



OWNER'S MANUAL

GT650/P/S/R/Ei



WARNING

This owner's manual contains important safety information.
Please read it carefully.

This manual should be considered a permanent part of the motorcycle and should remain with the motorcycle when resold or otherwise transferred to a new owner or operator. The manual contains important safety information and instructions which should be read carefully before operating the motorcycle.

BATTERY INITIAL CHARGING

1. BATTERY INITIAL CHARGING

Initial charging of the battery is required after filling electrolyte to improve the battery durability.

2. BATTERY INSTALLATION

- ① Fill the electrolyte to the battery.
- ② Leave the battery for 30 minutes.
- ③ Charge the battery by standard charging. This is necessary for reliability of the battery.
- ④ Install the battery to the motorcycle.

※ **STANDARD CHARGING TIME** : 1.2 A for 10 hours



CAUTION

Do not use the battery without the battery initial charging.
Otherwise the battery service life may be shortened.

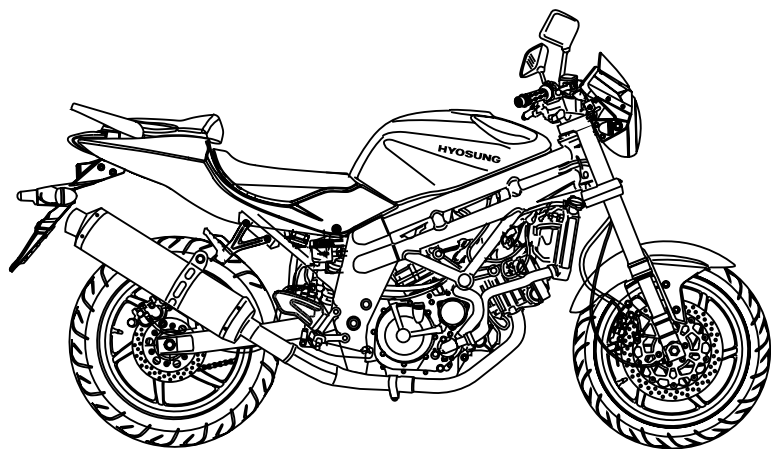


WARNING

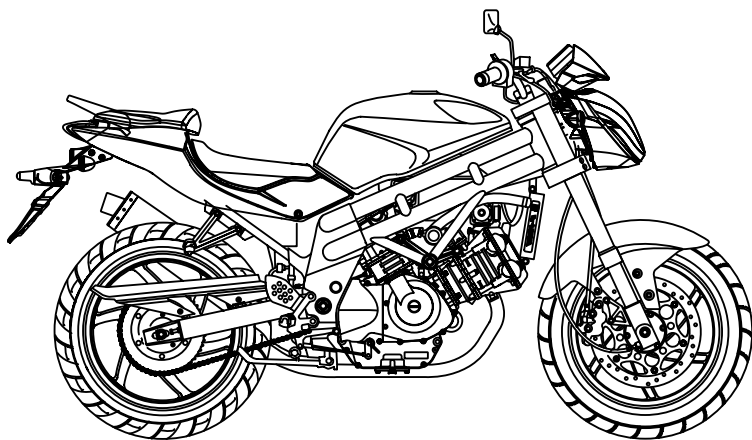
The 「*GT650/PISIREI*」 use a battery ignition system.

Do not permit to start or operate the motorcycle without the battery otherwise the electrical system will be damage.

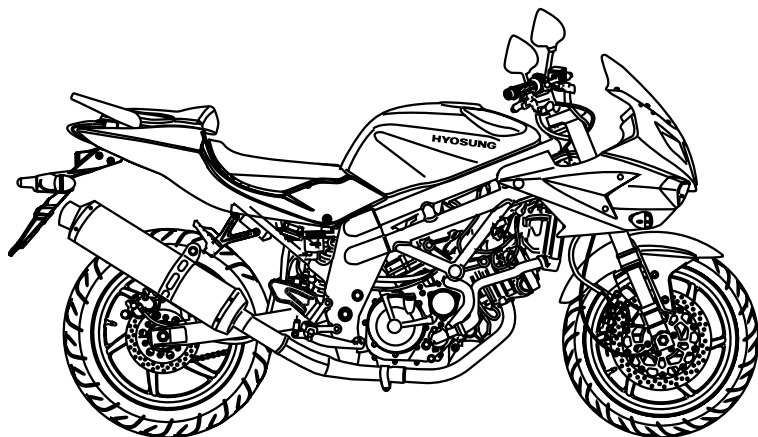
Always start or ride the motorcycle with the correct battery installed and connected.



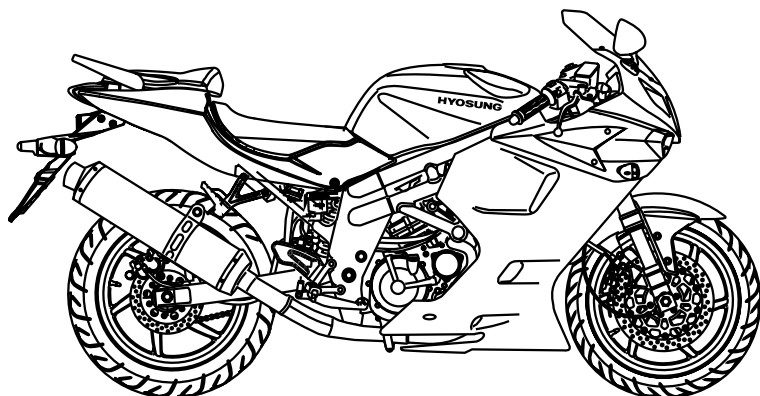
GT650Ei



GT650PEi



GT650SEI



GT650REI

FOREWORD

THANK YOU for choosing a **Hyosung** motorcycle. We at **Hyosung** have designed, tested and produced this motorcycle using the most modern technology available to provide you with much happy, enjoyable, safe riding. Motorcycling is one of the most exhilarating sports and to ensure your riding enjoyment, you should become thoroughly familiar with the information presented in this Owner's Manual before riding the motorcycle.

The proper care and maintenance that your motorcycle requires is outlined in this manual.

By following these instructions explicitly you will ensure a long trouble-free operating life for your motorcycle. Your **Hyosung** dealer has experienced technicians that are trained to provide your machine with the best possible service with the right tools and equipment.

All information, illustrations photographs and specifications contained in this manual are based on the latest product information available at the time of publication. Due to improvements or other changes, there may be some discrepancies between information in this manual and your motorcycle.

Hyosung reserves the right to make changes at any time, without notice and without incurring any obligation to make the same or similar changes to motorcycles previously built or sold.

Please note that this manual applies to all specifications for all respective destinations and explains all equipments. Therefore, your model may have different standard features than shown in this manual.



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IMPORTANT

BREAK-IN INFORMATION FOR YOUR MOTORCYCLE

The first 1,600 km (1,000 miles) are the most important in the life of your motorcycle.

Proper break-in operation during this time will help ensure maximum life and performance from your new motorcycle.

Hyosung parts are manufactured of high quality materials, and manufactured parts are finished to close tolerances. Proper break-in operation allows the machined surfaces to polish each other and mate smoothly.

Motorcycle reliability and performance depend on special care and restraint exercise during the break-in period. It is especially important that you avoid operating the engine in a manner which could expose the engine parts to excessive heat.

Please refer to the BREAK-IN section for specific break-in recommendations.

WARNING / CAUTION / NOTE

Please read this manual and follow its instructions carefully.

To emphasize special information the words 「WARNING」, 「CAUTION」 and 「NOTE」 have special meanings.

Information following these signal words should be carefully reviewed.



WARNING

The personal safety of the rider may be involved. Disregarding this information could result in injury to the rider.



CAUTION

These instructions point out special service procedures or precautions that must be followed to avoid damaging the machine.

NOTE

This provides special information to make maintenance easier or important instructions clearer.



WARNING

Noise Control System (muffler assembly)

TAMPERING WITH NOISE CONTROL SYSTEM PROHIBITED

Owners are warned that the law may prohibit :

- (a) The removal or rendering inoperative by any person other than for the purpose of maintenance, repair or replacement, of any device or element of design incorporated into any new vehicle for the purpose of noise control prior to its any sale or delivery to the ultimate purchaser or while it is in use ; and
- (b) The use of the vehicle after such device or element of design has been removed or rendered inoperative by any person.

MAINTENANCE :

The exhaust system of this motorcycle requires no periodic maintenance.

The engine should be adjusted to the manufacture' s specifications and the spark plug should be kept in good condition. Running the engine with incorrectly operating spark plug or misadjusted fuel injection system may cause permanent damage to the catalyst and to the noise control system.

CONSUMER INFORMATION

SAFE RIDING RECOMMENDATION FOR MOTORCYCLE RIDERS

Motorcycle riding is great fun and an exciting sport. Motorcycle riding also requires he/she to take some extra precautions to ensure the safety of the rider and passenger.

These precautions are :



WARNING

- Before first use of the 「GT650P/S/IREI」, read this owner's manual carefully to become familiar with the motorcycle features, and safety and maintenance requirements. Review all instructions, requirements and warnings. Keep the owner's manual in the owner's manual storage compartment located under the rear seat.
- Before the rider's first use of the 「GT650P/S/IREI」, make sure that he / she is familiar with the location and operation of all controls, and has been instructed in the proper operation of the motorcycle.
- For first use of the 「GT650P/S/IREI」, find a level, open area for the rider to use to become familiar with the operation of controls and the operating and handling characteristics of the motorcycle.



WARNING

- Before each use, perform daily inspections with the rider. Specific items to check are listed in the INSPECTION BEFORE RIDING section on page 64 of this owner's manual.
- Make sure the rider wears a helmet, eye protection, and protective clothing (gloves, leather or heavy cloth pants, long sleeved shirt or jacket, boots).
- Permit use only by two persons. The motorcycle is designed for use only by one rider and one passenger.
- Do not permit anyone to operate the 「GT650P/S/IREI」 under the influence of alcohol or other drugs. It may cause damage to the motorcycle and alter handling characteristics.
- Observe periodic maintenance requirements. Your authorized HYOSUNG dealer is trained and equipped to perform this service.
- Drain gasoline from the fuel tank prior to transporting the 「GT650P/S/IREI」.
- Caution the rider and others near the 「GT650P/S/IREI」 not to get close to or touch any moving parts or any heated areas such as the engine and exhaust system.
- Do not make any modifications to the 「GT650P/S/IREI」. Modifications may make the motorcycle unsafe or illegal in your state.

WARNING

The *GT650/PI/S/REI* are equipped with the side stand ignition interlock system.

If the transmission is in neutral or the side stand up, you can only start the engine by squeezing the clutch lever.

This side stand ignition interlock system prevents the motorcycle from being started with side stand down.

Make sure that the side stand ignition interlock system is working properly before riding.

CAUTION

The head lamp, position lamp, meter lamp, tail lamp and license plate lamp on this motorcycle always comes on when the ignition switch is turned to the "ON" position.

WARNING

- Do not run the engine indoors or where there is little or no ventilation. Exhaust gases contain carbon monoxide, a potentially lethal gas that is colorless and odorless.
- Never leave the motorcycle running while unattended, even for a short time.

WARNING

While operating the *GT650/PI/S/REI*, the rider should keep both feet on the footrests at all times to avoid injuries resulting from accidents. Moving the rider's feet from the footrests reduces the rider's ability to control the motorcycle and could lead to an accident.

WARNING

Keep both hands on the handgrips at all times when riding. Removing your hands from the handgrips reduces your ability to control the motorcycle and could result in an accident.

WARNING

Always open the throttle gradually to prevent front wheel lifting. Failure to observe this precaution may result in loss of control and an accident.

CAUTION

WHEN STORING FOR LONG PERIOD :


1. Fully fill the fuel tank with fuel.
2. Remove the battery from the motorcycle.

CAUTION

- The trunk could be heated. Don't keep anything that doesn't endure heat.
- Don't keep the fragile.
- Check if it is locked.
- The unlocking of rear seat could cause serious accident.
- Don't allow water to get inside the trunk or it could damage.
- Don't keep the valuables in the trunk when leaving unattended.
- Loading limit of trunk : 2 kg (4.41 lbs)



WARNING

Do not turn the ignition switch to its “OFF” or “LOCK” position or the engine stop switch to its “” position while riding the motorcycle.

⦿ RIDING APPAREL



WARNING

Loose clothing can be uncomfortable and unsafe when riding a motorcycle. Use good quality motorcycle riding apparel when riding your motorcycle.

⦿ WEAR A HELMET



WARNING

Motorcycle safety equipment starts with a quality safety helmet. One of the most serious injuries that can happen is a head injury. ALWAYS wear a properly approved helmet. You should also wear a suitable eye protection.

⦿ INSPECTION BEFORE RIDING



WARNING

Review thoroughly the instructions in the “INSPECTION BEFORE RIDING” section of this manual. Do not forget to perform an entire safety inspection to ensure the safety of the rider and its passenger.

⦿ FAMILIARIZE YOURSELF WITH THE MOTORCYCLE



WARNING

Your riding skill and mechanical knowledge from the foundation for safe riding practices.

We suggest that you practice riding your motorcycle in a non-traffic situation until you are thoroughly familiar with your machine and its controls.

Remember practice makes perfect.

⦿ BE EXTRA SAFETY CONSCIOUS ON BAD WEATHER DAYS



WARNING

Riding on bad weather days, especially wet ones, requires extra caution.

Braking distances double on a rainy day. Stay off of the painted surface marks, manhole covers and greasy appearing areas as they can be especially slippery.

Use extreme caution at railway crossings and on metal gratings and bridges. Whenever you have a doubt about road condition, slow down!

⦿ KNOW YOUR LIMITS



WARNING

Ride within the boundaries of your own skill at all times. Knowing these limits and staying within them will help you to avoid accidents.

ACCESSORY INSTALLATION AND PRECAUTION SAFETY TIPS

There are a great variety of accessories available to **Hyosung** owners. **Hyosung** can not have direct control over the quality or suitability of accessories you may wish to purchase except genuine parts.

The addition of unsuitable accessories can lead to unsafe operating conditions. It is not possible for **Hyosung** to test each accessory on the market or combinations of all the available accessories, however, your dealer can assist you in selecting quality accessories and installing them correctly.

Use extreme caution when selecting and installing the accessories for your **Hyosung**. We have developed some general guidelines which will aid you when deciding whether, and how to equip your motorcycle.



WARNING

Improper accessories or modifications can make your motorcycle unsafe and can lead to an accident.

Never modify the motorcycle with improper or poorly installed accessories. Follow all instructions in this owner's manual regarding accessories and modifications. Use genuine Hyosung accessories or equivalent designed and tested for your motorcycle. Consult your Hyosung dealer if you have any questions.

1. In case that additional weight or aerodynamic affecting accessories are installed, they should be mounted as low as possible, as close to the motorcycle and as near the center of gravity as is feasible. The mounting brackets and other attachment hardware should be carefully checked to ensure that it provides for a rigid, nonmovable mount. Weak mounts can allow the shifting of the weight and create a dangerous, unstable condition.
2. Inspect for proper ground clearance and bank angle. An improperly mounted load could critically reduce these two safety factors. Also determine that the "load" does not interfere with the operation of the suspension, steering or other control operations.
3. Accessories fitted to the handlebars or the front fork area can create serious stability problems. This extra weight will cause the motorcycle to be less responsive to your steering control. The weight may also cause oscillations in the front end and lead to instability problems. Accessories added to the machine should be as light as possible and kept to a minimum.
4. The motorcycle may be affected by a lifting condition or by an instability in cross winds or when being passed or passing large vehicles. Improperly mounted or poorly designed accessories can result in an unsafe riding condition, therefore caution should be used when selecting and installing all accessories.

5. Certain accessories displace the rider from his or her normal riding position. This limits the freedom of movement of the rider and may limit his or her control ability.
6. Additional electrical accessories may damage the existing electrical system. Severe overloads may damage the wiring harness or create a dangerous situation due to the loss of electrical power during the operation of the motorcycle.

When carrying a load on the motorcycle, mount it as low as possible and as close as possible to the machine. An improperly mounted load can create a high center of gravity which is very dangerous and makes the motorcycle difficult to handle. The size of the "load" can also affect the aerodynamics and handling of the motorcycle.

Balance the load between the left and right side of the motorcycle and fasten it securely.

MODIFICATION

Modification of the motorcycle, or removal of original equipment may render the vehicle unsafe or illegal.

Obey all applicable equipment regulations in your area.

TABLE OF CONTENTS

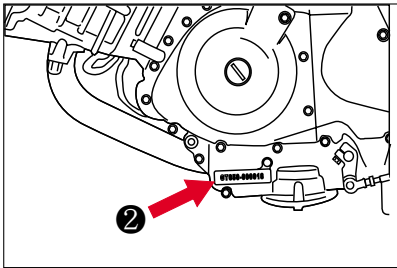
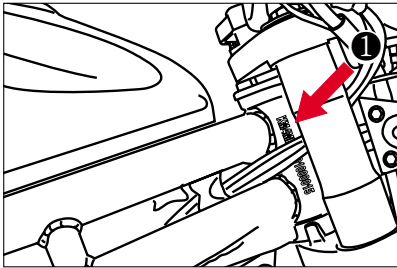
1. SERIAL NUMBER LOCATION	16
2. FUEL, ENGINE OIL AND ENGINE COOLANT RECOMMENDATION . . .	17
FUEL	
ENGINE OIL	
ENGINE COOLANT SOLUTION	
3-1. NAMES OF EACH PARTS [<i>GT650E1</i>]	20
3-2. NAMES OF EACH PARTS [<i>GT650PE1</i>]	23
3-3. NAMES OF EACH PARTS [<i>GT650SE1</i>]	26
3-4. NAMES OF EACH PARTS [<i>GT650RE1</i>]	29
4. CONTROLS	32
IGNITION SWITCH	
IGNITION KEY	
INSTRUMENT PANEL	
LEFT HANDLE SWITCHES	
RIGHT HANDLE SWITCHES	
FRONT BRAKE LEVER ADJUSTMENT	
REAR BRAKE PEDAL	
GEARSHIFT LEVER	
FOOTRESTS	
SIDE STAND	
SEAT LOCK	
TRUNK	
REAR SHOCK ABSORBER	
FRONT FORK	
5. SUPPLY OF GASOLINE, ENGINE OIL AND ENGINE COOLANT . . .	50
GASOLINE	
ENGINE OIL	
ENGINE COOLANT	
6. RIDING TIPS	58
STARTING THE ENGINE	
STARTING OFF	
USING THE TRANSMISSION	
RIDING ON HILLS	
STOPPING AND PARKING	
7. BREAK-IN	62

8. INSPECTION BEFORE RIDING	64
9. PERIODIC MAINTENANCE	68
10. INSPECTION AND MAINTENANCE	70
TOOL	
ENGINE OIL	
FUEL HOSE	
GASOLINE	
ENGINE COOLANT	
RADIATOR	
RADIATOR HOSE	
RUBBER CAP OF CABLES	
EXHAUST PIPE AND MUFFLER	
FRONT AND REAR SUSPENSIONS	
REAR-VIEW MIRROR	
REFLECTOR	
BATTERY	
AIR CLEANER	
SPARK PLUG	
IDLING ADJUSTMENT	
THROTTLE CABLE PLAY ADJUSTMENT	
CLUTCH CABLE ADJUSTMENT	
DRIVE CHAIN	
BRAKES	
TIRE	
BULBS	
11. TROUBLESHOOTING	94
12. TRANSPORT	96
13. CLEANING PROCEDURE	97
14. STORAGE PROCEDURE	98
15. LABEL	100
16. SPECIFICATIONS	104

SERIAL NUMBER LOCATION

The frame and/or engine serial numbers are used to register the motorcycle. They are also to assist your dealer in terms of ordering parts or referring to special service information.

