this scooter has been driven.

• High Beam Indicator(blue) :

This indicator comes on with high beam headlight is turned on.

• Turn Signal Indicator(green) :

The left or right Indicator will be flashing according to the operated directions of turn signal light switch when it is turned on.

• Fuel Display :

The fuel gauge doesn't come on when the main switch is at "OFF" position.

The fuel display frame is a seven-segment from D1 to D7 LCD bars to indicate the amount of fuel in the tank. The fuel tank indication displays correctly when key switch is turned to "ON", and indication change by steps in sequence. The LCD bars will disappear as the fuel level decreases. When the D1&E& is lit, refuel as soon as possible. D1 is on the fuel reserve position, remind you of avoiding becoming stranded without fuel.

Voltage display :

When key switch is turned to "ON", LCD show voltage function for 10 seconds first, and then change to "TIME" mode.



• ABS indicator light:(for ABS Model only)

Normally the ABS (Anti-lock Brake System) indicator light goes on when the ignition switch is turned on and goes off shortly after the scooter starts moving. If the ABS is normal, it stays off. If something is wrong with the ABS, the indicator goes on and stays on. When the indicator light is on, the ABS does not function but if the ABS fails, the conventional brake system will still work normally.

• Water temperature gauge

To indicate engine coolant temperature.

When the main switch turns to "ON", the pointer indicator should be below the (H) position when the scooter is running.

If the pointer indicator stays above (H) position. Please check the coolant level of spare coolant tank and check cooling radiator fan equipped for proper operation. Do not continue to run the engine if it is overheating.



CAUTION:

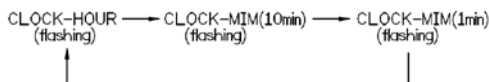
The indicator will stay above (H) position when engine is run under high temperature for a long period of time. In this case, the only way to cool the engine is to stop the engine.

• Function setting

There are two buttons on the speedometer, explanation as below :

1. "S" button :

- In normal mode, press "S" button shortly to change between "TOTAL" & "TRIP" displays.
- In "TRIP" display mode, press "S" for 2 seconds to reset the trip readings.
- Under "TOTAL" mode and the vehicle is standing still, press "S" for above 2 seconds to enter CLOCK mode. Press "S" button shortly to increase the hour readings, once per one time. Then press "S" for 2 seconds to enter tenth minute setting. Increase the tenth minute readings by pressing "S" button once per one time. Again press "S" for 2 seconds to enter unit minute setting. Increase the unit minute readings by pressing "S" button once per one time. Press "S" button for above 2 seconds to exit "CLOCK" mode.



2. "M" button :

- The **oil check** indicator will light in every 1,000 km, to warn the user to check (change) engine oil. When the **oil check** indicator lit, press "M" button for above 2 seconds **oil check** light off.
- Key on and press the "M" button shortly to switch from clock and voltage gauge.

• EFI trouble warning Indicator

When turn the main switch key to "ON", this warning indicator will come on and then go off after the engine is running. It displays the condition of the EFI system is working correctly. If there is any problem on the EFI system, the warning indicator will remain on all the time or does not come on. Please contact with a SYM dealer to check the self-diagnosis system or electrical connections.

• Oil Check indicator

Oil Check indicator is for showing engine oil inspection / replacement time. When the vehicle is ridden for approximately 5,000 kilometer, engine oil indicator illuminates which means engine oil inspection or replacement is needed. Press "M" (Oil Reset) button to reset engine oil used mileage. Engine oil indicator goes off when the "M" button is pressed and the engine oil used mileage will be recalculated from the current riding mileage. Engine oil level should be checked every 1,000 kilometer and replaced every 5,000 kilometer.

7. Use of Each Component

OPERATION OF IGNITION SWITCH

ON

"Start" position

- Engine can be started in this position.
- Ignition switch key can not be removed.

OFF

"Stop" position

- Engine is shut off and can not be started in this position .
- Ignition switch key can be removed.

LOCK

"Steering handle lock" position

- Turn the steering handle to left and press ignition switch key down and then lightly turn it to left to the "LOCK" position.
- The steering handle is locked in this position.
- Ignition switch key can be removed.
- When unlocking, simply turn the key from "LOCK" to "OFF."



" fuel tank cap open " position

- How to open : Insert your key into the ignition switch, and turn it to the left.
- How to lock : Push the fuel tank cap and it locks automatically.

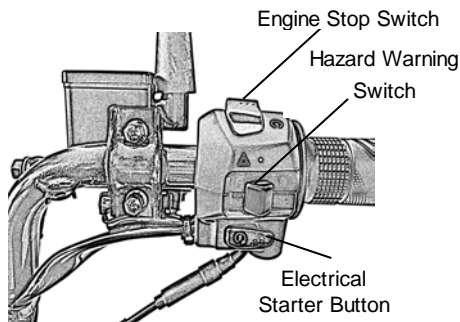
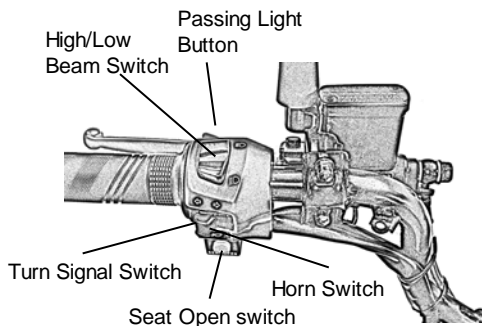
IGNITION SWITCH



CAUTION:

- Never operate the ignition switch key when the scooter is running. To turn the ignition switch to "OFF" and "LOCK," will shut off the electrical system and that may result in a dangerous accident. Therefore, the ignition switch can only be turned off after the scooter has been completely stopped.
- Always remove the key and be sure to take the key away with you after locking the steering handle before leaving your scooter.
- If ignition switch remains in the "ON" position for a prolonged period after the engine has been stopped, the battery's capacity will be reduced and this may affect the engine's start ability.

USE OF BUTTONS



• Engine Stop Switch



Switch to this position to turn off the engine when a state of emergency.



Switch to this position and the engine can be started.

• Hazard Warning Switch



With the main switch in the "ON" position, this hazard switch with triangular symbol can be operated.



7. Use of Each Component

When this button is shifted, all four indicators (front and rear-right and left) begin to blink simultaneously, and direction indicators on the instrument panel also flash at the same time. But when winker switch is operated in this condition, it will return to signal flash function in order of precedence.. When you are experiencing a sudden vehicle problem in the middle of traffic or the vehicle has broken down, switch on the lights and slowly pull over, keep the lights flashing till the problem is solved. Shifting the hazard switch again cancels this feature. The hazard lights only can be switched off when the main switch is in the "ON" position.

• Electrical Starter Button



This is a starting motor button (switch) for engine starting.

With the main switch "ON", press this button while holding the front or rear brake lever will start the engine.



CAUTION:

- Release this button immediately after engine has been started, and never press the button again to avoid damaging the engine.
- This mechanism is a safety design. The engine can only be started after the front or rear brake lever (pedal) has been applied.
- Do not use light system. Turn headlight and turn signal lights to the "OFF" position when the engine is being started.

• Automatic Lighting Connections

Turn the main switch on "ON", at the same time, the electrical connections of lights will be connected automatically, including LED daytime running lamps 、 low beam headlights 、 rear position lamp and rear-registration plate illuminating cannot be switched ON or OFF otherwise than simultaneously.

• Passing Light Button

When pushing the passing light button **PASS**, the high beam indicator light goes on to signal the driver of the vehicle ahead that you are about to pass. The passing light is shut off as soon as the button is released.

• High/Low Beam Switch

This is the high and low beam of headlight switching switch. Press this switch to switch between high and low beams.



This is for high beam.



This is for low beam. (Please turn to low beam when riding in city)



CAUTION:

- Automatic Lighting Connections are powered by battery, and therefore be aware of keeping main switch on "ON" will run out of the battery without running the engine.

• Seat open Button



Turn ignition switch "ON" and press this button down. Then, the seat will unlock immediately.

This button will return to original position after releasing.

• Horn Switch



Press this button down when ignition switch is in the "ON" position, the horn will sound.



CAUTION:

Do not press this button when you are in the area where there's no honking.

7. Use of Each Component

• Turn Signal Switch

Turn signal lights are used when turning left/right or changing lane.

Turn ignition switch to "ON", and slide the turn signal switch to left or right. Then, the turn signal lights will flash.

To release, simply return the turn signal light button to the original position.



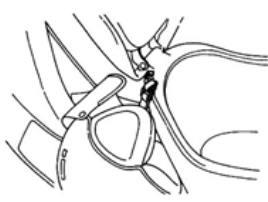
Right-side turn signal light flashing means you intend to make a right turn.



Left-side turn signal light flashing means you intend to make a left turn.

SAFETY HELMET HOOK

- Hang helmet from chin strap or from D-Rings buckle onto the hook securely.



CAUTION:

- Do not hang the helmet onto this hook when you are riding to avoid damaging scooter body cover and losing helmet's function.

SEAT LOCK

• Unlock:

Insert the ignition switch key and turn to left to unlock.

• Unlock:

Push "Seat open" button down when ignition switch is in the "ON" position, the seat can be unlock.

• Lock:

Push the seat down and it will be locked automatically.

After the seat has been locked, check it again to make sure it has been locked securely by lightly lifting the seat.

CAUTION:

- Do not put the key inside the luggage box after unlocking to avoid the key being locked inside the luggage box when the seat is pressed down automatically.
- Be sure to remove the key after the seat has been locked.

LUGGAGE BOX

- This box is located under the seat.
- Maximum load capacity: 10kg.
- Do not store valuables in the luggage box.
- Make sure that the seat has been locked completely after it was pressed down.
- Take out valuables before washing it to avoid wetting these objects.
- Do not put any fresh products in the luggage box because of engine's heat and high temperature.

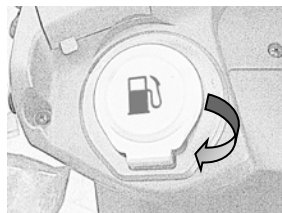
CAUTION:

- Make sure to take the key away with you before you lock your seat.



FUEL TANK CAP

1. Insert ignition switch key into the ignition switch, and turn the key to the left, then the cap can be opened automatically.
2. Do not fill above the fuel upper limit when refueling.
3. Push the fuel tank cap and it locks automatically.



CAUTION:

- Main stand should be put down on the ground, engine should be shut off and flames should be strictly prohibited to ensure safety when refueling.
- Do not fill above fuel upper limit when refueling. Otherwise, fuel will flow out through a hole on the cap that may damage the body's painting, in serious cases, it may cause a fire to burn down the scooter.
- Make sure the cap has been tighten properly.

USB POWER OUTLET

The USB power outlet is located on the front panel.
This power outlet can charge low power consumption devices when the engine is running.



NOTE :

- Do not use the USB power outlet when the engine is not running.
- To prevent the fuse to melt down, do not charge devices exceed 10 W.
- Disconnect devices when leaving the scooter or after riding, and close the USB power outlet cap securely to avoid water infiltration.

BRAKE

Pull the right brake lever to operate the front brake.

Pull the left brake lever to operate the front and rear brake simultaneously (CBS model).

Pull the left brake lever to operate the rear brake (ABS model).

- Avoid unnecessary sudden braking.
- Use front and rear wheel brakes simultaneously when braking.
- Avoid brake continuously for a long period of time because that may overheat the brakes and reduce its braking efficiency.
- Slow down and brake early when riding in rainy days on slippery roads. Never apply the brakes suddenly to prevent skidding and falling.
- Using only the front brake increases the risk of falling because the scooter is tend to pulled to one side.
- Even in motorcycles equipped with ABS, braking during cornering may cause wheel slip. When turning a corner, it is better to limit braking to the light application of both brakes or not to brake at all. Reduce your speed before you get into the corner.