The frame number is also known as the VIN or Vehicle Identification Number.



The frame number ① is stamped on the right side of the steering head tube.

The engine serial number ② is stamped on the left downside of the crankcase assembly.

Please write down the numbers in the box provided below for your future reference.

Frame number :

Engine number :

FUEL, ENGINE OIL AND ENGINE COOLANT RECOMMENDATION

FUEL

Use unleaded gasoline with an octane rating of 91 or higher.

Unleaded gasoline can extend spark plug life and exhaust components life.



CAUTION

Spilling gasoline can damage the painted surfaces.

Be careful not to spill any fuel when filling the fuel tank.

Wipe spilled gasoline up immediately.



WARNING

- When refueling, always shut the engine off and turn the ignition key to the "OFF" position. Never refuel near the flames, sparks and heat sources.
- Do not overfill the fuel tank. Do not fill gasoline above the fuel tank entrance lower end.

ENGINE OIL

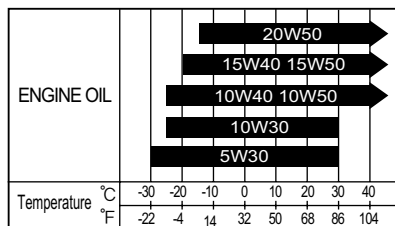
Oil quality is a major contributor to your engine's performance and life.

Always select good quality engine oil.

ENGINE OIL SPECIFICATION

Classification system	Grade	Remarks
API	Over SL	
SAE	10W/40	

※ If a SAE 10W/40 motor oil is not available, select alternative according to the following chart.



Use the chart to select a viscosity rating based on temperature range in your area.

NOTE

In very cold weather [below -15°C (5°F)], use SAE 5W/30 for good starting and smooth operation.

Using a premium quality four stroke motor oil will increase the service life of your motorcycle.



WARNING

- Don't mix the unrecommended oil. It could damage the engine.
- When refilling the oil, don't allow the dust to get inside.
- Wipe the spilled oil up immediately.

ENGINE COOLANT SOLUTION

Use an engine coolant that is compatible with aluminum radiator, mixed with distilled water only at a 50 : 50 mixture ratio for engine coolant solution.

An engine coolant mixture other than 50 : 50 can affect cooling efficiency or rust inhibiting performance.



WARNING

Engine coolant is harmful or fatal if swallowed or inhaled.

Do not drink anti-freeze or coolant solution. If swallowed, do induce vomiting. Immediately contact a poison control center or a physician. Avoid inhaling mist or hot vapors ; if inhaled, remove to fresh air. If coolant gets in eyes, flush eyes with water and seek medical attention. Wash thoroughly after handling. Solution can be poisonous to animals.

Keep out of the reach of children and animals.



CAUTION

Spilled engine coolant can damage painted surfaces.

Do not spill any fluid when filling the radiator. Wipe spilled engine coolant up immediately.

Ⓢ WATER FOR MIXING

Use distilled water only.

Water other than distilled water can corrode and clog the aluminum radiator.

⊙ ENGINE COOLANT

The engine coolant performs as rust inhibitor and water pump lubricant as well as anti-freeze.

Therefore the engine coolant should be used at all times even though the atmospheric temperature in your area does not go down to freezing point.

Required amount of water / coolant

Solution capacity (total)	1.6 ℓ
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50%	Water	0.8 ℓ
	Engine coolant	0.8 ℓ

N O T E

This 50% mixture will protect the cooling system from freezing at temperatures above -31°C .

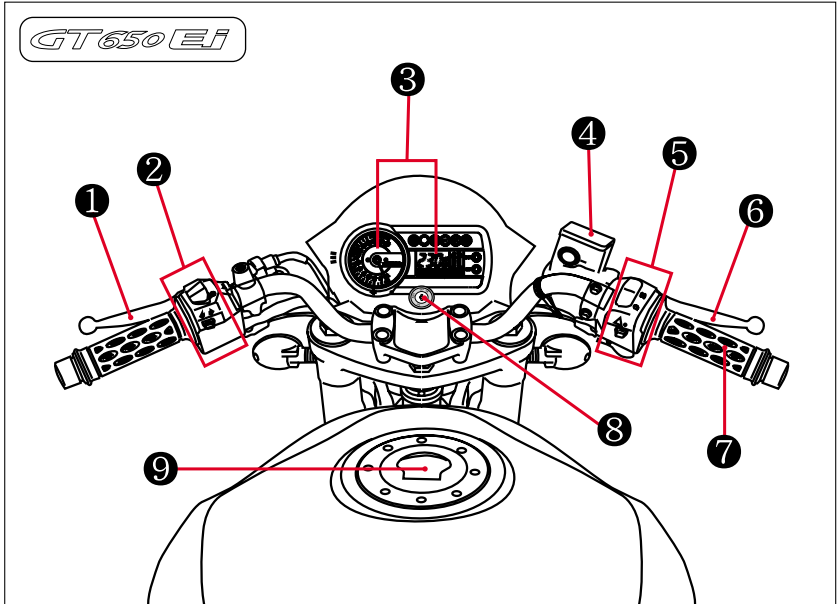
If the motorcycle is to be exposed to temperature below -31°C , this mixing ratio should be increased up to 55% (-40°C) or 60% (-55°C).

The mixing ratio should not exceed 60%.

⊙ COOLANT RESERVOIR TANK

☞ Refer to 55 page.

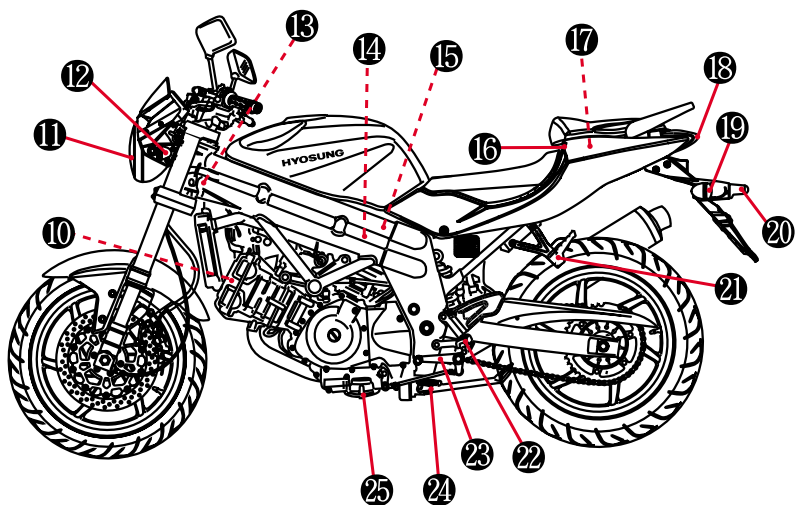
NAMES OF EACH PARTS [*GT650EI*]



- ① Clutch lever
- ② Left handle switches
- ③ Instrument panel
- ④ Front brake fluid reservoir
- ⑤ Right handle switches

- ⑥ Front brake lever
- ⑦ Throttle grip
- ⑧ Ignition switch
- ⑨ Fuel tank cap

GT 650 EJ



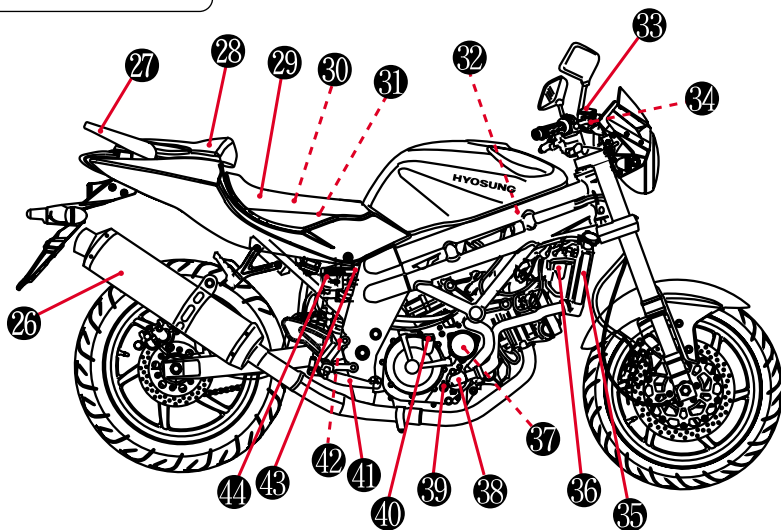
- ⑩ Spark plug (Front)
- ⑪ Head lamp & Position lamp
- ⑫ Front turn signal lamp
- ⑬ Ignition coil (Front)
- ⑭ Ignition coil (Rear)
- ⑮ Spark plug (Rear)
- ⑯ Rear seat lock
- ⑰ Fuses

- ⑱ Brake / Tail lamp
- ⑲ Rear turn signal lamp
- ⑳ License plate lamp
- ㉑ Passenger footrests
- ㉒ Footrests
- ㉓ Gearshift lever
- ㉔ Side stand
- ㉕ Engine oil drain plug

NOTE

“-----” : means the invisible parts.

GT650EJ

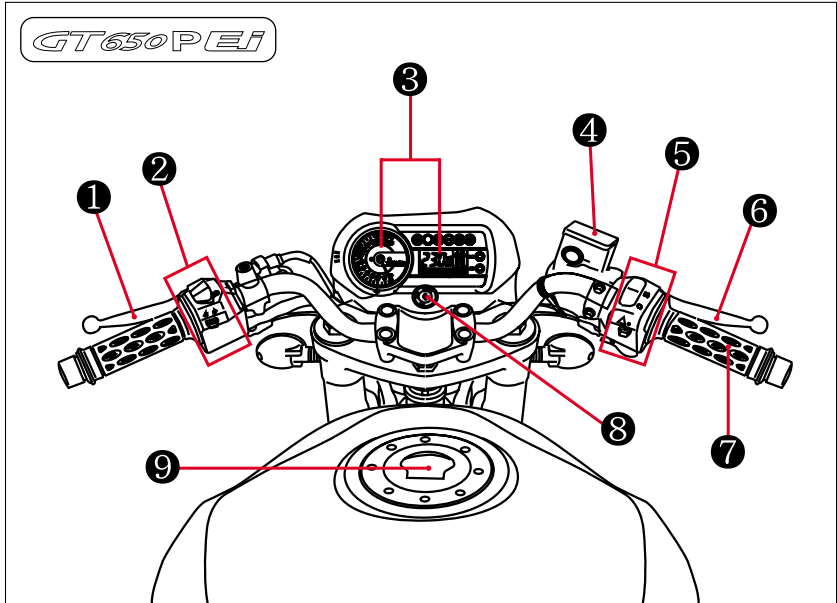


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|--------------------------------|-------------------------------|
| ②⑥ Muffler | ③⑤ Cooling fan and motor |
| ②⑦ Rear carrier | ③⑦ Engine oil filter |
| ②⑧ Rear seat & Trunk & Tools | ③⑧ Water pump |
| ②⑨ Front seat | ③⑨ Engine oil level lens |
| ③⑩ ECU (Engine Control Unit) | ④⑩ Engine oil filler plug |
| ③⑪ Battery | ④① Rear brake pedal |
| ③⑫ Air cleaner | ④② Rear brake lamp switch |
| ③⑬ Front brake fluid reservoir | ④③ Coolant reserve tank |
| ③⑭ Front brake lamp switch | ④④ Rear brake fluid reservoir |
| ③⑮ Radiator | |

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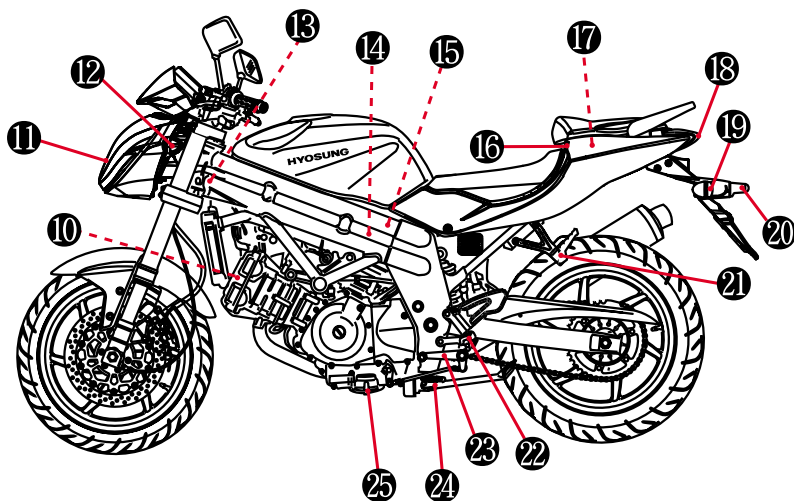
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- ② Left handle switches
- ③ Instrument panel
- ④ Front brake fluid reservoir
- ⑤ Right handle switches

- ⑥ Front brake lever
- ⑦ Throttle grip
- ⑧ Ignition switch
- ⑨ Fuel tank cap

GT650PEI



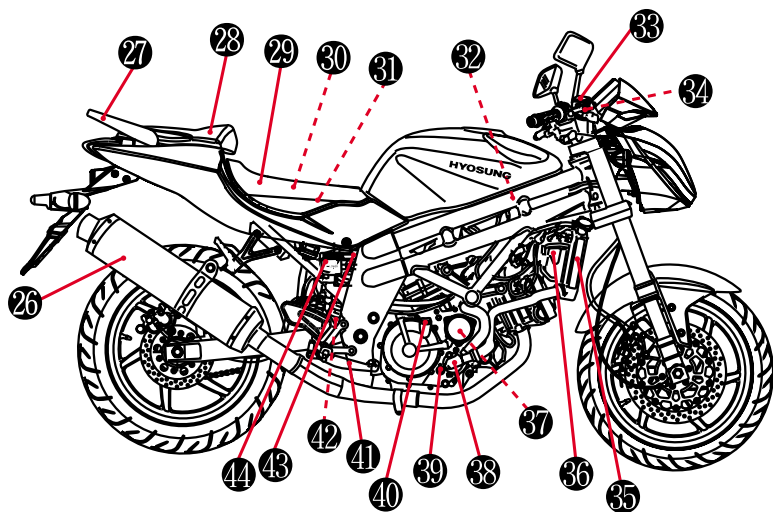
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- ⑯ Rear seat lock
- ⑰ Fuses

- ⑱ Brake / Tail lamp
- ⑲ Rear turn signal lamp
- ⑳ License plate lamp
- ㉑ Passenger footrests
- ㉒ Footrests
- ㉓ Gearshift lever
- ㉔ Side stand
- ㉕ Engine oil drain plug

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GT650PEI

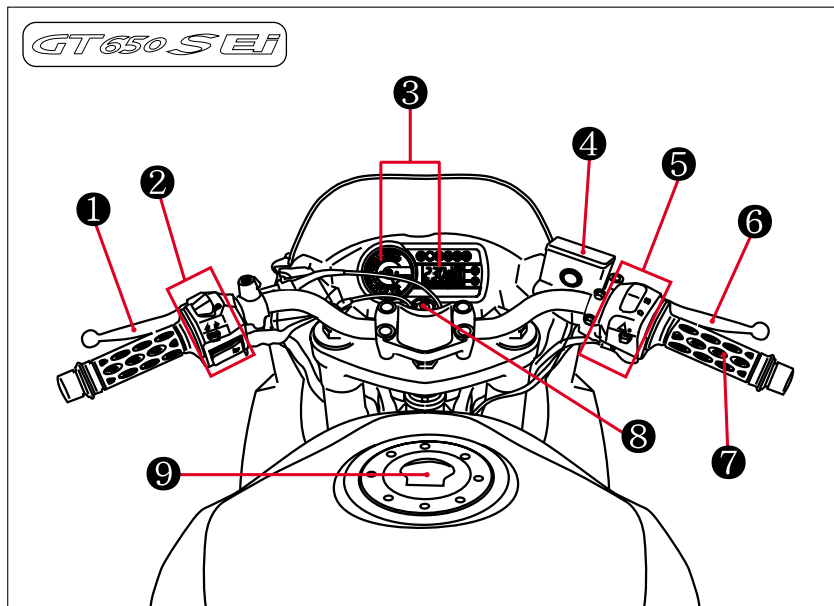


- | | |
|--------------------------------|-------------------------------|
| 26 Muffler | 36 Cooling fan and motor |
| 27 Rear carrier | 37 Engine oil filter |
| 28 Rear seat & Trunk & Tools | 38 Water pump |
| 29 Front seat | 39 Engine oil level lens |
| 30 ECU (Engine Control Unit) | 40 Engine oil filler plug |
| 41 Battery | 41 Rear brake pedal |
| 32 Air cleaner | 42 Rear brake lamp switch |
| 33 Front brake fluid reservoir | 43 Coolant reserve tank |
| 34 Front brake lamp switch | 44 Rear brake fluid reservoir |
| 35 Radiator | |