7. Use of Each Component

8. Important Points and Cautions for Starting Engine



ABS model

For Rear Wheel



For Front Wheel



CBS model

For Front Wheel And
Rear Wheel



For Front Wheel



《Engine Brake》

Return the throttle grip back to its original position, and apply engine brake.

It is necessary to apply both brake and engine brake intermittently when riding on a long or stiff slope.



CAUTION:

- Please check the engine oil and fuel volume are adequate or not before starting engine.
- To start engine the main parking stand must be firmly on the ground and the brake is applied on the rear wheel to prevent the scooter from moving forward suddenly.

8. Important Points and Cautions for Starting Engine

Turn ignition switch key to the "ON" position and make sure that the engine stop switch is set to "O".

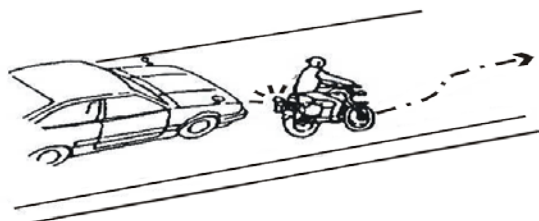
1. Apply the front or rear wheel brake.
2. Do not accelerate, press starter button when the brake is applied.
3. In order for the ignition circuit cut-off system to enable starting, the sides-stand must be up.



[We care for you! Before drive off, keep the hand brake applied on the rear wheel.]

CAUTION:

- If engine can not be started after starter motor running for 3~5 seconds, wait a few seconds, and try again.
- In order to avoid damaging the starter motor, please do not press the starter button continuously over 15 seconds.
- If engine still can not be started after pressing starter button over 15 seconds, stop and wait for 10 seconds before start it again.
- It is harder to get the engine started after the scooter has been left idle for a long time or after refueling only after the fuel has been depleted. Then, it is necessary to press starting lever or starter button several times, and keep the throttle valve handle at the close position to start the engine.
- It may need several minutes to warm up engine if it is a cold start.
- Exhaust contains harmful gases (CO), therefore please start the engine at a well ventilated place.

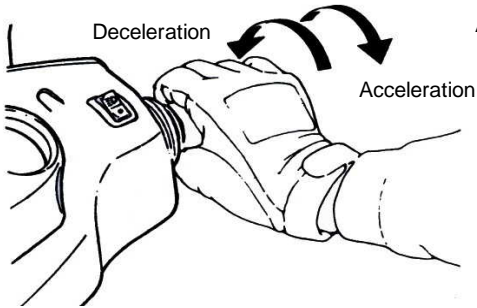


- Turn on the turn signal light before moving let other drivers well aware of that, and make sure no vehicle is coming from behind. Then, drive off and switch the turn signals off, too.

9. The Best Way to drive off

9. The Best Way to Drive off

THE CONTROL OF THROTTLE HANDLE GRIP



Acceleration : To increase speed. When riding on an inclined road, turn the throttle handle grip slowly to allow the engine to output its power.

Deceleration : To decrease speed.

PARKING METHOD

- When approaching the parking lot:
 1. Turn on the turn signal light early, and pay attention to the vehicles in front, from rear, left and right, then take the inner lane and approach slowly.
 2. Return the throttle valve handle back to its original position, and apply brakes in advance. (Brake light comes on when braking to warn drivers of vehicles behind.)
- When stop completely:
 3. Press the turn signal switch back to its original position, and turn the ignition switch key to "OFF" position to shut off the engine.
 4. Get off the scooter from left side after the engine has been stopped, and select a parking place where the scooter will not interfere with traffic and the ground is level, then put down scooter's main parking stand.
 5. Hold the steering handle with your left hand, and hold down the front end of saddle or hold the parking handle on the lower-left side of saddle with your right hand.
 6. Press the main parking stand with your right foot, put down the main parking stand firmly on the ground.

To remind you: Lock the steering handle and remove the key after parking to prevent the scooter from being stolen.



CAUTION:

- Park your scooter at a safe place where it will not interfere with traffic.



10. Inspection and Maintenance Before Riding

(Please refer to the components location diagram for the following components.)

ROUTINE INSPECTION

Check Items		Check Key Points
Engine Oil		Is there enough engine oil?
Fuel		Is it enough? Is it Octane 90 or above
Brake	Front	Braking condition? (Brake lever free play: 20~30mm)
	Rear	Braking condition? (Brake lever free play: 20~30mm)
tires	Front	Is tire pressure normal? (Standard: 1.8kgf/cm ²)
	Rear	Is tire pressure normal? (Standard: 2.5kgf/cm ²)
Steering Handle		Does the steering handle vibrate abnormally or is difficult to turn?
Speedometer, lights, and back view mirror		Is it operated properly? Do lights come on? Can it be seen clearly from behind?
Tightness of Main Components		Are screws, nuts loosen?
Abnormal Points		Do the previous troubles still exist?



CAUTION:

- If any problem founded during routine inspection, correct the problem before using the scooter again, have your scooter checked and repaired by the "SANYANG dealer or authorized service personnel" if necessary.

ENGINE OIL INSPECTION AND CHANGE

INSPECTION:

1. Use the main parking stand to support the scooter on a level ground, remove the dipstick after engine stopped for 3~5 minutes. Wipe oil off the dipstick and then insert it into the guide tube again (Do not rotate it.)
2. Remove the dipstick and check whether oil level is in between the upper and lower marks.

Add oil to upper limit if oil is under the lower limit. (Check cylinder, crankcase...etc for leakage.)

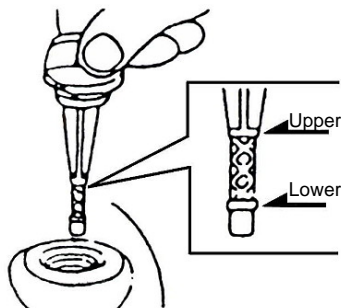
OIL CHANGE:

- Change engine oil after the first 1,000km, and change the engine oil every 5,000km thereafter. Clean oil filter after the first 1,000km, and clean oil filter every 10,000km.
- In order to maintain the engine's maximum performance, check whether the engine oil is enough every 1,000km. Add oil to upper limit if the engine oil has been found to be inadequate.
- Engine Oil : Use API SH, SAE 10w-30/40 or better engine oil. Otherwise, damage will not be covered by warranty.

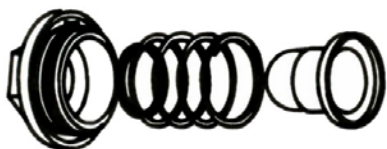
※Recommended Oil: **SYM** Genuine "**SYMOIL**"

Engine Oils .

- Oil Capacity : 1.0 Liter (0.8 liters for routine change), oil filter change: 0.8 liters.



10. Inspection and Maintenance before Riding



【Oil Filter Cleaning】

Open the filter nut assembly of the element, and remove the element. Remove the foreign materials from the element by using gasoline and air compressor dust removing gun.

WARNING:

- Oil level will not be correct when checking the oil level with the scooter parked on an unlevelled ground or immediately after the engine stopped.
- Engine and exhaust pipe are hot right after engine stopped. Pay special attention not to get burned when checking or replacing engine oil.

FUEL INSPECTION

- Turn main switch key to "ON" position, and check fuel gauge's needle range to make sure there is enough amount of fuel in the fuel tank.
- This scooter's engine is designed for using the unleaded fuel of Octane 90 or above.
- Firmly secure the main stand on the ground, shut off the engine and keep flames away from the scooter when refueling.
- Do not fill above fuel upper limit level when refueling.
- Make sure the fuel tank cap had been tighten properly.
- Ethanol in gasoline can not be more than 10%.

TRANSMISSION OIL INSPECTION AND CHANGE

INSPECTION:

- Use the main stand to support the scooter on a level ground, after the engine stops, wait for 3~5 minutes. Remove the transmission oil infusion bolt, put a measuring glass under the drain bolt, and remove the drain bolt. Let the oil flows into measuring glass and check for decreased or not. (at disassembly: 110 cc. / at change: 90~100 cc.).

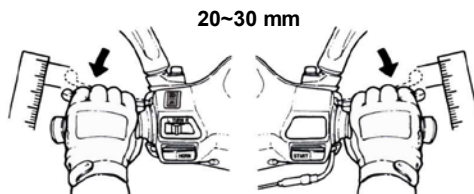
OIL REPLACEMENT:

- Stop the engine and use the main stand to support your scooter on a level ground. Remove the infusion bolt and drain bolt, drain out the oil.
 - Install the drain bolt and tighten it. Fill new transmission oil (90~100 cc.), and install the infusion bolt and tighten it. (make sure that bolts are tightened and check that there's no leakage.)
- ※Recommend Gear Oil: **SYM** Genuine "SYMOIL" series Gear Oil (SAE10W-30/SAE85W-90).

INSPECTION AND ADJUSTMENT OF BRAKE FREE PLAY

INSPECTION: (Brake lever free play must be checked with the engine shut off.)

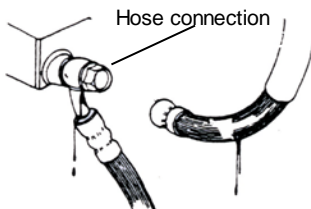
- Brake lever free play for front and rear wheels
When checking the hand-braking lever for front and rear wheels, its freeplay (the stroke of hand-braking lever from no braking to initial braking) should be 20~30mm. It is abnormal if the feel is spongy when holding the hand-braking lever forcefully.



DISK BRAKE INSPECTION (Applicable for model equipped with disk brake.)

(Leak, damaged, looseness of brake line)

- Visual check brake lines for leakage, or damage, check brake lines connections for looseness using a wrench or similar tool, and check whether steering handle vibration in driving, or any parts' interference may have damage the brake lines. If so, bring your scooter to your SANYANG dealer for repairing or service.

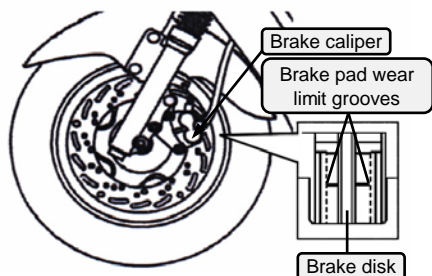


CAUTION:

- Please drive your scooter on a dry road surface slowly and operate front and rear brakes in order to find out if there is any malfunction so as to ensure the scooter is at its optimum condition and safe to ride.

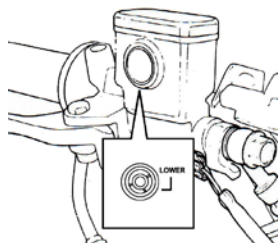
(Checking front brake lining)

- Check the brake from behind the brake caliper. The brake pad must be replaced with new lining when the brake pad wear limit reaches the brake disk.



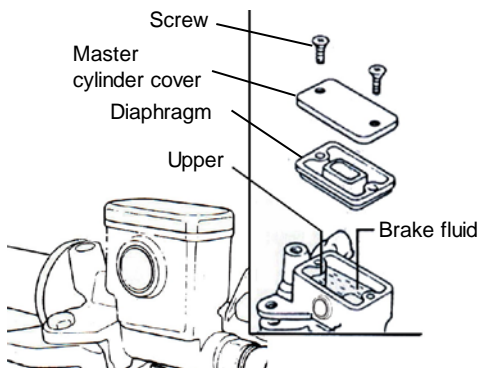
(Checking oil quantity in brake oil reservoir)

- Park the scooter on a level ground, and check if fluid level is under the "LOWER" mark. Recommended Brake Fluid: BRAKE OIL (DOT 3 or DOT 4).



(Replenishment of front wheel brake fluid)

1. Loosen the screws and remove the master cylinder cover.
2. Wipe clean foreign materials, dirt around the reservoir, being careful not to let foreign materials fall into the reservoir.
3. Remove the diaphragm plate and the diaphragm.
4. Add brake fluid to upper level.
5. Install the diaphragm plate and the diaphragm, and install the master cylinder cover.
6. Please note the diaphragm direction, and do not let foreign materials fall into the reservoir. And tighten the master cylinder cover securely.