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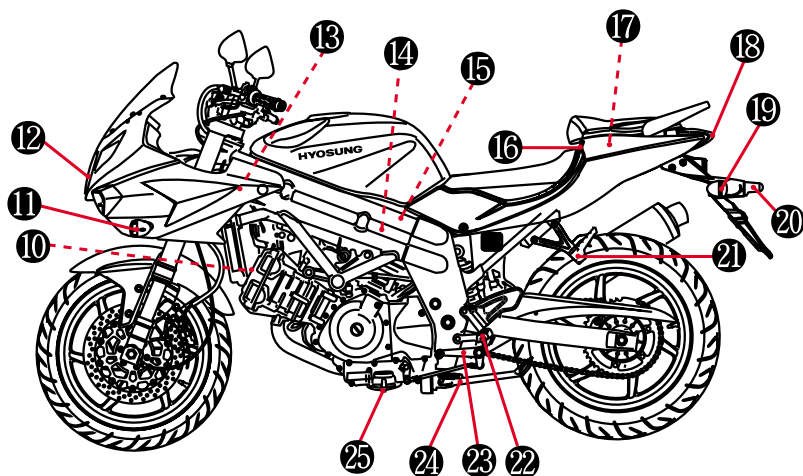
NAMES OF EACH PARTS [*GT650SEI*]



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- ② Left handle switches
- ③ Instrument panel
- ④ Front brake fluid reservoir
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- ⑥ Front brake lever
- ⑦ Throttle grip
- ⑧ Ignition switch
- ⑨ Fuel tank cap

GT650SEI



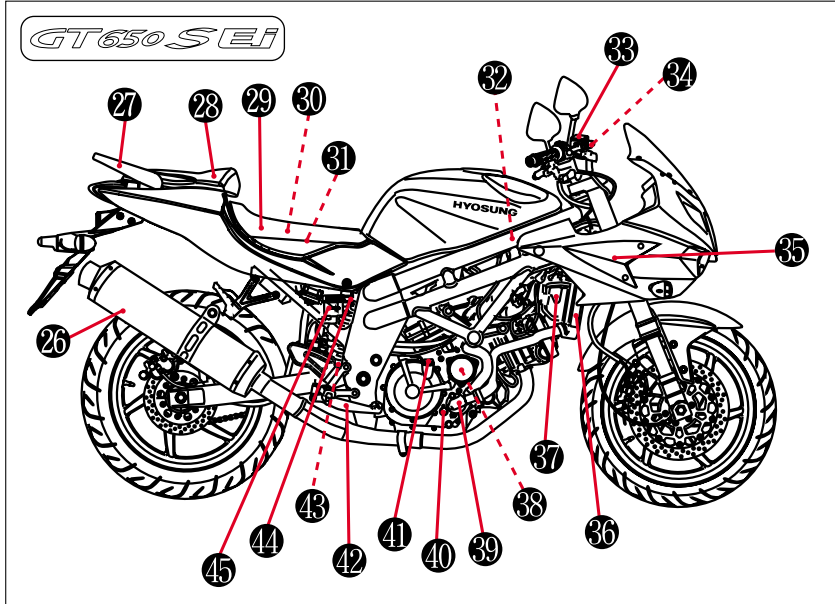
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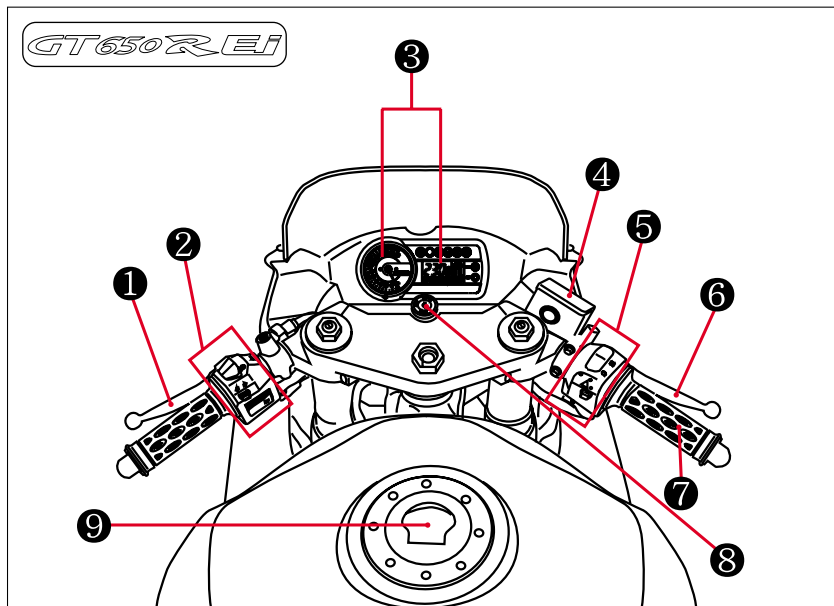


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| ③⑬ Front brake fluid reservoir | ④③ Rear brake lamp switch |
| ③⑭ Front brake lamp switch | ④④ Coolant reserve tank |
| ③⑮ Side cowling inner | ④⑤ Rear brake fluid reservoir |

N O T E

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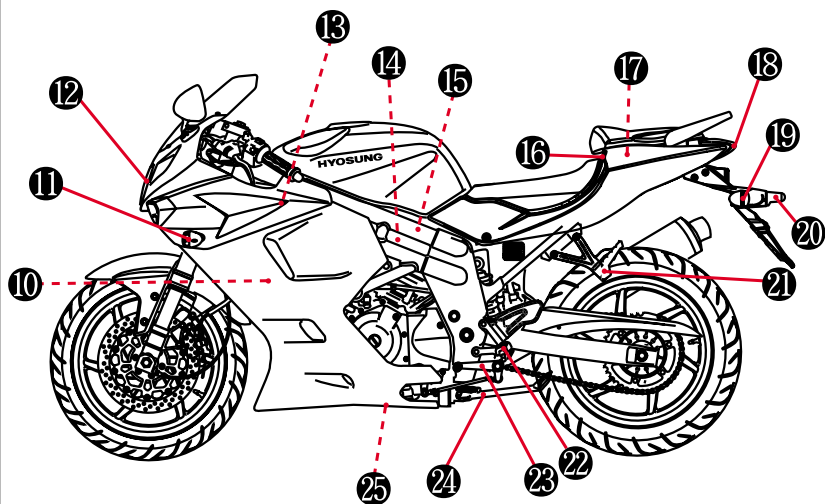
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- ⑨ Fuel tank cap

GT650REI



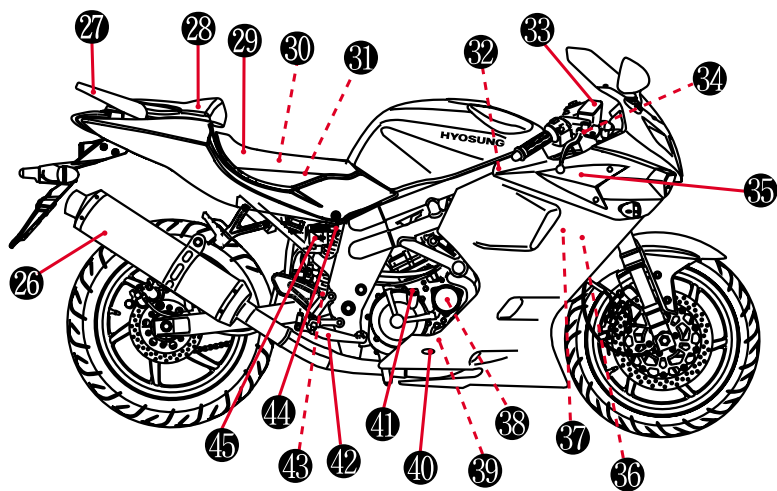
- ⑩ Spark plug (Front)
- ⑪ Front turn signal lamp
- ⑫ Head lamp & Position lamp
- ⑬ Ignition coil (Front)
- ⑭ Ignition coil (Rear)
- ⑮ Spark plug (Rear)
- ⑯ Rear seat lock
- ⑰ Fuses

- ⑱ Brake / Tail lamp
- ⑲ Rear turn signal lamp
- ⑳ License plate lamp
- ㉑ Passenger footrests
- ㉒ Footrests
- ㉓ Gearshift lever
- ㉔ Side stand
- ㉕ Engine oil drain plug

NOTE

“-----” : means the invisible parts.

GT650REI



- ②⑥ Muffler
- ②⑦ Rear carrier
- ②⑧ Rear seat & Trunk & Tools
- ②⑨ Front seat
- ③⑩ ECU (Engine Control Unit)
- ③⑪ Battery
- ③⑫ Air cleaner
- ③⑬ Front brake fluid reservoir
- ③⑭ Front brake lamp switch
- ③⑮ Side cowling inner

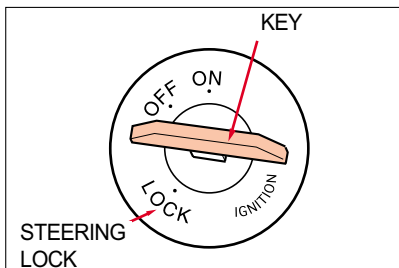
- ③⑯ Radiator
- ③⑰ Cooling fan and motor
- ③⑱ Engine oil filter
- ③⑲ Water pump
- ④⑰ Engine oil level lens
- ④⑱ Engine oil filler plug
- ④⑲ Rear brake pedal
- ④⑳ Rear brake lamp switch
- ④㉑ Coolant reserve tank
- ④㉒ Rear brake fluid reservoir

NOTE

“-----” : means the invisible parts.

CONTROLS

IGNITION SWITCH



The ignition switch has three positions :

⊙ “ON” POSITION

The ignition circuit is completed and the engine can now be started.

The key cannot be removed from the ignition switch in this position.

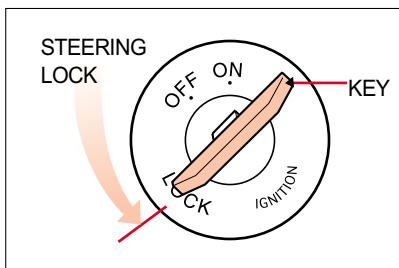
⊙ “OFF” POSITION

All electrical circuits are cut off.

The engine will not start.

The key can be removed.

⊙ “LOCK” POSITION



To lock the steering :

- Turn the handlebars all the way to the left.
- Turn the ignition key to the “OFF” position.
- Push down the ignition key from the “OFF” position, come up again and turn it to the “LOCK” position.
- Remove the ignition key.

WARNING

Turning the ignition switch to the “OFF” or “LOCK” position while the motorcycle is moving can be hazardous. Moving the motorcycle while the steering is locked can be hazardous. You could lose your balance and fall, or you could drop the motorcycle.

Stop the motorcycle and place it on the side stand if equipped before locking the steering. Never attempt to move the motorcycle when the steering is locked.

N O T E

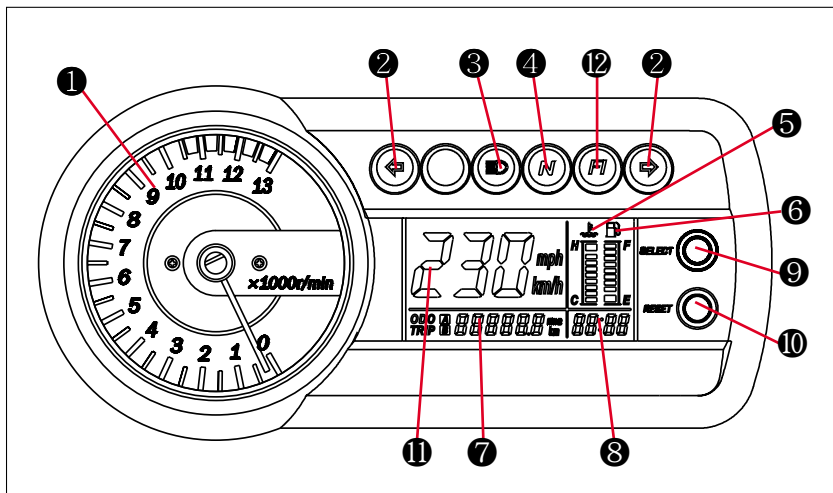
Start the engine after turning the key to the “ON” position, or the battery will lose power due to consumption by the lamp.

IGNITION KEY

This motorcycle come equipped with two ignition keys.

Keep the spare key in a safe place.

INSTRUMENT PANEL



WARNING

Operating the display while riding can be hazardous. Removing a hand from the handlebars can reduce your ability to control the motorcycle.

Always keep both hands on the handlebars while riding.



CAUTION

When the ignition switch is turned to the "ON" position, the meter lamp and display of speedometer will come on.



CAUTION

To adjust the brightness of speedometer display, push the switch ⑤ (in the normal mode) for 0.6 ~ 1 seconds while you want to change.

[Brightness of speedometer display]



① TACHOMETER

The tachometer indicates the engine speed in revolutions per minutes (rpm).



CAUTION

Revvng the engine into the red zone of the tachometer can cause severe engine damage. Never allow the engine to rev into the red zone of the tachometer in any gear.

② TURN SIGNAL INDICATOR LAMP

When the turn signals are being operated either to the right or to the left, the green indicator will flash at the same time.

③ HIGH BEAM INDICATOR LAMP

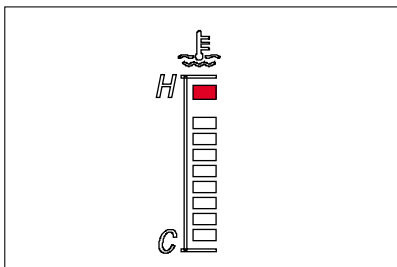
The blue high beam indicator lamp will come on when the head lamp high beam is turned on.

④ NEUTRAL INDICATOR LAMP

The green neutral indicator lamp will come on when the transmission is in neutral.

The lamp will go out when you shift into any gear other than neutral.

⑤ COOLANT TEMPERATURE METER



The *GT650(P/S/REI)*'s speedometer is LCD (Liquid Crystal Display) type, it indicates the coolant temperature.

The coolant temperature meter displays all 9 segments when the coolant temperature is hot.

[The "H"(Hot) mark indicates the coolant temperature is hot.]

When the coolant temperature is higher than 125°C (257°F), the red lamp of "H"(Hot) mark comes on.

The "C"(Cool) mark indicates the coolant temperature is cool.



CAUTION

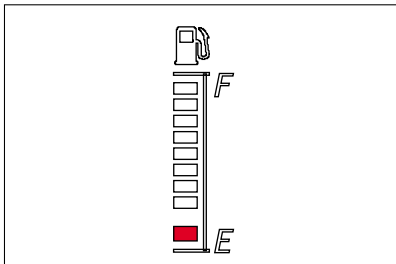
Running the engine with high engine coolant temperature can cause serious engine damage.

If the engine coolant temperature meter comes on the red lamp of "H" mark, stop the engine to let it cool.

NOTE

- *High engine speed, low vehicle speeds, or heavy load can increase engine coolant temperature. Decrease engine speed, reduce load and select an appropriate transmission gear to lower the temperature.*
- *Debris or mud in front of the engine or packed between the radiator fins can reduce cooling ability. Remove any debris or mud preventing air flow to the engine.*

⑥ FUEL METER



The 『GT650PISTREI』's speedometer is LCD (Liquid Crystal Display) type, it indicates the remaining fuel amount in the fuel tank.

The fuel meter displays all 9 segments when the fuel tank is full.

[The "F"(Full) mark indicates the fuel tank is full.]

The "E"(Empty) mark indicates the fuel tank is empty or nearly so.

When the remaining fuel is approximately 3.4 ℓ, the red lamp of "E"(Empty) mark comes on only.

Fill the fuel tank before the red lamp of "E"(Empty) mark came on only.

The fuel tank capacity is 17.0 ℓ.



CAUTION

When the red lamp of "E" mark comes on only, you should add fuel to the fuel tank at the first opportunity to avoid running out of fuel.



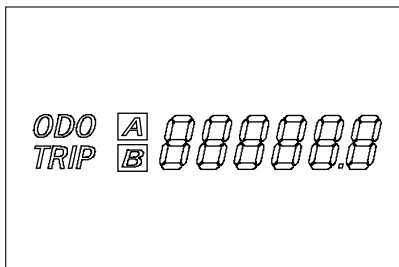
CAUTION

For checking the fuel meter, hold the motorcycle vertically and the ignition switch "ON".

⑦ ODOMETER / TRIP METER

The display in it has three functions, odometer and two trip meters.

The display changes odometer or trip meter, as indicated before turning the ignition switch off.

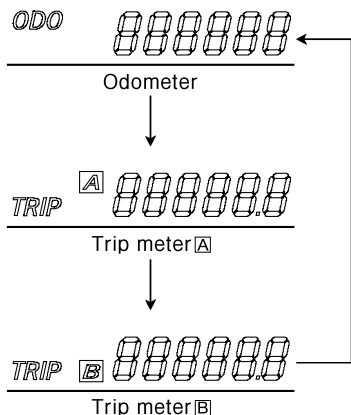


The odometer registers the total distance that the motorcycle has been ridden.

The two trip meters are resettable odometer.

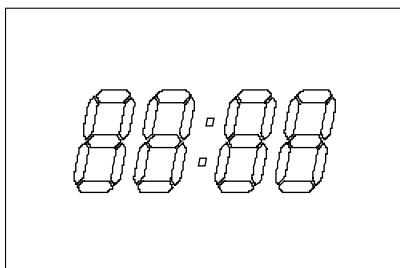
They can register two kinds of distance at the same time. For instance, trip meter **A** can register the trip distance and trip meter **B** can register the distance between fuel stops.

To change the display, push the switch ⑩ (in the normal mode) for 0.6 ~ 1 seconds while the display indicates the odometer, trip meter **A** or trip meter **B** you want to change.