CAUTION:

- To prevent chemical reaction, please do not use brake fluids other than those recommended.
- Do not fill above the upper limit when adding brake fluid and avoid dropping on painting or plastic components to prevent damage.

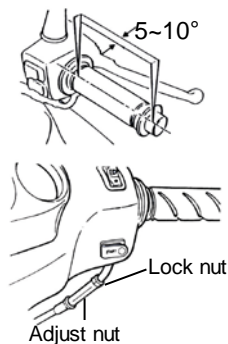
THROTTLE VALVE HANDLE CLEARANCE ADJUSTMENT

Correct clearance allows throttle valve handle to rotate 5~10°.

- Loosen the lock nut first, then turn the adjust nut to adjust.
Tighten the lock nut securely when finished.

Check Items:

1. Check throttle valve cable to see if it can be moved smoothly from a closed position to a wide open position.
2. Rotate steering handle from side to side to check if the throttle valve cable is interfered.
3. Check to see if the throttle valve cable is obstructed by other cables preventing it from being operated smoothly.





INSPECTION AND MAINTENANCE OF BATTERY

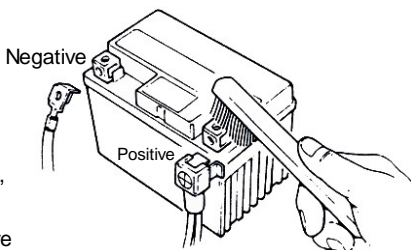
- This scooter is equipped with a maintenance-free type battery, so it is unnecessary to check and add electrolyte. Have your scooter checked by SANYANG Authorized Dealer or Franchised Dealer should any abnormality is found.

(Cleaning of battery terminals)

Remove the battery terminals and clean if there are dirt and corrosion on them.

Battery removal procedures are as follows:

Turn ignition switch "OFF", then open the battery cabinet door, and remove negative cable screw firstly and disconnect the negative cable. Then, remove positive cable screw and positive cable.



CAUTION:

- Clean the battery posts with warm water if the posts are eroded and have some white powders on them.
- If there is an obvious erosion on the terminals, disconnect the cables, then clean the erosion off with a steel brush or a piece of sandpaper.
- Install battery cable after cleaning and apply a thin coat of grease on the terminals.
- Install battery in reverse order of removal.

- This scooter is equipped with a maintenance-free type battery, so it is unnecessary to check and add electrolyte. Have your scooter checked by SANYANG Authorized Dealer or Franchised Dealer should any abnormality is found.

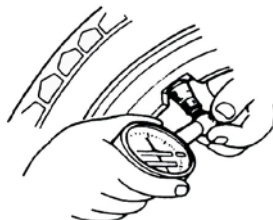
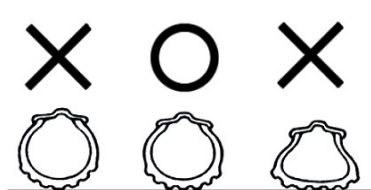


CAUTION:

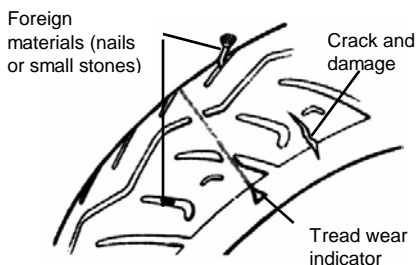
- This is a closed type battery. Never remove the caps.
- In order to prevent electric leakage and self-discharge when the battery sits idle for long periods. Remove battery from scooter, store it in a well-ventilated and dimly lighted place after the battery has been fully charged. Disconnect battery's negative cable if the battery is still kept on the scooter.
- If the battery needs to be replaced, replace with a same closed-type battery (Maintenance-Free).

TIRE INSPECTION

- Tires should be checked and inflated with the engine shut off.
- If a tire's ground contacting curve is abnormal, check it with an air pressure gauge and inflate it to the specified pressure.
- Tires pressure must be checked with an air pressure gauge when cold.



PLEASE REFER TO SPECIFICATIONS FOR STANDARD TIRE PRESSURE



- Visual check tires for frontal and lateral side walls for crack or damage.
- Visual check tires for any nails or small stones wedged in the tread.
- Check the "tread wear indicator" condition to see if tread groove depth is insufficient.
- A tire with a wear bar showing is worn out and should be replaced immediately.

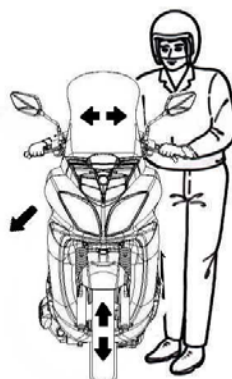


CAUTION:

- Abnormal tire pressure, wear, or crack is the most important cause that results in the loss control of the steering handle and a punctured tire(s).

STEERING HANDLE FRONTSHOCK ABSORBERS INSPECTION

- Perform this check with engine shut off and ignition switch key removed.
- Visual check front shock absorbers for damage.
- Operate steering handle up and down, and check front shock absorbers for noises due to bends.
- Check the bolts and nuts of front shock absorbers with wrenches for tightness.
- Shake steering handle up & down, left & right, and front & rear to check if it is loosen, has too much resistance and pulls to one side.
- Check steering handle if it is being pulled too tight by the brake cables.
- Take your scooter to **SYM** Authorized Dealer or Franchised Dealer for a check or adjustment if any abnormal conditions are found.

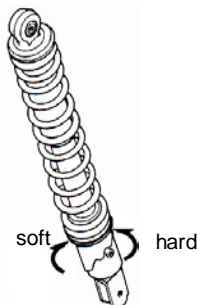


REAR CUSHION HARDNESS SETTING

The rear cushion is 5 stage adjustable type. It's set at 3th stage when manufactured, and you can adjust it depending on your need. Turn the adjust collar of the cushion to adjust it's hardness.