To reset the trip meter to zero, push the switch ⑩ (in the normal mode) for 2 seconds while the display indicates trip meter **A** or **B** you want to reset.

⑧ CLOCK



The clock indicates 12-hour mode.

Follow the procedure below to adjust the clock.

1. Push the switch ⑨ (in the normal mode) for 2 seconds until the hour and minutes display blink.
It is the clock reset mode.
2. Adjust the hour display by pushing the switch ⑩ (in the clock reset mode) for 0.6 ~ 1 seconds.
3. Adjust the minutes display by pushing the switch ⑨ (in the clock reset mode) for 0.6 ~ 1 seconds.
4. Push the switch ⑨ (in the clock reset mode) for 2 seconds to resume in the normal mode.

⑨ SELECT SWITCH

Use this switch to adjust the following :

● In the normal mode

Push it for	Adjustment
0.6 ~ 1 seconds	To adjust the brightness of speedometer display (100% → 75% → 50% → 25% → 100%)
2 seconds	Normal mode → Clock reset mode

● In the clock reset mode

Push it for	Adjustment
0.6 ~ 1 seconds	Increase the minutes of clock
2 seconds	Clock reset mode → Normal mode

CLOCK ADJUSTMENT

Mode	Switch	Push it for	Adjustment
Normal	Select(⑨)	2 seconds	Normal mode → Clock reset mode
Clock reset mode	Reset(⑩)	0.6 ~ 1 seconds	Increase the hour of clock
	Select(⑨)	0.6 ~ 1 seconds	Increase the minutes of clock
	Select(⑨)	2 seconds	Clock reset mode → Normal mode

⑩ RESET SWITCH

Use this switch to adjust the following :

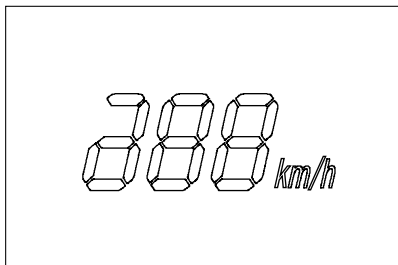
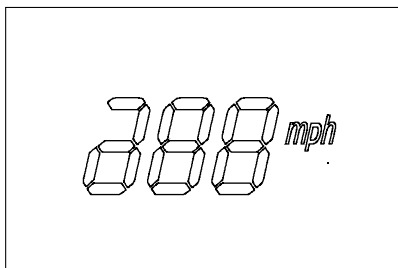
● In the normal mode

Push it for	Adjustment
0.6 ~ 1 seconds	Odometer → Trip meter [A] → Trip meter [B] → Odometer
2 seconds	Reset the trip meter to zero, while the display indicates trip meter [A] or [B]

● In the clock reset mode

Push it for	Adjustment
0.6 ~ 1 seconds	Increase the hour of clock

⑪ SPEEDOMETER



The speedometer indicates the road speed in kilometers or miles per hour.

To change the speedometer display :

1. Turn the ignition switch to the "ON" position.
2. Pushing the switch ⑩ (in the normal mode), turn the ignition switch to the "OFF" position and turn to the "ON" position again.
3. Push the switch ⑩ (in the normal mode) for 5 seconds continually until the speedometer display change.



WARNING

Obey the speed limit and traffic regulation at all times.

⑫ “FI” (Fuel Injection) CHECK LAMP

If the electric fuel injection system fails, the “FI” check lamp ⑫ comes on and the LCD (Liquid Crystal Display) display panel ⑪ indicates “FI” letters in following two modes ;

- A** . The LCD display panel ⑪ indicates “FI” letters and speedometer alternately, and the “FI” check lamp ⑫ comes on and remains lit.
- B** . The LCD display panel ⑪ indicates “FI” letters continuously and the “FI” check lamp ⑫ comes on and blinks.

The engine may continue to run in mode **A**, but the engine may not run in mode **B**.



CAUTION

Riding the motorcycle with the LCD display panel indicating a problem with the electric fuel injection system and with “FI” check lamp lit can damage the engine and transmission.

Whenever the “FI” check lamp is lit and the display panel indicates “FI”, have your authorized Hyosung dealer or a qualified mechanic inspect the electric fuel injection system as soon as possible.

N O T E

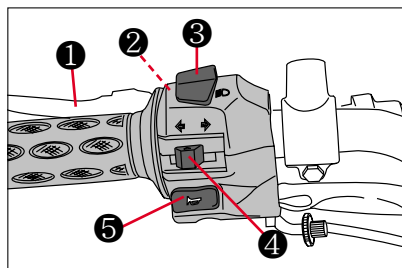
If the LCD display panel indicates “FI” letters and speedometer alternately, and the “FI” check lamp comes on and remains lit, keep the engine running and bring your motorcycle to an authorized Hyosung dealer.

If the engine stalls, try restarting the engine after turning the ignition switch off and on.

When the LCD display panel ⑪ indicates “cHE”, make sure that the engine stop switch is in the “○” position.

If the LCD display panel still indicates “cHE” after above procedure, inspect the ignition fuse and connection of lead wire couplers.

LEFT HANDLE SWITCHES



① CLUTCH LEVER

The clutch lever is used for disengaging the drive to the rear wheel when starting the engine or shifting the transmission gear.

Squeezing the lever disengages the clutch.



CAUTION

Use the clutch correctly.
Otherwise, the clutch may be worn quickly.


② “PASS” SWITCH

Press the “PASS” switch to operate the head lamp high beam for using when pass.

With the ignition switch in the “ON” position, push the “PASS” switch to operate the head lamp high beam.





CAUTION

Do not operate when the dimmer switch
“” position.


③ DIMMER SWITCH

Change the direction of the head lamp light.

- “” : The head lamp high beam comes on.
The high beam indicator lamp also comes on.
- “” : The head lamp low beam comes on.







WARNING

Set the dimmer switch “” when other vehicle is running in front or against.

④ TURN SIGNAL SWITCH

Using when left, right turn or change direction.

- “” Position : Flash the left turn signal lamp.
- “” Position : Flash the right turn signal lamp.
- “” (OFF) : Pushing the “” position will stop the turn signal lamp to operate.



CAUTION

Always use the turn signals when you intend to change lanes or make a turn.
Always be sure to turn the turn signal switch to the “OFF” position after completing the turn or lane change.



⑤ HORN SWITCH

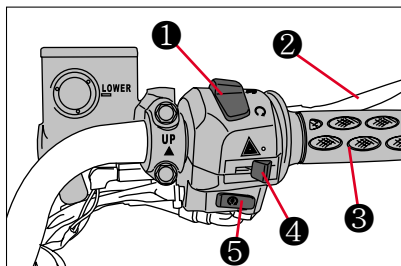
Press the switch to operate the horn.





CAUTION

Use the horn switch only in case of needing.


RIGHT HANDLE SWITCHES



① ENGINE STOP SWITCH

- “” Position : Use in emergency or when motorcycle has fallen over to stop engine quickly. The ignition circuit is off. The engine cannot start or run.
- “” Position : The ignition circuit is on and the engine can start and run. Keep in this position for normal engine operation.

WARNING

Do not operate the engine stop switch into the “” position while driving at one’s pleasure.

② FRONT BRAKE LEVER

The front brake is applied by squeezing the brake lever gently toward the throttle grip.

The front brake is a powerful disk brake system. Do not brake excessively so as to cause the front wheel to lock up or skid. The brake lamp will come on when the lever is squeezed.

WARNING

Apply the brake lightly and with great care on slippery surfaces to avoid skidding.



③ THROTTLE GRIP

Engine speed is controlled by position of the throttle grip. Turn it toward you to increase engine speed. Turn it away from you to decrease the engine speed.

WARNING

Avoid turning the throttle grip during braking.

④ HAZARD WARNING SWITCH

- “” : All four turn signal lamps and indicator lamp will flash simultaneously when the switch is turned on with the ignition switch in “ON” position.
- “” : The turn signal lamps and indicator lamp go off.

Use the hazard warning switch to warn other traffic during emergency parking or when your vehicle could otherwise become a traffic hazard.

CAUTION

Turn off the hazard warning switch promptly after use.

If the motorcycle is ridden with the hazard warning switch turned on, it may confuse other drivers.

The battery will eventually become depleted if the hazards warning remains on for a period of time without the engine running.

⑤ (🔌) STARTER SWITCH

Use this switch to operate the starting motor.

With the ignition switch in the "ON" position, the engine stop switch in the "○" position, and the transmission is in neutral, squeeze the clutch lever and the side stand up and push the starter switch to start the engine.

NOTE

Push the starter switch after about three seconds whenever the ignition switch is set to "ON" position with engine stopped as a test of the electric injection system operation.

If push the starter switch before about three seconds, the engine will be started badly and the spark plugs get wetted.



CAUTION

- Release the starter switch immediately after the motorcycle has started.
- Do not engage the starting motor for more than five seconds at a time as it may overheat the wiring harness and starting motor.

If the engine does not start after several attempts, check the fuel supply and ignition system.

(Refer to Page 94)



WARNING

The 「 *GT650/P/S/R/EI* 」 are equipped with the side stand ignition interlock system.

If the transmission is in neutral or the side stand up, you can only start the engine by squeezing in the clutch lever.

This side stand ignition interlock system prevents the motorcycle from being started with side stand down.

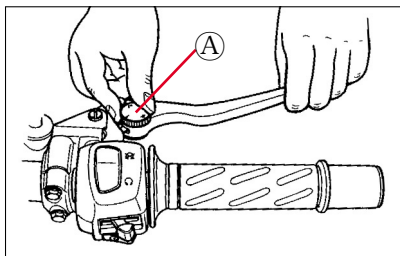
Make sure that the side stand ignition interlock system is working properly before riding.



CAUTION

The head lamp, position lamp, meter lamp, tail lamp and license plate lamp on this motorcycle always comes on when the ignition switch is turned to the "ON" position.

FRONT BRAKE LEVER ADJUSTMENT



The distance between the throttle grip and the front brake lever is adjustable among six positions.

To change the position, push the brake lever forward and turn the adjuster (A) to the desired position ("□" mark of the front brake lever holder).

When changing the brake lever position, always be sure the adjuster stops in the proper position ; a projection of the brake lever holder should fit into the depression of the adjuster (A).

These motorcycles are delivered from the factory with its adjuster set on position 6.

Position 1 provides the widest distance and position 6 provides narrowest distance.

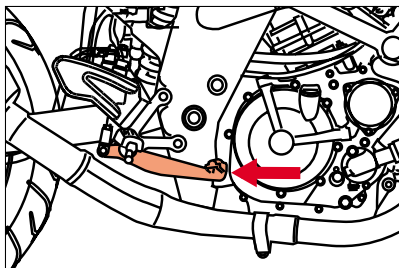
WARNING

Never attempt to change the front brake lever position while riding, or you may lose control.

REAR BRAKE PEDAL

Depressing the rear brake pedal will apply the rear brake.

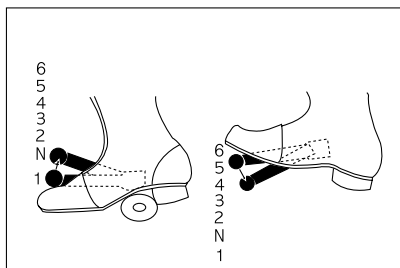
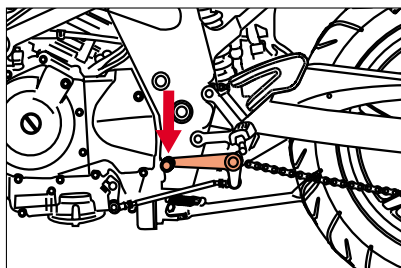
The brake lamp will be illuminated when the rear brake is operated.



WARNING

Apply the brake lightly and with great care on slippery surfaces to avoid skidding.

GEARSHIFT LEVER



The 『GT650PI/SIREI』 have a 6-speed transmission which operates as shown.

To shift properly, squeeze the clutch lever and close the throttle at the same time you operate the gearshift lever.

Whenever a gear is selected, the gearshift lever will return to its normal position ready to select the next gear.

Lift the gearshift lever to upshift and depress the lever to downshift.

Neutral is located between first and 2nd gear.

When neutral is desired, depress or lift the lever halfway between first and 2nd gear.

It is not possible to upshift or downshift more than one gear at a time.

When shifting from first to 2nd gear or 2nd gear to low, neutral will be automatically skipped.

Reduce the motorcycle speed before down-shifting.

When down-shifting, the engine speed should be increased before the clutch is engaged.

This will prevent unnecessary wear on the drive train components and the rear tire.



CAUTION

When the transmission is in neutral, the green indicator lamp on the instrument panel will be lit.

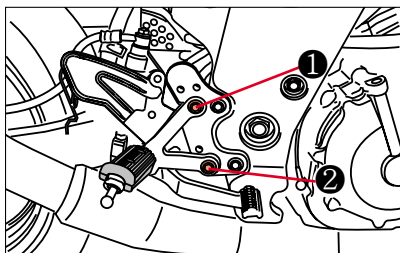
However, even though the light is illuminated, cautiously release the clutch lever slowly to determine whether the transmission is positively in neutral.

FOOTRESTS

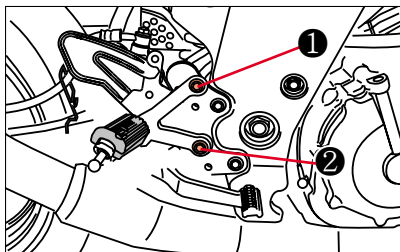
Ⓞ FOOTREST POSITION ADJUSTMENT [FOR 「GT650SEI」 & 「GT650REI」]

The 「GT650SEI」 & 「GT650REI」 have 3 type of the footrest position, right and left.

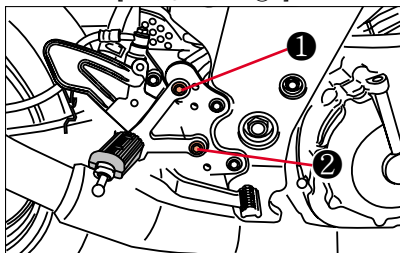
To change the position, remove the M8 mounting bolts ①, ② and install the bolts to the desired position by using the hexagon spanner 6 mm.



[POSITION A]



[POSITION B]



[POSITION C]

The 「GT650SEI」 & 「GT650REI」 are delivered from the factory on position A.

⚠ WARNING

When adjusting the footrest position, the M8 mounting bolts be torqued to the proper specification. If they are not, the footrest can come off unexpectedly.

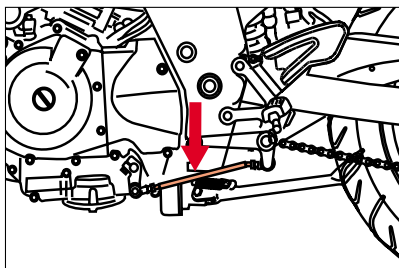
Tighten Torque

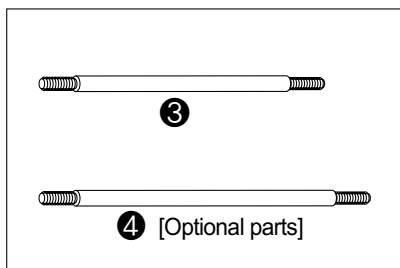
Footrest mounting bolt	2.2 ~ 3.5 kgf · m (22 ~ 35 N · m)
------------------------	--------------------------------------

Ⓞ GEARSHIFT LINK ROD [FOR 「GT650SEI」 & 「GT650REI」's OPTIONAL PARTS]

When the footrests in position C, exchange the gearshift link rod for appropriate riding position.

- Position A or B : Install the gearshift link rod ③
- Position C : Install the gearshift link rod ④





NO	Neutral switch	Clutch lever	Side stand	Engine start
1	●	●	△	Possible
2	△	●	●	Possible
3	●	△	△	Impossible
4	△	●	△	Impossible
5	△	△	●	Impossible

NOTE

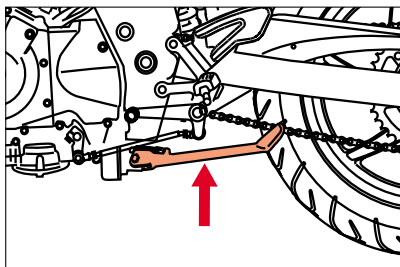
The gearshift link rod ④ is optional parts.

NOTE

● On or Up

△ Off or Down

SIDE STAND



WARNING

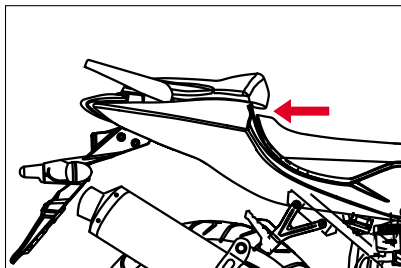
Make sure that the side stand ignition interlock system is working properly before riding.

The 「*GT650PI/SIREI*」 are equipped with the side stand ignition interlock system.

If the transmission is in neutral or the side stand up, you can only start the engine by squeezing the clutch lever.

This side stand ignition interlock system prevents the motorcycle from being started with the side stand down.

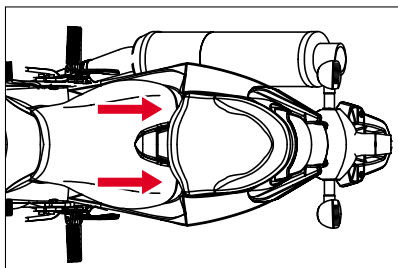
SEAT LOCK



The rear seat lock is located the frame cover under the front side of the rear seat.

To remove the rear seat, insert the ignition key into the rear seat lock and turn it clockwise.

To reinstall the rear seat, slide the seat hook into the seat hook retainer and push down firmly until the seat snaps into the locked position.



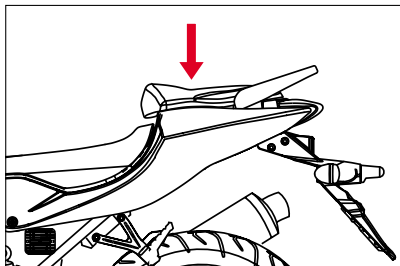
To remove the front seat, remove the two front seat mounting bolts located the rear side of the front seat.