CAUTION:

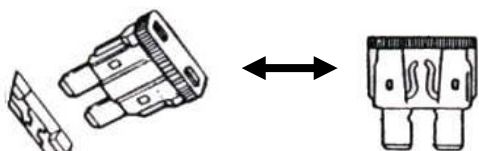
- Turn counterclockwise to harden it, and turn clockwise to soften it.
- Mark sure adjust both cushion at the same time to be sure the riding stability.



CHECKING AND CHANGING FUSES

Turn the main switch off and check if the fuse blows. Replace the blown fuse with the specified fuse. Do not use a fuse of a different capacity. Do not use copper wire or any other substitute for the fuse.

- Remove the storage box, and you'll find the fuse box near light.
- Open the fuse box cover, and pull out the fuse. Check it for damage or broken.
- Fuses must be firmly secured with wire connectors when replacing. Loose connections will result in overhead and damage.
- Use only parts having the specified specification to replace electrical components such as light bulbs. Using parts not having the specified specifications for replacement may cause the fuse to blow and over-discharge the battery.
- Avoid spraying water directly on or around fuse box when washing the scooter.
- Take your scooter to your dealer for an inspection if a fuse is blown by unknown causes.



Burned fuse

CHECKING THE TURN SIGNAL LIGHTS AND HORN

- Turn the ignition switch key to "ON" position.
- Turn on the turn signal light switch, and make sure that the front & rear and left & right signal lights flashes and also check if the warning buzzer sounds.
- Check turn signal light covers if they are dirty, crack, or loosen.
- Press horn button to check if it works.



CAUTION:

- Specified specification bulbs should be used for turn signal lights. Otherwise, the normal operation of turn signal lights will be affected.
- Turn on the turn signal light before turning or switching lane to warn driver of vehicles behind.
- Turn off the turn signal light immediately by pressing its button down after using. Otherwise, the flashing of twin signal lights may confuse the drivers of vehicles behind.

CHECKING THE FRONT AND REAR LIGHTS

- Start engine and turn on the head lamp switch. Check if head lamp and rear lamp come on.
- Check the brightness and direction of front light by wall to see if it is correct.
- Check the head lamp cover if it is dirty, crack, or loosen.

CHECKING THE BRAKE LIGHT

- Turn the ignition switch key to "ON" position, hold the hand-braking levers for front and rear wheels. Check if the brake lights come on.
- Check the brake light cover if it is dirty, crack, or loosen.

CAUTION:

- Use only specified specification bulbs, do not use bulbs with different specifications to avoid damaging electrical system, burning out bulbs, and discharging the battery.
- Do not modify or add other electrical components to prevent over load or short circuit which may result in a fire and burn down the scooter in serious cases.

CHECKING FOR FUEL LEAKAGE

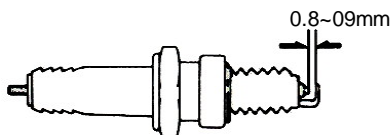
- Check fuel tank, fuel cup, fuel hoses, carburetor for leakage.

CHECING THE LUBRICATION OF BODY'S VARIOUS MECHANISMS

- Check the body's pivot points if they have enough lubrication.
(For example, the pivot points on the main stand, the side stand, and the brake lever...etc.)

CHECKING THE SPARK PLUG

- Remove the cap of spark plug cable (remove the spark plug using the spark plug wrench in the tool kit).
- Check the electrode if it is dirty or fouled by carbon deposits.
- Remove the carbon deposits on the electrode with steel wire, and clean the spark plug with gasoline, then, wipe dry with a rag.
- Check the electrode, and adjust its gap to 0.8 ~0.9mm.
(Check it with a feeler gauge)
- Hand tight the spark plug as far as it can go and then tighten it another 1/2~3/4 turns with a wrench.



WARNING:

The engine is very hot after running. Pay attention not to get burned.

- ※ Use only spark plugs suitable for the engine specifications of this scooter recommended by the manufacturer. (Refer to specifications.)

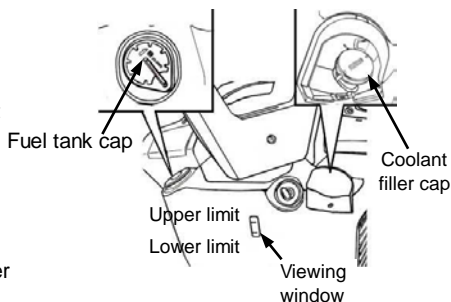
COOLING SYSTEM INSPECTION

(Checking coolant lever)

1. Support vehicle with main stand on a level ground.
2. Check reserved tank from viewing window to see if coolant level is between the upper limit and lower limit mark.
3. Add coolant up to upper mark if coolant is close to the lower mark.

(Check the cooling system for leakage)

- Check radiator and piping for leakage.
- Check the ground where the vehicle is parked for water dripped from the vehicle.

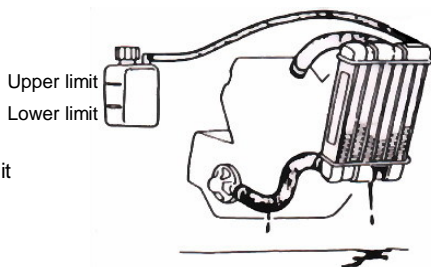




REPLENISHMENT OF COOLANT

Always keep radiator cap tightly closed.

1. Support vehicle on a level ground in a straight up position.
 2. Open the battery cabinet door.
 3. Open surge tank cap, refill coolant until reaches the upper mark.
- If coolant level becomes too low and occurs too often, it may indicate there is something wrong with the coolant system.
 - To avoid radiator getting rusty, do not use coolants other than those recommended.



Coolant recommended: SYM radiator agent

Concentration: 50%

Radiator capacity: Main radiator : 780 c.c.

Surge tank : 420 c.c.



CAUTION:

- Use soft water when mixing coolant.
- Please pay special attention that using poor quality coolant may shorten the service life of the radiator.
- Coolant should be changed once a year normally.



CAUTION:

Please refer to a table showing what percentage of anti-freeze should be used under different temperatures if the vehicle is to be operated in the low temperature areas. (below 0°C)

A reference table for anti-freeze concentration percentages under different temperatures

1. Radiator anti-freeze specification for this scooter is H68. (SANYANG radiator agent)
2. Proper anti-freeze percentages for different frozen temperatures are as follows:

Anti-freeze percentage	Frozen temperature	Remark
20%	-8	50% concentration is used for all scooters before delivery to ensure the effectiveness of anti-freeze.
30%	-15	
40%	-24	
50%	-36	

3. If the specified anti-freeze is unavailable, use an equivalent with the same high quality.
4. Increase radiator maintenance intervals when the weather is extremely cold.

10. Inspection and Maintenance before Riding

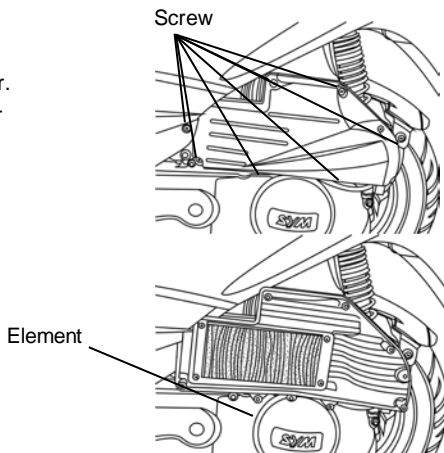
CHECKING THE AIR CLEANER

《DISASSEMBLE PRCEDURE》

1. Remove mounting screws from air cleaner cover.
2. Remove the air cleaner cover, then remove filter element.
3. Take the element out and clean it. (Refer to maintenance schedule.)

《ASSEMBLE PRCEDURE》

- Assemble the air cleaner in reverse order of disassemble.



CAUTION:

- Dust deposit is one of the major causes of reducing output horsepower and increasing fuel consumption.
- Change the air cleaner element more frequently to prolong the engine's service life if the scooter is driven on dusty roads very often.
- If air cleaner is installed improperly, dust will be absorbed into cylinders, which may cause a premature wear and reducing output power and engine life.
- Be careful not to soak the air cleaner when washing the scooter. Otherwise, it will cause engine hard to start.

11. When There Is An Abnormal Condition or a Trouble

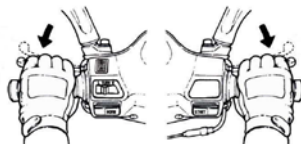
DIAGNOSIS WHEN ENGINE DOES NOT START



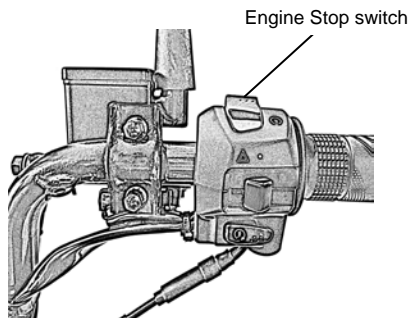
- (1). Has the ignition switch key been turned to "ON" position?



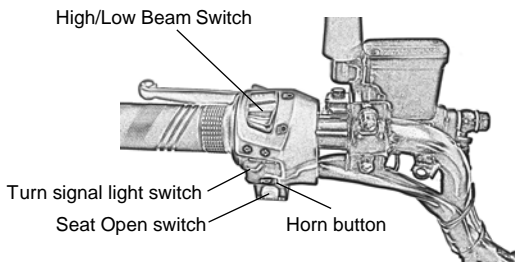
- (2). Is there enough fuel in the fuel tank?



- (3). Is the rear or front wheel brakes applied when pressing starting button?



- (4). Check that the engine stop switch is in the "RUN" position. ?



- (5). Turn the ignition switch key "ON", and press horn button down, if the horn does not sound, the fuse may have been blown.

【 Have your scooter checked by **SYM** authorized dealer or franchised dealer immediately if there are no problems with the above items and engine still can not be started. 】

12. E.C.U. CIRCUIT INTERFACE SYSTEM

- This hardware component consists of a 16-bit microcomputer that is its control center. It contains the functional circuit interface of engine condition sensing and the driving actuator for the fuel injector, fuel pump, as well as ignition coil.

13. SUGGESTIONS ON ENGINE FUEL

- This scooter is designed to use UNLEADED gasoline of Octane No. 90 or higher.
- If the scooter is operated in high altitude (where the atmosphere pressure is lower), it is suggested that the air/fuel ratio should be readjusted to maximize the engine performance.

14. TRANSMISSION OIL

- Recommended Oil: **SYM** Genuine “**SYMOIL**” GEAR OIL (SAE 85W-140)

15. CAUTIONS FOR RIDING SCOOTER

1. Raise the scooter with the main stand, and sit on the saddle.
Push the scooter forwarding to raise the main parking stand.



CAUTION:

- Never rotate the throttle valve handle at will to increase the engine RPM before driving off.

2. Get on the scooter from the left side, and sit on the saddle properly, keep your feet firmly on the ground to prevent the scooter from falling.



CAUTION:

- Apply brake on the rear wheel before driving off.

3. Rotate the throttle valve handle slowly, and then the scooter will begin to move.



CAUTION:

- Rapidly rotate the throttle valve handle may cause the scooter moving forward suddenly and it is very dangerous.
- Make sure the side parking stand is spring back completely before driving off.

【Do not use the brake suddenly and make a sharp turn】

- Rapid braking and sharp turning will cause slip and fall.
- Rapid braking or sharp turning will cause slipping, lateral slipping, or fall especially in rainy days when the road is wet and slippery.

【Drive with extreme caution during rainy days】

- The brake distance in rain day or on wet road will longer than that on a dry road. Therefore, slow down and prepare to apply the brake earlier.
- The throttle valve handle should be released, and the brakes should be properly applied as it is needed while reducing the speed when going down a slope.