To reinstall the front seat, slide the seat hook into the seat hook retainer and install the two front seat mounting bolts.

TRUNK

A small and light article such as maintenance manual or Owner's manual can be placed under the rear seat.

The tool kit is attached on the back side of the rear seat with a rubber band.



NOTE

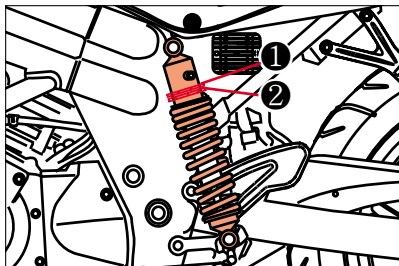
Loading limit of trunk : 2 kg (4.41 lbs)



CAUTION

- The trunk could be heated.
Don't keep anything that doesn't endure heat.
- Don't keep the fragile.
- Check if it is locked.
- The unlocking of rear seat could cause serious accident.
- Don't allow water to get inside the trunk or it could damage.
- Don't keep the valuables in the trunk when leaving unattended.

REAR SHOCK ABSORBER



To adjust the spring pre-load :

1. Loosen the lock nut ① counter-clockwise using the clamp wrench.
2. Turn the adjuster ② clockwise or counter-clockwise to the desired position (the length of the spring) using the clamp wrench.
3. After end of adjustment, tighten the lock nut ① clockwise.

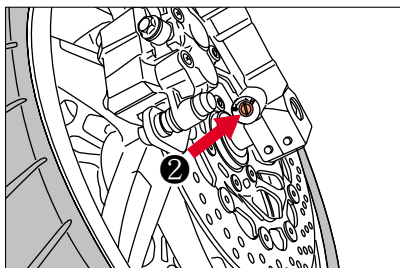
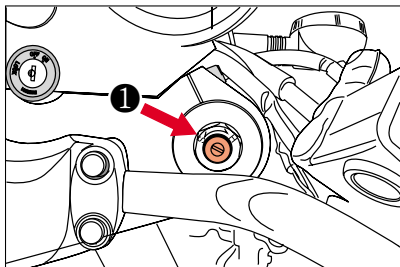
The length of the long spring provides the soft spring preload and the length of the short spring provides the stiff spring preload.

FRONT FORK

The standard settings of front forks are selected to meet various riding conditions such as low to high motorcycle speed and light to heavy load on the motorcycle.

The front forks settings can be adjusted for your preference and fine-tuning.

⦿ DAMPING FORCE ADJUSTMENT



The rebound and compression damping force can be individually adjusted by turning the respective adjusters.

The rebound damping force adjuster ① is located at the top of the front fork.

The compression damping force adjuster ② is located at the bottom of the front fork.

To adjust the damping force turn in the adjuster fully for “S” or “H” direction.

Count the number of clicks from the fully turned-in position.

Fully turned-in “H” direction provides stiffest damping force and turning “S” direction the adjuster will soften damping force.

The rebound and compression damping force is set on “Solo riding standard (refer to below chart)” position at the factory.

⚠ WARNING

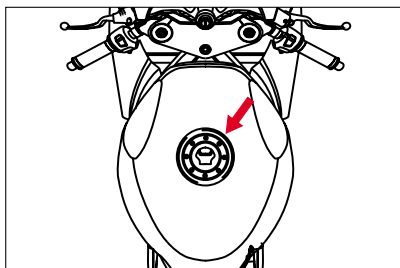
Be sure to adjust the damping force on both front forks equally. Setting one front fork harder than the other will interfere the stability of the motorcycle.

STANDARD FRONT FORK DAMPING FORCE

		Rebound	Compression
Solo riding	Softer	Turn to “S” direction	Turn to “S” direction
	Standard	3 clicks out from end of “H” direction	End of “S” direction
	Stiffer	Turn to “H” direction	Turn to “H” direction
Dual riding		3 clicks out from end of “H” direction	2 clicks out from end of “S” direction

SUPPLY OF GASOLINE, ENGINE OIL AND ENGINE COOLANT

GASOLINE



To open the fuel tank cap, insert the ignition key into the cap lock and turn it clockwise. With the key inserted, pull back the fuel tank cap.

To close the fuel tank cap, push down the fuel tank cap until the locking pin click into position.

The key must be in the cap lock before installing the cap.

WARNING

Gasoline is extremely flammable and toxic. Always observe the following precautions when refueling your

「GT650P/S/REI」.

- Never permit motorcycle refueling by anyone other than an adult.
- Refuel in a well ventilated area.
- Make sure the engine is off and avoid spilling fuel on a hot engine.
- Do not smoke, and make sure there are no open flames or sparks in the area.
- Avoid prolonged contact with skin and breathing of gasoline vapors.
- Keep children and pets away during refueling.

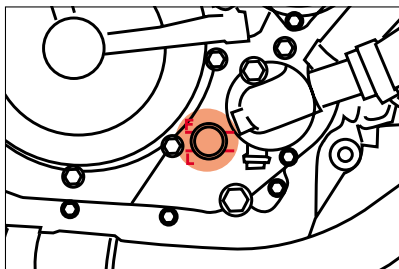
WARNING

Do not overfill the fuel tank. Stop adding fuel when the fuel level reaches the bottom of the filler neck. If you fill the tank beyond this level, fuel may overflow when it expands due to engine heat or heating by the sun.

ENGINE OIL

Long engine life depends much on the selection of quality oil and the periodic changing of the oil.

Daily oil level checks and periodic changes are two of the most important maintenances to be performed.

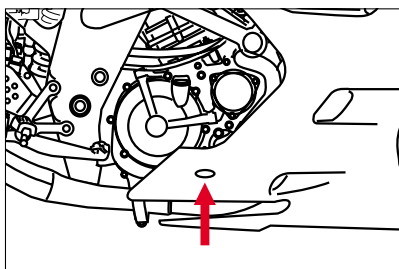


「GT650EI」, 「GT650PEI」 &
「GT650SEI」

⊙ ENGINE OIL LEVEL CHECK

Follow the procedure below to inspect the engine oil level.

1. Start the engine and run it for a few minutes.
2. Stop the engine and wait three minutes.



「GT650REI」



WARNING

The engine and the components of the exhaust system become very hot and remain hot for some time after the engine has been stopped. Before handling these components, wear insulating gloves or wait until the engine and the exhaust system have cooled down.

3. Hold the motorcycle vertically.

NOTE

Position the motorcycle on firm and flat ground.

4. Inspect the engine oil level through the engine oil level lens on the right side on the engine.

NOTE

Engine oil expands and oil level increases when the engine oil is hot. Check and adjust engine oil level when the engine oil is not hot.



CAUTION

Be sure to use the engine oil specified in the FUEL, ENGINE OIL AND ENGINE COOLANT RECOMMENDATION section.



CAUTION

Operating the motorcycle with an incorrect amount of engine oil can damage your motorcycle.

Too little or too much engine oil can damage your engine.

Place the motorcycle on level ground. Check the engine oil level with the engine oil level lens before each use of the motorcycle.



CAUTION

Never operate the motorcycle if the engine oil level is below the "Lower line mark (L)" in the engine oil level lens. Never fill the engine oil above the "Upper line mark (F)". Engine oil level being most suitable about 1 mm under the "Upper line mark (F)" of the engine oil level lens. In case of the engine oil pouring excessively, the engine output being made insufficient.

Be careful not to pour the engine oil excessively.

⊙ ENGINE OIL AND FILTER CHANGE



CAUTION

More frequent servicing may be performed on motorcycles that are used under severe conditions, inspect

- ① Quantity of Engine oil,
 - ② Pollution degree of Engine oil
- before riding the motorcycle and then supplement and replace at any time to prevent damage of the engine.

Change the engine oil and filter, after first running 1,000 km and every running 6,000 km.

The engine oil should always be changed when the engine is hot so that the engine oil will be drained thoroughly from the engine.

The procedure is as follows.

ENGINE OIL CAPACITY	
Oil change	3,000 mℓ
Oil and filter change	3,200 mℓ
Engine overhaul	3,400 mℓ



CAUTION

In case of the engine oil being over filled, the engine output will be reduced. Be careful not to over fill the engine oil.

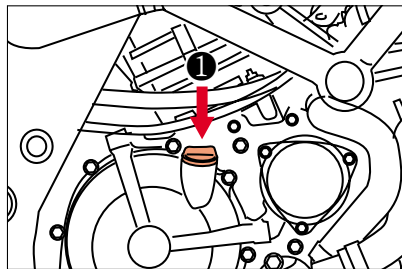
1. Place the motorcycle on the jack or block.



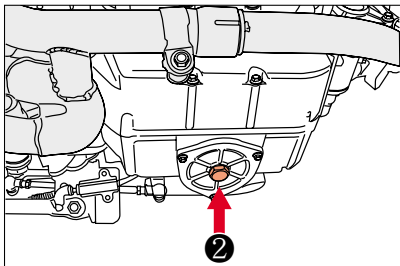
CAUTION

Improper jacking may cause damage to the frame or engine.

2. Place a drain pan under the engine.
3. Remove the engine oil filler plug ①.



4. Drain the engine oil by removing the drain plug ② located on the bottom of the engine.



WARNING

New and used oil can be hazardous.

Children and pets may be harmed by swallowing new or used oil.

Continuous contact with used engine oil has been found to cause skin cancer in laboratory animals. Brief contact with used oil may irritate skin.

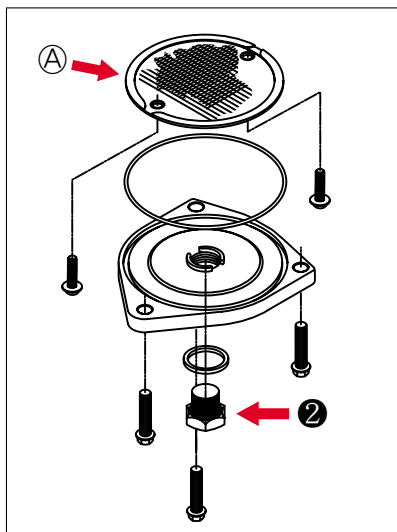
Keep new and used oil and used oil filters away from children and pets. To minimize your exposure to used oil, wear a long-sleeve shirt and moisture-proof gloves (such as dishwashing gloves) when changing oil. If oil contacts your skin, wash thoroughly with soap and water. Launder any clothing or rags if wet with oil. Recycle or properly dispose of used oil and filters.

WARNING

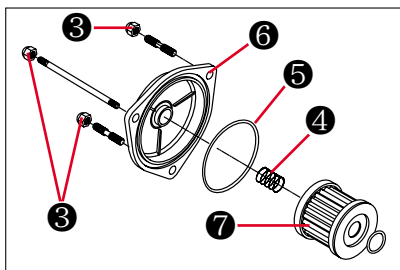
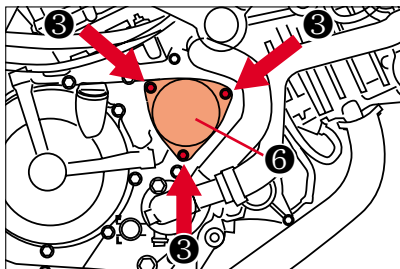
- The engine oil temperature may be high enough to burn you when the drain plug is loosened. Wait until the drain plug is cool enough to touch with bare hands before draining oil.
- Do not touch the hot muffler, or the hot muffler can burn you.

CAUTION

Remove, inspect and clean the oil strainer (A) when replacing the Engine oil (specially, when first replacing).



5. Remove the three nuts ③ holding the engine oil filter cap ⑥ in place.

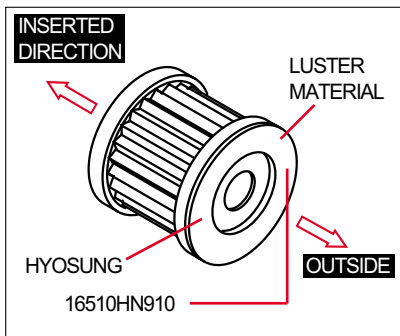


6. Replace the engine oil filter ⑦ with a new one.

⚠ CAUTION

Insert the filter so that surface of the filter hole turn toward the engine.

■ ENGINE OIL FILTER INSTALLATION



⚠ CAUTION

When installing the engine oil filter, the “HYOSUNG” character and “16510HN910” part’s NO. must be installed toward the outside, otherwise the engine may be damaged.

7. Before replacing the engine oil filter cap ⑥, be sure to check that the engine oil filter spring ④ and the “O” ring ⑤ are installed correctly. Use new “O” ring each time the engine oil filter element is replaced.
8. Replace the oil filter cap ⑥ and tighten the nuts securely but do not over tighten them.
9. Replace the engine oil drain plug ② and tighten it securely. At this time, insert the gasket necessarily.
10. Pour the fresh engine oil through the engine oil filler hole. Approximately 3,200 ml of the engine oil will be required.

⚠ CAUTION

Approximately 3,000 ml of the engine oil must be required when changing the engine oil only without replacing the engine oil filter.

⚠ CAUTION

In case of the engine oil being over filled, the engine output will be reduced. Be careful not to over fill the engine oil.



CAUTION

Failure to use the correct oil can damage your motorcycle.

Engine damage may occur if you use the engine oil that does not meet Hyosung's specifications.

Be sure to use the engine oil specified in the FUEL, ENGINE OIL AND ENGINE COOLANT RECOMMENDATION section.

11. Install the engine oil filler plug ①.
12. Start the engine and allow it idle for a few minutes. Check to see that no the engine oil is leaking from the engine oil filter cap ⑥ and engine oil drain plug ②.
13. Check the engine oil level according to Engine Oil Level Check procedure.

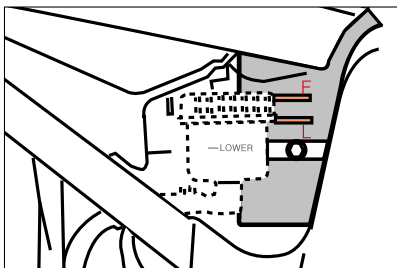


CAUTION

Engine oil leaks from around the engine oil filter cap or drain plug indicate incorrect installation or the "O" ring / gasket damage. If you find any leaks or are not sure that the engine oil filter cap / drain plug has been properly installed, have the motorcycle inspected by your Hyosung dealer or qualified mechanic.

ENGINE COOLANT

Ⓞ COOLANT LEVEL



The coolant should be kept between the "F"(FULL) and "L"(LOW) level lines in the reservoir tank at all times. Inspect the level every time before riding while the motorcycle vertically. If the coolant is found lower than the "L" level line, add properly mixed coolant in the following way :

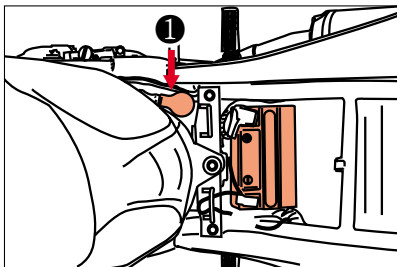
If the reservoir tank is emptied, pour the engine coolant to the reservoir tank and radiator.



WARNING

Wait for the engine to cool down before checking or topping up coolant level.

1. Remove the front seat.



2. Remove the reservoir tank filler cap ①.
3. Add properly mixed coolant through the filler hole until it reaches the "F" line of the reservoir tank.

Refer to the FUEL, ENGINE OIL AND ENGINE COOLANT RECOMMENDATION section (17 page).



CAUTION

Never top up beyond the “F” line or coolant will leak out when the engine is running.

4. Install the reservoir tank filler cap ①.



CAUTION

If coolant level drops too quickly or the reservoir tank is empty, check the cooling circuit for leaks. Have the repair carried out at an authorized Hyosung dealer.



WARNING

Engine coolant is harmful or fatal if swallowed or inhaled.

Do not drink anti-freeze or coolant solution. If swallowed, do induce vomiting. Immediately contact a poison control center or a physician. Avoid inhaling mist or hot vapors ; if inhaled, remove to fresh air.

If coolant gets in eyes, flush eyes with water and seek medical attention. Wash thoroughly after handling. Solution can be poisonous to animals. Keep out of the reach of children and animals.

NOTE

Adding only water will dilute the engine coolant and reduce its effectiveness. Add 50 : 50 mixture of engine coolant and water.

Ⓞ CHANGING THE COOLANT

Change the coolant every two years.

NOTE

About 1.6 ℓ of coolant will required when filling the radiator and reservoir tank.

⊙ SIDE COWLING INNER
[FOR 「GT650SEI」
& 「GT650REI」]

The 「GT650SEI」 & 「GT650REI」 have the "side cowling inner" ① at the rightside.

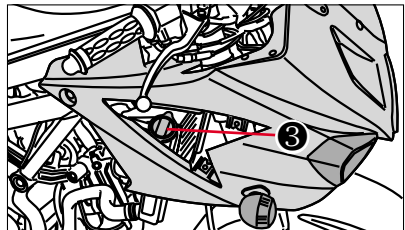
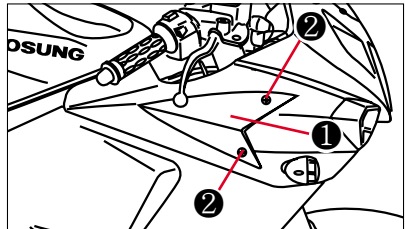
Use the "side cowling inner" to operate the radiator cap ③.

To disassemble the "side cowling inner", remove the two bolts ②.

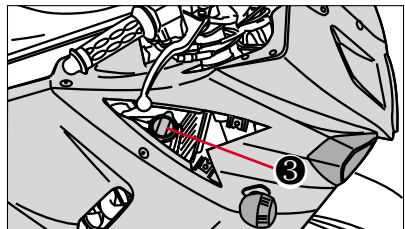
⚠ WARNING

You can be injured by scalding fluid or steam if you open the radiator cap when the engine is hot.

After the engine cools, wrap a thick cloth around cap and carefully remove the cap by turning it a quarter to allow pressure to escape and then turn the cap all the way off.



「GT650SEI」



「GT650REI」

RIDING TIPS

STARTING THE ENGINE

Before attempting to start the engine make sure :

1. Inspect every day once before riding the motorcycle.
2. The transmission is in neutral.
3. The ignition switch is in the "ON" position.
4. The engine stop switch is in the "○" position.
5. Moving the side stand to the fully upper position.
6. Squeeze the clutch lever.

NOTE

Push the starter switch after about three seconds whenever the ignition switch is set to "ON" position with engine stopped as a test of the electric injection system operation.

If push the starter switch before about three seconds, the engine will be started badly and the spark plugs get wetted.



WARNING

The 「 *GT650/PISTREI* 」 are equipped with the side stand ignition interlock system.

If the transmission is in neutral or the side stand up, you can only start the engine by squeezing in the clutch lever.

This side stand ignition interlock system prevents the motorcycle from being started with the side stand down.

Make sure that the side stand ignition interlock system is working properly before riding.



CAUTION

The head lamp, position lamp, meter lamp, tail lamp and license plate lamp on this motorcycle always comes on when the ignition switch is turned to the "ON" position.



WARNING

Running the engine indoors or in a garage can be hazardous.

Exhaust gas contains carbon monoxide, a gas that is colorless and odorless and can cause death or severe injury.

Only run the engine outdoors where there is a fresh air.



CAUTION

Running the engine too long without riding may cause the engine to overheat.

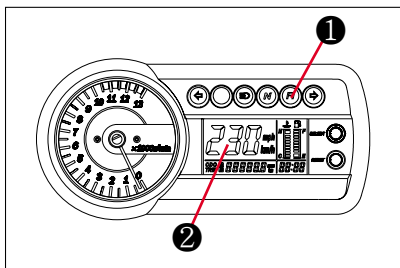
Overheating can result in damage to internal engine components and discoloration of exhaust pipes.

Shut the engine off if you cannot begin your ride promptly.

CAUTION

- Release the starter switch immediately after the motorcycle has started.
- Avoid pressing the starter switch when the engine is running, or the starting motor damage.
- Do not engage the starting motor for more than five seconds at a time as it may overheat the wiring harness and starting motor.

If the engine does not start after several attempts, check the fuel supply and ignition system.
(Refer for Page 94)



CAUTION

If the LCD display panel ② indicates “FI” letters, and the “FI” check lamp “FI” ① comes on and remains lit, it means that the electric fuel injection system is not operating correctly. Stop the engine immediately and contact an authorized Hyosung dealer. Do not use the motorcycle with disabled electric fuel injection system, in order to avoid damaging the engine components.

STARTING OFF

WARNING

Riding these motorcycles at excessive speed increases your chances of losing control of the motorcycle.

This may result in an accident.

Always ride within the limits of your skills, your motorcycle, and the riding conditions.

WARNING

Removing your hands from the handlebars or feet from the footrests during operation can be hazardous. If you remove even one hand or foot from the motorcycle, you can reduce your ability to control the motorcycle.

Always keep both hands on the handlebars and both feet on the footrests of your motorcycle during operation.

WARNING

Sudden side winds, which can occur when being passed by large vehicles, at tunnel exits or in hilly areas, can upset your control.

Reduce your speed and be alert to side winds.

Squeeze the clutch lever and pause momentarily. Engage first gear by depressing the gearshift lever downward.

Turn the throttle grip toward you and at the same time release the clutch lever gently and smoothly. As the clutch engages, the motorcycle will start moving forward.

To shift to the next higher gear, accelerate gently, then close the throttle and squeeze the clutch lever simultaneously. Lift the gearshift lever upward to select the next gear and release the clutch lever and open the throttle again.

Select the gears in this manner until sixth gear is reached.

WARNING

Downshifting while the motorcycle is leaned over in a corner may cause rear wheel skid and loss of control.

Reduce your speed and downshift before entering corner.

WARNING

Do not turn for the ignition switch to its "OFF" or "LOCK" position or the engine stop switch to its "X" position while riding the motorcycle.

WARNING

Opening the throttle suddenly can be hazardous.

The front wheel can lift off the ground and cause loss of control of the motorcycle.

Always open the throttle gradually when you accelerate.

USING THE TRANSMISSION

The transmission is provided to keep the engine operating smoothly in its normal operating speed range. The gear ratios have been carefully chosen to meet the characteristics of the engine. The rider should always select the most suitable gear for the prevailing conditions.

WARNING

Downshifting when engine speed is too high can ;

- cause the rear wheel to skid and lose traction due to increased engine braking, resulting in an accident ; or
- force the engine to overrev in the lower gear, resulting in engine damage.

WARNING

Shifting incorrectly can be hazardous.

Engine and drive chain damage can occur if you do not shift correctly.

Slow down before downshifting and always release the throttle every time you shift gears.

CAUTION

Revvng the engine into the red zone of the tachometer can cause severe engine damage.

Never allow the engine to rev into the red zone of the tachometer in any gear.

RIDING ON HILLS

When climbing steep hills, the motorcycle may begin to slow down and show lack of power. At this point, you should shift to a lower gear so that the engine will again be operating in its normal power range. Shift gear rapidly to prevent the motorcycle from losing momentum.

When riding down a steep hill, the engine may be used for braking by shifting to a lower gear.

Be careful, however, not to allow the engine to overrev.



WARNING

Operating this motorcycle on steep hills can be hazardous.

Never operate this motorcycle on steep hills.

STOPPING AND PARKING

1. Turn the throttle grip away from you to close the throttle completely.
2. Apply the front and rear brakes evenly at the same time.
3. Downshift through the gears as road speed decreases.
4. Select neutral with the clutch lever squeezed towards the grip (disengaged position) just before the motorcycle stops. Neutral position can be confirmed by observing the neutral indicator lamp.



WARNING

Inexperienced riders tend to underutilize the front brake. This can cause excessive stopping distance and lead to a collision. Using only the front or rear brake can cause skidding and loss of control.

Apply both brakes evenly and at the same time.



WARNING

Hard braking while turning may cause wheel skid and loss of control.

Brake before you begin to turn.



WARNING

Hard braking on wet, loose, rough, or other slippery surfaces can cause wheel skid and loss of control.

Brake lightly and carefully on slippery or irregular surfaces.



WARNING

Following another vehicle too closely can lead to a collision. As vehicle speeds increase, stopping distance increases progressively.

Be sure you have a safe stopping distance between you and the vehicle in front of you.

5. Park the motorcycle on a firm, flat surface where it will not fall over.



WARNING

A hot muffler can burn you. The muffler will be hot enough to burn you for some time after stopping the engine.

Park the motorcycle where pedestrians or children are not likely to touch the muffler.

6. Turn the ignition key to the "OFF" position.
7. Push down the ignition key from the "OFF" position, come up again and turn it to the "LOCK" position.
8. Remove the ignition key.

BREAK-IN

This section explains how important proper break-in is to achieve maximum life and performance from your new **Hyosung**.

The following guidelines explain proper break-in procedures.

★ MAXIMUM THROTTLE OPENING RECOMMENDATIONS

The table below shows the maximum throttle opening recommendation during the break-in period.

Initial 800 km (500 miles)	Less than 1/2 throttle
Up to 1,600 km (1,000 miles)	Less than 3/4 throttle

★ AVOID CONSTANT LOW SPEED

Operating the engine at constant low speed (light load) can cause parts to glaze and not seat in. Allow the engine to accelerate freely through the gears, without exceeding the recommended maximum limits. Do not, however, use full throttle for the first 1,600 km (1,000 miles).

★ VARY THE ENGINE SPEED

The engine speed should be varied and not held at a constant speed.

This allows the parts to be "loaded" with pressure and then unloaded, allowing the parts to cool.

This aids the mating process of the parts. It is essential that some stress be placed on the engine components during break-in to ensure this mating process.

Do not, though, apply excessive load on the engine.

★ BREAKING IN THE NEW TIRES

New tires need proper break-in to assure maximum performance, just as the engine does.

Wear in the tread surface by gradually increasing your cornering lean angles over the first 160 km (100 miles) before attempting maximum performance. Avoid hard acceleration, hard cornering, and hard braking for the first 160 km (100 miles).

WARNING

Failure to perform break-in of the tires could cause tire slip and loss of control. Use extra care when riding on new tire. Perform proper break-in of the tire as described in this section and avoid hard acceleration, hard cornering, and hard braking for the first 160 km (100 miles).

★ ALLOW THE ENGINE OIL TO CIRCULATE BEFORE RIDING

Allow sufficient idling time after warm or cold engine start up before applying load or revving the engine. This allows time for the lubricating oil to reach all critical engine components.

★ OBSERVE YOUR FIRST, AND MOST IMPORTANT 1,000 km SERVICE

The 1,000 km (600 miles) service is the most important service your motorcycle will receive.

During break-in procedures, all of the engine components will have worn in and all of the other parts will have seated in.

All adjustments will be restored, all fasteners will be tightened, and the dirty engine oil and engine oil filter will be replaced.

Timely performance of the 1,000 km (600 miles) service will ensure optimum service life and performance from the engine.

CAUTION

Service should may be performed before 1,000 km (600 miles) on motorcycle that are used under severe conditions.

CAUTION

The 1,000 km (600 miles) service should be performed as outlined in the INSPECTION AND MAINTENANCE section of this Owner's Manual. Pay particular attention to the 「CAUTION」 and 「WARNING」 in that section.

INSPECTION BEFORE RIDING

WARNING

Failure to inspect the motorcycle before operating it can be hazardous. Failure to perform proper maintenance can also be hazardous.

Failure to inspect and maintain your motorcycle increases the chances of an accident or equipment damage.

Always inspect your motorcycle each time you use it to make sure it is in safe operating condition. Refer to the **INSPECTION AND MAINTENANCE** section in this owner's manual.

WARNING

Operating this motorcycle with improper tires, or with improper or uneven tire pressure can be hazardous.

If you use improper tires or improper or uneven tire pressure, you may lose control of the motorcycle. This will increase your risk of an accident.

Always use the size and type tires specified in this owner's manual. Always maintain proper tire pressure as described in the **INSPECTION AND MAINTENANCE** section.

WARNING

Operating this motorcycle with improper modifications can be hazardous.

Improper installation of accessories or modification of this motorcycle may cause changes in handling. In some situations, this could lead to an accident.

Never modify this motorcycle through improper installation or use of accessories.

WARNING

Overloading this motorcycle or carrying or towing cargo improperly can be hazardous.

Overloading or improper towing could cause changes in motorcycle handling which could lead to an accident.

Never exceed the stated load capacity for this motorcycle.

Check the condition of the motorcycle to help make sure that you do not have mechanical problems, or you might get stranded somewhere when you ride. Before riding the motorcycle, be sure to check the following items. Be sure your motorcycle is in good condition for the personal safety of the rider and protection of the motorcycle.



WARNING

Checking maintenance items when the engine is running can be hazardous.

You could be severely injured if your hands or clothing gets caught in moving engine parts.

Shut the engine off when performing maintenance checks, except when checking the lamp, engine stop switch and throttle.

WHAT TO CHECK	CHECK FOR :
Steering	<ul style="list-style-type: none"> • Smoothness • No restriction of movement • No play or looseness
Throttle	<ul style="list-style-type: none"> • Correct play in the throttle cable • Smooth operation and positive return of the throttle grip to the closed position
Clutch	<ul style="list-style-type: none"> • Correct lever play • Smooth and progressive action
Brakes	<ul style="list-style-type: none"> • Proper operation • Fluid level in the reservoir to be above "LOWER" line • Correct pedal and lever play • No "sponginess" • No fluid leakage • Brake pads not to be worn down to the limit line
Suspension	Smooth movement
Fuel	<ul style="list-style-type: none"> • Enough fuel for the planned distance of operation • Fuel hoses connected securely • No damage to fuel tank or cap • Tank cap closed securely

WHAT TO CHECK	CHECK FOR :
Gerashift lever	<ul style="list-style-type: none"> • No damage lever • Smooth operation
Drive chain	<ul style="list-style-type: none"> • Correct tension or slack • Adequate lubrication • No excessive wear or damage
Tires	<ul style="list-style-type: none"> • Correct pressure • Adequate tread depth • No cracks or cuts
Engine oil	<ul style="list-style-type: none"> • Correct level and pollution degree of engine oil • No engine oil leakage
Cooling system	<ul style="list-style-type: none"> • Proper coolant level • No coolant leakage
Lamp	Operation of all lamps and indicators
Horn	Correct function
Rear-view mirror & Reflector	No dust or damage
Engine stop switch	Correct function
Side stand / Ignition interlock switch	Proper operation
General condition	<ul style="list-style-type: none"> • Bolts and nuts are tight • No rattle from any parts of motorcycle with the engine running • No visible evidence of damage



CAUTION

- The engine and muffler are too hot right after engine stopped, please be careful not to be burned.
- Don't inspect the engine indoor where there is little or no ventilation available. The exhaust gas is extremely poisonous.

PERIODIC MAINTENANCE

The chart indicates the intervals between periodic service in kilometers.

At the end of each interval, be sure to inspect, check, lubricate and service as instructed.

If your motorcycle is used under high stress conditions such as continuous full throttle operation, or is operated in a dusty climate, certain services should be performed more often to ensure reliability of the machine as explained in the maintenance section.

Your **Hyosung** dealer can provide you with further guide lines.

Steering components, suspensions and require very special and careful servicing. For maximum safety we suggest that you have these items inspected and serviced by your authorized **Hyosung** dealer or a qualified service mechanic.



WARNING

Improper maintenance or failure to perform recommended maintenance increases the chance of an accident or motorcycle damage.

Always follow the inspection and maintenance recommendations and schedules in this owner's manual.

Ask your Hyosung dealer or a qualified mechanic to do the maintenance items marked with a pentagram (★).

You may perform the unmarked maintenance items by referring to the instructions in this section, if you have mechanical experience.

If you are not sure how to do any of the jobs, have your Hyosung dealer or a qualified mechanic do them.



WARNING

Running the engine indoors or in a garage can be hazardous.

Exhaust gas contains carbon monoxide, a gas that is colorless and odorless and can cause death or severe injury.

Only run the engine outdoors where there is fresh air.



CAUTION

Using poor quality replacement parts can cause your motorcycle to wear more quickly and may shorten its useful life.

Use only genuine Hyosung replacement parts or their equivalent.

N O T E

The MAINTENANCE CHART specifies the minimum requirements for maintenance. If you use your motorcycle under severe conditions, perform maintenance more often than shown in the chart. If you have any questions regarding maintenance intervals, consult your Hyosung dealer or a qualified mechanic.

Ⓞ LUBRICATION POINTS

Proper lubrication is important for smooth and long life of each working part of your motorcycle and also for safe riding.

It is a good practice to lubricate the motorcycle after a long rough ride or after it gets wet in the rain or after washing it.

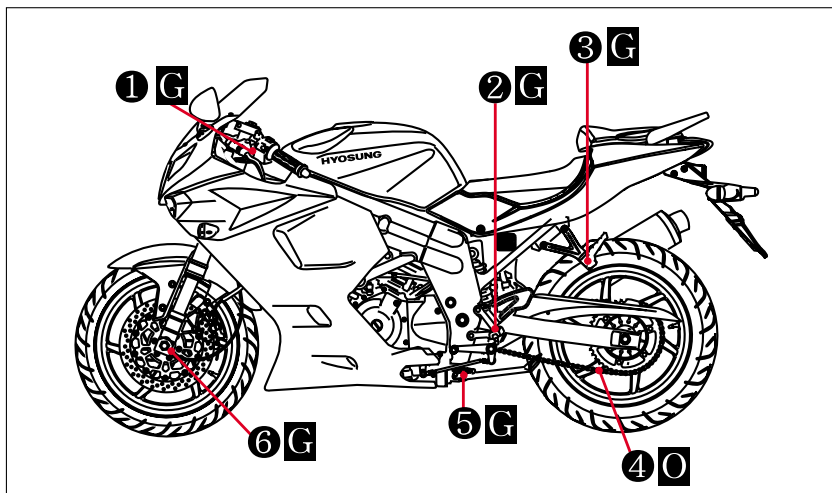
Major lubrication points are indicated as follows.

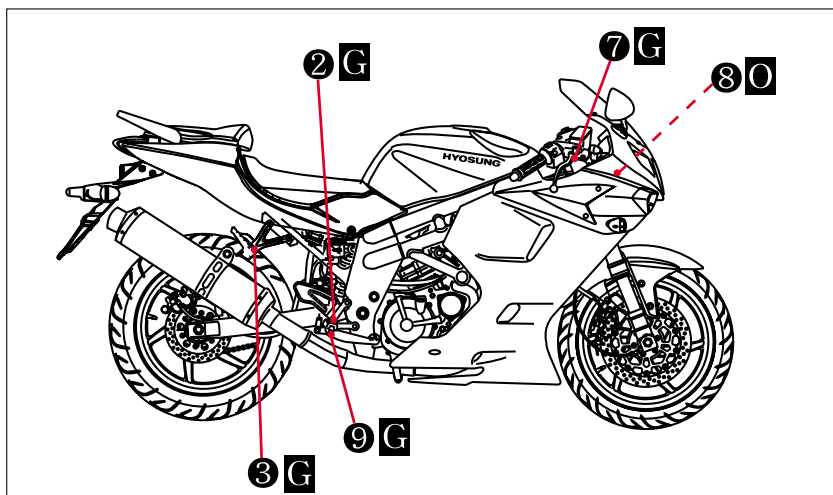


CAUTION

Lubricating switches can damage the switches.

Do not apply grease and oil to the switches.





- ① Clutch lever holder & Clutch cable
- ② Footrests pivot
- ③ Passenger footrests pivot
- ④ Drive chain
- ⑤ Side stand pivot and spring hook
- ⑥ Speedo sensor
- ⑦ Front brake lever holder
- ⑧ Throttle cable
- ⑨ Rear brake pedal pivot

⓪ - Motor oil, ☒ - Grease

NOTE

“-----” : means the invisible parts.