16. Periodical Maintenance Schedule

	Maintenance kilometer	Every 1,000km	Every 5,000km	Every 10,000km	Every 15,000km
	Check Items Maintenance Interval	1 Month	3 Months	6 Months	1 Year
1	Air cleaner element*	I	C	R	
2	Oil filter (mesh filter)	I	Cleaning every 10,000km		
3	Engine oil	(initial at 1,000km, second replace at 5,000km and then replace every 5,000km thereafter)			
4	Tire, pressure	I	I		
5	Battery	I	I		
6	Spark plug	I	I		R
7	Carbon Deposit cleaning on Throttle valve	I		I	
8	Steering bearing and handles	I	I		
9	Check Transmission for leakage	I	I		
10	Check crankcase for leakage	I	I		
11	Transmission Oil	(initial replace at 1,000km, and then replace every 10,000km thereafter)			
12	Brake Fluid	I	Replace for every 30,000km		
13	Drive Belt/roller/Drive Pulley			C	R
14	Fuel tank tubes and Fuel filter	I	I		
15	Throttle valve operation and cable	I	I		
16	Bolts and nuts	I	I		
17	Cam Chain	I		I	
18	Valve clearance	I		I	
19	Shock absorbers	I		I	
20	Front/rear suspension	I		I	
21	Main/side stand	I/L		I/L	
22	Crankcase Blow-by system (PCV)	I	C		
23	Coolant	I	I		R
24	Cooling fan, tubes	I	I		
25	Clutch, Clutch outer, Driven pulley			C	
26	Brake mechanism/brake lining (pads) **	I	I		
27	Light, Switches and Electrical system	I	I		

Code: **I** ~ Inspection, cleaning, and adjustment **R** ~ Replacement

C ~ Cleaning (replaced if necessary) **L** ~ Lubrication

* Replace the element every 5000km under dusty environment. Never use compressed air to clean the filter. Replace if necessary.

** Clean and replace the internal component of brake caliper, master cylinder every 10,000km if necessary. Replace brake fluid every 2 years / 30,000km. Replace brake hose every 4 years / 60,000km.

☆ The above maintenance schedule has to be done if either mileage or duration had reached its designated maintenance criteria.

If any problem or question raised about your scooter, please contact your SYM authorized dealer regardless the service schedule.

☆ Have your scooter checked and maintained periodically by your SYM Authorized Dealer or Franchised Dealer to keep the scooter at the optimum condition.

☆ Check and maintain your scooter more frequently if necessary, such as frequently high speed / long distance driving, dusty environment, etc

17. Specification

17. Specification

Item	Model	LF12W4-EU	LF18W3-EU
	Specification		
length		2,100mm	
width		760 mm	
Height		1,410 mm	
Wheel base		1,440 mm	
Net Weight		161 kg	164 kg
Type		4- stroke 4V electroplated ceramic cylinders engine	
Fuel		UNLEADED(OCTANE 92 OR HIGHER)	
Cooling type		Water-cooled	
Displacement		124.9 cc	175.3 cc
Compression ratio		11.3:1	11.0:1
Max. HP		13.9 ps / 9,000 rpm	17.0 ps / 8,250 rpm
Max. torque		1.14 kgf-m / 7,000 rpm	1.60 kgf-m / 6,500 rpm
Starting methods		Electrical starter	
Front shock absorber		TELESCOPIC FORK	
Rear shock absorber		UNIT SWING	
Clutch		Centrifugal type	
Transmission		CVT	
Front tire		110/90-13 56P	
Rear tire		130/70-12 64L	
Wheel		Aluminum alloy	
Tire pressure		Front: STD 1.8kgf/cm²(25psi), Rear: STD 2.5kgf/cm² (36psi)	
Front brake		Disc type (Ø 240 mm)+CBS	Disc type (Ø 240 mm)+ABS
Rear brake		Disc type (Ø 200 mm)+CBS	Disc type (Ø 200 mm)+ABS
Front light bulb(high, low)		12V 55W (H11) x2	
Brake light bulb(tail light)		12V 5W / 21W	
License light bulb		12V 5W	
Turn signal light bulb		12V 21W	
Speedometer light bulb		12V 1.7W	
Engine oil capacity		1.0 L (0.8 L for change)	
Transmission oil capacity		110 cc. (100 cc. for change)	
Fuel tank capacity		7.6 L	
Fuse		20A×2, 15A×2	30A×2, 20A×2, 15A×2
Spark plug		CPR8EA-9	
Battery capacity		12V 8Ah YTX9-BS/GTX9-BS (closed type, maintenance-free battery)	
Air cleaner		Paper type	
Fuel tank cap		Open lock type	
Front light		General type	
Rear grab frame		Can not load cargo	

18. Postscript

Anti-lock brake system

ABS is designed to help prevent the wheel from locking up when hard brakes are applied while running straight. The ABS automatically regulates brake force. Intermittently gaining gripping force and braking force helps prevent wheel lock-up and allows stable steering control while stopping.

Brake control function is identical to that of a conventional motorcycle. The brake lever is used for the front brake and the brake pedal for the rear brake.

Although the ABS provides stability while stopping by preventing wheel lock-up, remember the following characteristics:

- ABS cannot compensate for adverse road conditions, misjudgment or improper application of brakes. You must take the same care as with motorcycles not equipped with ABS.
- ABS is not designed to shorten the braking distance. On loose, uneven or downhill surfaces, the stopping distance of a scooter's with ABS may be longer than that of an equivalent motorcycle without ABS. Use special caution in such areas.
- ABS will help prevent wheel lock-up during straight-up braking, but it cannot control wheel slip which may be caused by braking during cornering. When turning a corner, it is better to limit braking to the light application of both brakes or not to brake at all.. Reduce your speed before you get into the corner.
- The computers integrated in the ABS compare vehicle speed with wheel speed. Since non-recommended tires can affect wheel speed, they may confuse the computers, which can extend braking distance.



CAUTION:

ABS cannot protect the rider from all possible hazards and is not a substitute for safe riding practices. Be aware of how the ABS system operates and its limitations. It is the rider's responsibility to ride at appropriate speeds and manner for weather, road surface and traffic conditions.

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