⊙ ENGINE

Item	Interval	First 1,000 km	Every 6,000 km	Every 12,000 km
Air cleaner element		Clean every 3,000 km · Replace every 12,000 km		
Exhaust pipe nuts and muffler mounting bolts ★		Tighten	Tighten	—
Valve clearance adjust ★		Inspect	Inspect	—
Cylinder head bolt ★		Tighten	Tighten	—
Spark plug		Clean	Clean	Replace
Fuel hose		Inspect	Inspect	—
		Replace every 4 years		
Engine oil		Replace	Replace	—
Engine oil filter		Replace	Replace	—
Throttle cable		Inspect	Inspect	—
Idle speed ★		Inspect	Inspect	—
Clutch ★		Inspect	Inspect	—
Engine coolant ★		Replace every 2 years		
Radiator hose ★		—	Inspect	—
		Replace every 4 years		

⊙ CHASSIS

Item	Interval	First 1,000 km	Every 6,000 km	Every 12,000 km
Drive chain ★		Clean and lubricate every 1,000 km		
Brake ★		Inspect	Inspect	—
Brake hose ★		Inspect	Inspect	—
		Replace every 4 years		
Brake fluid ★		Inspect	Inspect	—
		Replace every 2 years		
Tire		Inspect	Inspect	—
Steering ★		Inspect	Inspect	—
Front forks ★		—	Inspect	—
Rear shock absorber ★		—	Inspect	—
Chassis nuts and bolts ★		Tighten	Tighten	—
General lubrication		Lubricate	Lubricate	—

N O T E

★: Ask your Hysung dealer or qualified mechanic to do the maintenance items marked.

INSPECTION AND MAINTENANCE

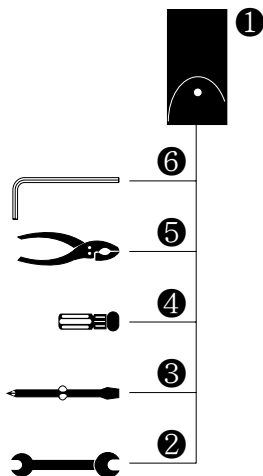
TOOL

To assist you in the performance of periodic maintenance, a tool kit is supplied.

The tool kit is attached on the back of the rear seat with a rubber band.

The tool kit consists of the following items.

NO.	NAME
1	Tool bag
2	14 × 17 mm open end spanner
3	Combination screw driver
4	Screw driver handle
5	Pliers
6	Hexagon wrench 6 mm



ENGINE OIL

Check if there is leakage from crankcase.

FUEL HOSE

Inspect the fuel hoses for damage and fuel leakage. If any defect are found the fuel hoses must be replaced.

Replace the fuel hoses every 4 years.

GASOLINE

Check if there is leakage from fuel tank, fuel pump, hoses and electric fuel injection system.

ENGINE COOLANT

Check if there is leakage from the radiator, coolant hose.

RADIATOR

Check if there is damage from the radiator.

RADIATOR HOSE

Check to see the radiator hoses for crack, damage or engine coolant leakage.

If any defects are found, replace the radiator hoses with new ones.

Replace the radiator hoses every 4 years.

RUBBER CAP OF CABLES

Wipe them up with a cloth or towel when washing.

EXHAUST PIPE AND MUFFLER

Inspect the exhaust pipe and muffler joint for loosening.

FRONT AND REAR SUSPENSIONS

Periodically check for the following :

- Keep the front brake lever pulled in and push down on the handlebars repeatedly to compress the front fork. The fork should compress in a smooth movement and must show no traces of oil on the legs.
- Inspect the rear shock absorber for oil leakage and spring condition.
- Ensure that all components are properly tightened and check the front and rear suspension articulated joints for correct operation.
- Inspect whether the steering stem is well assembled while moving front fork up/downwards and/or forward/backward.

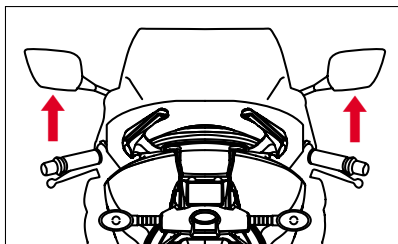


CAUTION

In the event of malfunction or if the suspension needs expert servicing, contact an authorised Hyosung dealer.

REAR-VIEW MIRROR

Check if the mirror shows the rear and/or side views.



REFLECTOR

Check if the reflector is dusty or damaged.

BATTERY

⊙ INSPECTION OF BATTERY SOLUTION LEVEL

The battery is located under the front seat.

MF (Maintenance Free) battery of airtight type is used for this motorcycle.

It is not necessary to inspect or supplement battery fluid.

However, have your dealer check the charging condition of the battery periodically.



CAUTION

- Do not remove airtight cover as it is a permanently sealed type battery.
- Keep separate from the motorcycle if not used for a long time to reduce electric discharge and electric leakage.
- Remove the ⊖ negative terminal when storing the motorcycle.



WARNING

Never invert the battery cables.

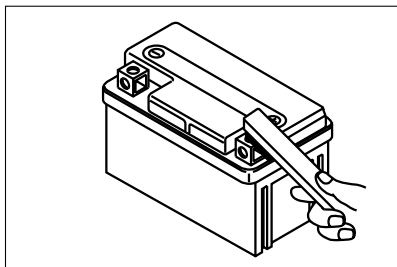
Ensure that the ignition switch is in position "OFF" before connecting or disconnecting the battery, otherwise some components might damage.

⊙ CHECK AND CLEAN OF BATTERY TERMINAL

Clean the battery terminal when it is dusty or rusted.

1. Set the ignition switch "OFF" position.
2. Remove the front seat.
3. Check the battery lead wire and terminal.
4. If necessary : disconnect the negative ⊖ battery wire first, then disconnect the positive ⊕ battery wire.
Remove the battery.
5. Clean the terminal.
If there is white dust, clean it with warm water.
6. Connect the battery wires and grease the terminal lightly.

When reinstalling the battery, be sure to connect the positive ⊕ battery wire first, then connect the negative ⊖ battery wire.





CAUTION

- Keep the battery away from fires.
- When disconnecting the battery wire, be sure to remove the negative \ominus battery wire first with the ignition switch “OFF” position, then remove the positive \oplus battery wire.

When reinstalling the battery, be sure to connect the positive \oplus battery wire first, then connect the negative \ominus battery wire.

- Ensure the battery wires are fastened tightly.
- Incorrect installation of the battery will reverse the terminal position resulting in possible electrical system damage due to incorrect battery lead connection.
The red lead wire must go to the positive \oplus terminal and the black (or black with white tracer) lead wire must go to the negative \ominus terminal.
- Never charge a battery while still in the machine as damage may result to the battery or regulator / rectifier.

AIR CLEANER

The air cleaner is located under the fuel tank.

If the air cleaner element has become clogged with dust, intake resistance will increase with a resultant decrease in power output and an increase in fuel consumption. If riding under severe conditions must be cleaned or replaced more frequently than maintenance schedule. Check and clean the air cleaner element periodically according to the following procedure.



CAUTION

Never operate the engine without the element in position.

Operating the engine without the air cleaner element will increase engine wear. Always be sure that the air cleaner element is in excellent operational condition.

The life of the engine depends largely on this single component.

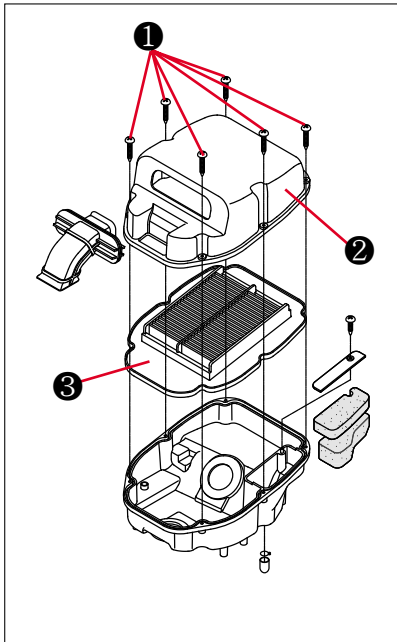


CAUTION

If the air cleaner element is polluted it will result in starting difficulty, engine output reduced, combustion efficiency decline, and sooty smoke (black smoke). At this time, inspect and clean the air cleaner element and confirm.

To remove the air cleaner element :

1. Remove the fuel tank.
2. Remove the six screws ①.
3. Pull up the air cleaner cap ②, and the air cleaner element ③.



4. Clean the air cleaner element for the following :
- 1) When the air cleaner element clean with the air gun, necessarily blow at the inside by compressed air.
 - 2) Carefully examine the air cleaner element for tears during cleaning. Replace it with a new one if it is torn.
 - 3) Assemble the element completely or damage severely the engine.
 - 4) Be careful not to allow water to go inside the air cleaner element.

CAUTION

Before and during the cleaning operation, inspect the element for tears. A torn element must be replaced. Be sure to install the element snugly and correctly, so that no incoming air will bypass it. Remember, rapid wear of the piston rings and cylinder bore is often caused by a defective or poorly fitted element.

CAUTION

- When the air cleaner element is not installed correctly, dust can go inside and severely damage the engine.
- Be careful not to allow water to go into the element while washing.

CAUTION

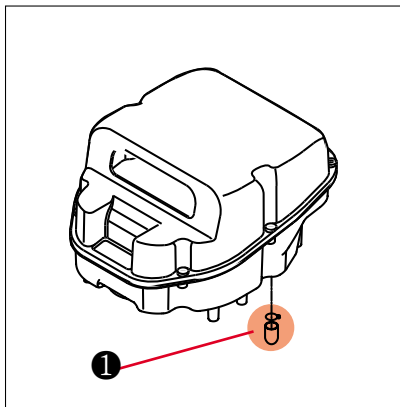
More frequent servicing may be performed on the motorcycle that are used under severe conditions, also clean the air cleaner element when replacing the oil to prevent damage of the engine.

WARNING

Operating the engine without the air cleaner element in place can be hazardous.

Never run the engine without the air cleaner element in place.

⊙ AIR CLEANER OIL DRAIN PLUG

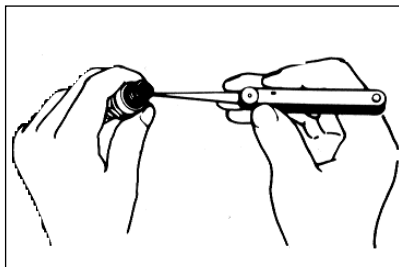


Inspect the plug ① and drain water and oil at the periodic maintenance interval.

The air cleaner oil drain plug ① is located beneath the air cleaner case.

SPARK PLUG

Check the spark plugs every time a scheduled maintenance service is performed.



At regular intervals, remove the spark plugs and clean off any carbon deposits or replace as required.

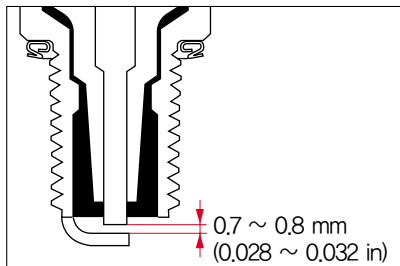
To remove and clean the spark plugs :

WARNING

Before carrying out the following operations, let the engine and the muffler cool down to ambient temperature, in order to avoid burns.

1. Disconnect spark plug caps.
2. Remove all the dirt from the base of the spark plugs, then unscrew it and extract it from its seat, taking care that neither dust nor other substances enter the cylinder.
3. Make sure that there are neither carbon deposits, nor corrosion marks on the electrode and on the central part : if necessary, clean them with the special cleaners for spark plugs, with an iron wire and / or a metal brush.
4. Energetically blow some air, in order to prevent the removed residues from get-

ting into the engine. Change the spark plugs if it shows cracks on the insulating material, corroded electrodes or excessive deposits.



5. Check the electrode gap with a thickness gauge. The gap must be 0.7 ~ 0.8 mm (0.028 ~ 0.032 in) if necessary, adjust it.
6. Make sure that the washer is in good condition. Fit the washer and screw the spark plug finger-tight to avoid damaging the thread.
7. Tighten using the spanner supplied with the tool kit. Screw in each spark plug by one half turn to compress the washer.

TIGHTENING TORQUE

SPARK PLUG	11 N · m (1.1 kgf · m)
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PLUG REPLACEMENT GUIDE

Hotter type	CR7E
Standard type	CR8E
Colder type	CR9E



CAUTION

The spark plug must be tightened firmly, otherwise the engine may overheat and severe damage may occur.

Use recommended spark plugs only. A spark plug of the wrong rating may shorten engine life and cause loss of performance.

8. Fit the spark plugs cap properly, to prevent it coming off due to engine vibration.

IDLING ADJUSTMENT

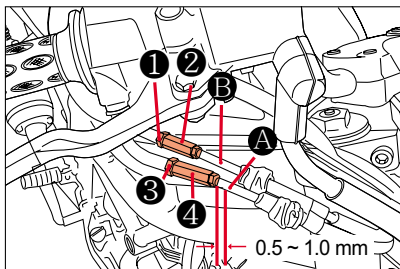
This engine features EFI (electronic fuel injection). The idle speed is not adjustable.

CAUTION

Do not attempt to make any adjustment to the idle speed as it may permanently damage the EFI system.

- Turn the adjuster ④ in or out until the throttle cable play is between 0.5 ~ 1.0 mm (0.02 ~ 0.04 in).
- Tighten the lock nut ③ while holding the adjuster ④.
- While holding the throttle grip at the fully closed position, slowly turn out the adjuster ② to feel resistance.
- Tighten the lock nut ① while holding the adjuster ②.
- Check free play again.
- Cover the protection.

THROTTLE CABLE PLAY ADJUSTMENT



This motorcycle has a twin throttle cable system. Cable ① is for throttle cable and cable ② is for returning cable.

To adjust the cable play :

- Hold the motorcycle vertically.
- Uncover the protection.
- Loosen the lock nut ①.
- Turn in the adjuster ② fully.
- Loosen the lock nut ③.

WARNING

Inadequate throttle cable play can cause engine speed to rise suddenly when you turn the throttle grip. This can lead to loss of rider control.

Adjust the throttle cable play so that engine idle speed does not rise due to throttle grip movement.

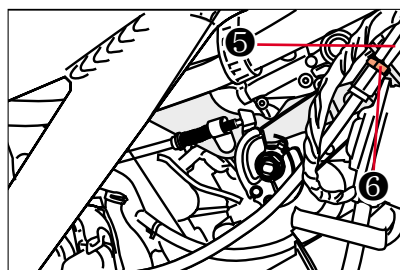
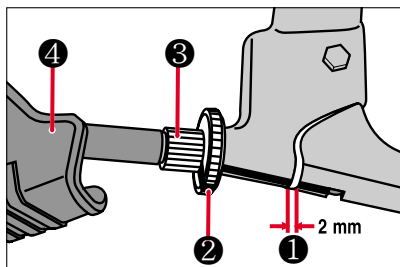
CAUTION

When finished, turn the handlebars to make sure its movement does not affect the engine idle rpm and check that the throttle grip - when opened and then released - returns smoothly to the closed position.

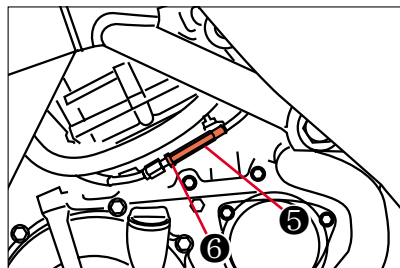
CLUTCH CABLE ADJUSTMENT

At each maintenance interval, adjust the clutch cable play by means of clutch cable adjuster.

The cable play should be 2 mm (0.08 in) as measured at the clutch lever holder before the clutch begins to disengage.



「GT650E1」, 「GT650PE1」 &
「GT650SE1」



「GT650ZE1」

- ① Clutch lever play
- ② Clutch lever adjuster lock nut
- ③ Clutch lever adjuster
- ④ Rubber boot
- ⑤ Clutch cable adjuster
- ⑥ Clutch cable adjuster lock nut

If you find the play of the clutch lever incorrect, adjust it in the following way :

⊙ CLUTCH CABLE PLAY ADJUSTMENT

- A basis adjustment be allowed by the clutch lever adjuster ③.
- Uncover the rubber boot ④.
- Loosen the lock nut ② counter-clockwise.
- Turn the clutch lever adjuster ③ in or out to acquire the specified play.
- After end of adjustment, tighten the lock nut ② clockwise fully and cover the rubber boot ④.
- If not adjust by the clutch lever adjuster ③, adjust by the clutch cable adjuster ⑤.
- Loosen the clutch cable adjuster lock nut ⑥.
- Turn the clutch cable adjuster ⑤ in or out to acquire the specified play.
- After end of adjustment, tighten the lock nut ⑥.
- The clutch cable should be lubricated with a light weight oil whenever it is adjusted.

Clutch cable play ① 2 mm (0.08 in)

DRIVE CHAIN

The chain may require more frequent adjustment than it is with periodic maintenance depending upon your riding conditions.

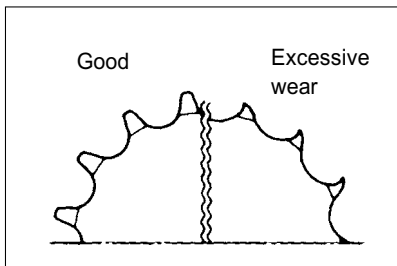
Check the chain every 1,000 km.



WARNING

Riding with the chain in poor condition or improperly adjusted can lead to an accident.

Inspect, adjust, and maintain the chain properly before each ride, according to this section.



If you find any of these problems with your sprocket, consult your **Hyosung** dealer.



CAUTION

The two sprockets should be inspected for wear when a new chain is installed and replace them if necessary.

⊙ INSPECTING THE DRIVE CHAIN

When inspecting the chain, look for the following:

- Loose pins
- Damaged rollers
- Dry or rusted links
- Missing X-O ring seals
- Kinked or binding links
- Excessive wear
- Improper chain adjustment

If you find something wrong with the drive chain condition or adjustment, correct the problem if you know how.

If necessary, consult your authorized **Hyosung** dealer.

Damage to the drive chain means that the sprockets may also be damaged.

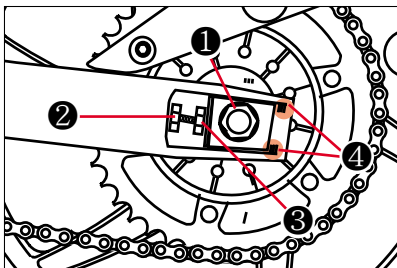
Inspect the sprockets for the following :

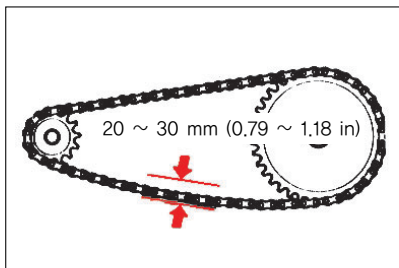
- Excessively worn teeth
- Broken or damaged teeth
- Loose sprocket mounting nuts

⊙ DRIVE CHAIN ADJUSTMENT

Adjust the drive chain slack to the proper specification. The chain may require more frequent adjustments than periodic maintenance schedule depending upon your riding conditions.

Chain adjust in the following way.





1. Place the motorcycle on the jack or block.

CAUTION

Improper jacking may cause damage to the frame or engine

2. Loosen the rear axle ①.
3. Loosen the lock nut ②, right and left.
4. Adjust the slack in the drive chain by chain adjuster ③, right and left, as turning toward the clockwise or counter-clockwise.
5. For alignment of the front wheel and rear wheel, there are reference mark ④ on the same position, right and left. Aligning and adjusting the slack in the drive chain to 20 ~ 30 mm (0.79 ~ 1.18 in), retighten the lock nut and rear axle securely and perform a final inspection.

CAUTION

The drive chain for this motorcycle is made of the special material. The chain should be replaced with a RK525XSO for

「GT650/PI/SIREI」.

Use of another chain may lead to premature chain failure.

CAUTION

The drive chain should be inspected every time before riding.

Excessive chain slack could cause the chain to come off the sprockets and result in accident or serious engine damage.

WARNING

Be careful not to touch the muffler when it is hot : a hot muffler can burn you.

DRIVE CHAIN CLEANING AND OILING

This drive chain has special "X-O rings".

Clean and oil the chain periodically, as follows :

1. Clean the chain with kerosene. If the chain tends to rust, the interval must be shortened. Kerosene is a petroleum product and will provide some lubrication as well as cleaning action.

WARNING

Kerosene can be hazardous. Kerosene is flammable. Children or pets may be harmed from contact with kerosene.

Keep flames and smoking materials away from kerosene. Keep children and pets away from kerosene.

If swallowed, do induce vomiting. Call a physician immediately.

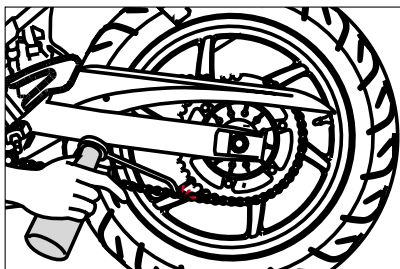
Dispose of used kerosene properly.

CAUTION

Cleaning the chain with gasoline or commercial cleaning solvents can damage “X-O rings” and ruin the chain.

Clean the drive chain with kerosene only.

2. After thoroughly washing the chain and allowing it to dry, oil the links with a **Hyosung** chain lube or an equivalent.



CAUTION

Some drive chain lubricants contain solvents and additives which could damage the “X-O rings” in your chain.

Use **Hyosung** chain lube or an equivalent that is specifically intended for use with “X-O rings” chains.

BRAKES

The 「 *GT650/P/S/REI* 」 utilize front and rear disk brakes.

Properly operating the brake systems are vital to safe riding. Be sure to perform the brake inspection requirements as scheduled.

The brakes should be inspected at periodic inspection by your authorized Hyosung dealer.

WARNING

Failure to properly inspect and maintain your motorcycle brake systems can be hazardous.

Improper maintenance of the brakes increases your chances of having an accident.

Be sure to inspect the brakes before each use of the motorcycle according to the **INSPECTION BEFORE RIDING** section. Always maintain your brakes according to the **MAINTENANCE SCHEDULE**.

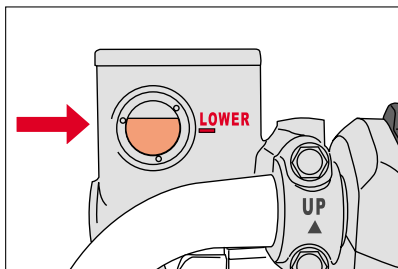


WARNING

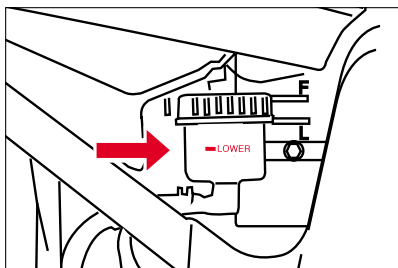
Operating the motorcycle in harsh condition can be hazardous if you do not inspect brake wear often.

Operating in mud, water, sand, or other extreme conditions can cause accelerated brake wear. This could lead to an accident.

If you operate your motorcycle under these conditions, the brakes must be inspected more often than recommended in the MAINTENANCE SCHEDULE.



[Front Brake]



[Rear Brake]

⊙ BRAKE FLUID

Be sure to check the brake fluid level in the master cylinder. If the level was found to be lower than the lower mark holding the motorcycle upright, inspect the brake pad's wear condition.

If the brake pad's wear condition is good, replenish with the proper brake fluid that meets Hyosung's requirements.

As the brake pads wear, the fluid level will drop to compensate for the new position of brake pads.

Replenishing the master cylinder is considered normal periodic maintenance.



WARNING

Brake fluid may be harmful if swallowed or if it comes in contact with skin or eyes. Contact your doctor immediately if brake fluid is swallowed and induce vomiting. If brake fluid gets into the eyes or in contact with the skin, flush thoroughly with plenty of water.



CAUTION

This motorcycle uses glycol-based brake fluid.

Do not use or mix different types of brake fluid, otherwise serious damage will result in the brake system.

Use Only DOT4 brake fluid.

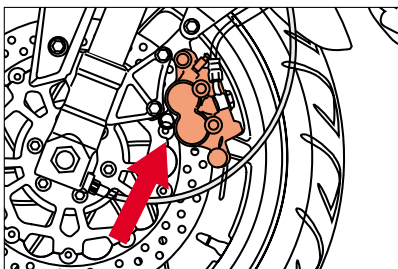
Do not spill any brake fluid on painted or plastic surfaces as it will damage the surface severely.

Never use any brake fluid that has been stored in a used or unsealed container. Never reuse brake fluid left over from the last servicing and stored for long period as it absorbs moisture from the air.

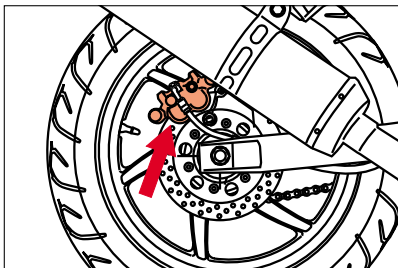
⊙ BRAKE PADS

Inspect the front and rear brake pads to determine whether or not the friction pads are worn down to the grooved limit line. If a pad is worn to the grooved limit line it must be replaced with a new one by your authorized Hyosung dealer or qualified service mechanic.

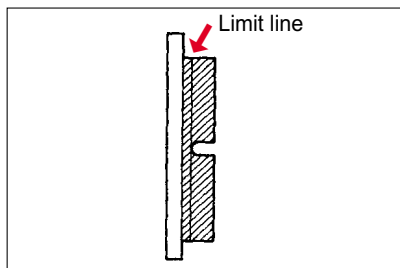
The rate at which brake pads will wear depends on motorcycle usage, riding style and road surface condition.



[Front Brake]



[Rear Brake]



Inspect every day in the following point at the brake system.

- ① Brake fluid leakage of the front and rear brake system.
- ② Leak or damage of the brake hose.
- ③ Operating of the brake lever and pedal.
- ④ Wear of the front and rear brake pads.



CAUTION

The front and rear brake system requires the brake hose or the brake fluid to be replaced according to periodic inspection chart by your authorized Hyosung dealer for safety as they operate at high pressure.



WARNING

Riding with worn brake pads will reduce braking performance and will increase your chance of having accident. Inspect brake pad wear before each use. Ask your Hyosung dealer or qualified mechanic to replace brake pads if any pad is worn to the limit.



WARNING

If brake pads are allowed to wear down to the metal substrate, metal-to-metal contact with the brake disk would lead to noise and the brake caliper sparking ; this would result in loss of braking and brake disk damage, causing a dangerous riding condition.



CAUTION

After replaced the front or rear brake pads, squeeze/depress and release several times the brake lever/pedal so that it is setting at the original place. Then, check that the brakes are operating correctly.



WARNING

Replacing only one of the two brake pads can be hazardous.

Replacing only one brake pads can result in uneven braking action.

Replace both pads together.

⊙ BRAKE DISK INSPECTION

Check the brake disk for damage or cracks.

⊙ FRONT BRAKE FLUID SUPPLY

1. Place the motorcycle on a level surface and keep the handlebars straight.
2. Clean the front brake fluid reservoir around not to allow dust to get inside of it.
3. Loosen the screw and open the cap.
4. Replenish with brake fluid to the upper line.

N O T E

The recommended brake fluid : DOT4



CAUTION

- Don't replenish with brake fluid over the limit line. It will leak out of the brake fluid reservoir.
- Be careful not to allow dusts or water to go inside when it is replenished.
- Don't use the unrecommended brake fluid.
- Brake fluid can damage severely the plastics or rubbers. When it is spilt on the parts, wipe them up immediately.

5. Fasten the cap.

⊙ REAR BRAKE FLUID SUPPLY

1. Place the motorcycle on a level surface and keep the handlebars straight.
2. Clean the rear brake fluid reservoir around not to allow dust to get inside of it.
3. Turn the cap to the counter - clockwise.
4. Replenish with brake fluid to the upper line.

N O T E

The recommended brake fluid : DOT4

5. Fasten the cap.

⊙ FRONT BRAKE LAMP SWITCH

The front brake lamp switch is located the inside of the front brake lever. Loosen the switch fitting screws and adjust the timing by moving the switch body forward or backward.

⊙ REAL BRAKE LAMP SWITCH

The rear brake lamp switch is located at right-side of the engine.

Move the switch up or down to adjust it until the switch operates and turns on the brake lamp after the brake pedal begins to be depressed.

TIRE

Inspect the tire pressure and the tire thread depth periodically.

Inspect frequently the tire pressure for the safety and the tire life.

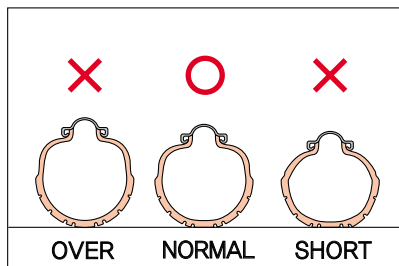
WARNING

Failure to follow these warnings may result in an accident due to tire failure. The tires on your motorcycle form the crucial link between your motorcycle and the road.

Follow these instructions ;

- Check tire condition and pressure, and adjust pressure before each ride.
- Avoid overloading your motorcycle.
- Replace a tire when worn to the specified limit, or if you find damage such as cuts or cracks.
- Always use the size and type of tires specified in this owner's manual.

TIRE PRESSURE (COLD INFLATION)	NORMAL RIDING	
	SOLO RIDING	DUAL RIDING
FRONT	2.25 kgf/cm ² 221 kpa 33.0 psi	2.25 kgf/cm ² 221 kpa 33.0 psi
REAR	2.50 kgf/cm ² 245 kpa 36.0 psi	2.50 kgf/cm ² 245 kpa 36.0 psi



CAUTION

If there are some problem with the tire pressure or cracks and cuts, it will decrease the riding stability and lead to flat tire.

⊙ TIRE PRESSURE

Insufficient air pressure in the tires not only hasten tire wear but also seriously affects the stability of the motorcycle.

Under-inflated tires make smooth cornering difficult and over-inflated tires decrease the amount of tire in contact with the ground which can lead to skids and loss of control. Be sure that the tire pressure is within the specified limits at all times.

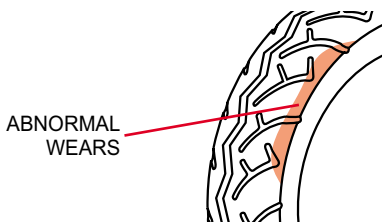
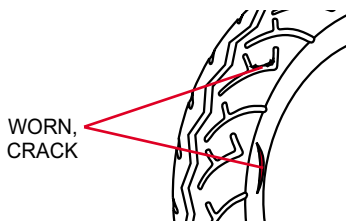
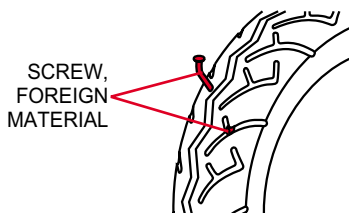
Tire pressure should only be adjusted when the tire is cold.

If you see the problem with the tire, adjust the pressure with the pressure gauge.

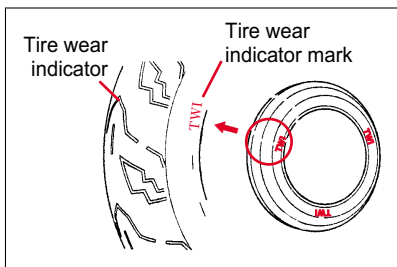
⊙ CRACKS AND CUTS

Check if

- 1) there are visible cracks and cuts.
- 2) there are abnormal wears.



⊙ TIRE TREAD CONDITION



Operating the motorcycle with excessively worn tire will decrease riding stability and can lead to loss of control.

Inspect storage of tire thread's depth by the 「tire wear indicator」.

Replace the front and rear tires at once when appear the 「tire wear indicator」.



CAUTION

The standard tire on

「GT650/PI/SIREI」 are
120/60 - ZR 17 55W for front, and
160/60 - ZR 17 69W for rear.

The use of a tire other than standard
may cause trouble.

It is highly recommended to use the
standard tire supplied by Hyosung.

⊙ REAR AXLE NUT

Inspect the rear axle shaft and jointing nut
for loosening.

⊙ TIRE REPLACEMENT

■ FRONT TIRE REPLACEMENT

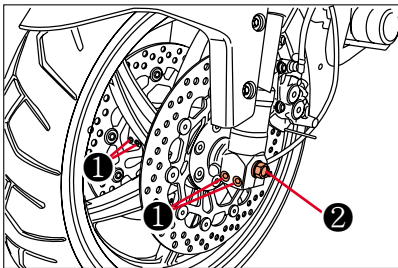
1. Place the motorcycle on the jack or block vertically.



CAUTION

Improper jacking may cause damage to the frame or engine.

2. Loosen the four front axle pinch bolts ① (right and left).
3. Loosen the front axle nut ②.



4. Carefully position a jack or block under engine and raise until the front wheel is slightly off the ground.
5. Draw out the front axle .
6. Slide the front wheel forward.
7. To reinstall the front wheel assembly, reverse the sequence as described.

■ REAR TIRE REPLACEMENT

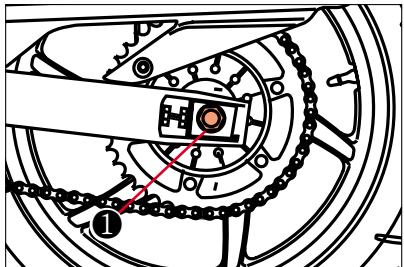
1. Place the motorcycle on the jack or block vertically.



CAUTION

Improper jacking may cause damage to the frame or engine.

2. Loosen the rear axle nut .



3. Carefully position a jack or block under engine and raise until the rear wheel is slightly off the ground.



WARNING

A hot muffler can burn you.

The muffler will be hot enough to burn you for some time after stopping the engine.

Wait until the muffler cools to avoid burns.

4. Draw out the rear axle ① .
5. Pull the rear wheel assembly rear ward.
6. To reinstall the rear wheel assembly, reverse the complete sequence listed.

BULBS



WARNING

Keep fuel and other flammable substances away from electric components.



CAUTION

Before changing a bulb, set the ignition switch to position "OFF" and allow a few minutes for the bulb to cool down.

Wear clean gloves or use a clean, dry cloth to handle the new bulb.

Do not put your fingerprints on the bulb, as this may lead to overheating and failure.

If you have handled the bulb with bare hands, clean it with alcohol to avoid any damage.

DO NOT PULL ON THE WIRES.

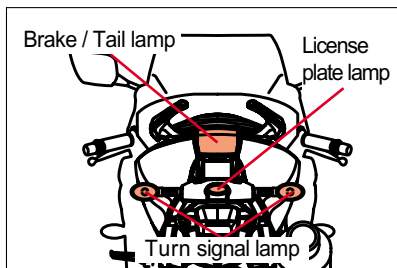
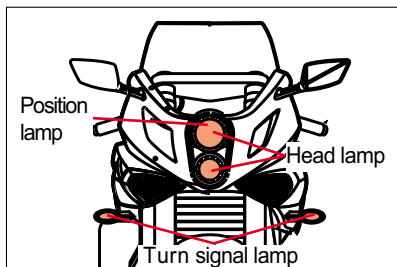
NOTE

Before changing a bulb, check the fuses.

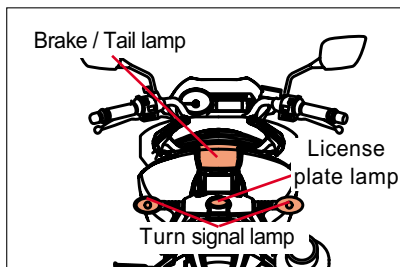
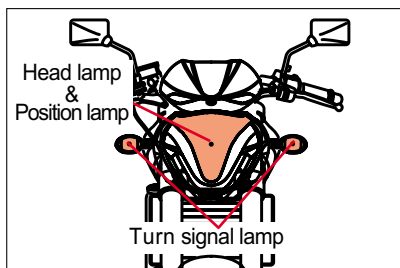
⊙ INSPECTION OF LAMPS

- Check if the head lamp, position lamp, meter lamp, tail lamp and license plate lamp work well when the ignition switch was turned to the "ON" position.
- Check if the brake lamp work well when the front brak lever or rear brake pedal was operated.
- Check if the turn signal lamp work well when the turn signal switch was operated.
- Check if the head lamp, tail lamp, turn signal lamp and brake lamp are dusty or damaged.

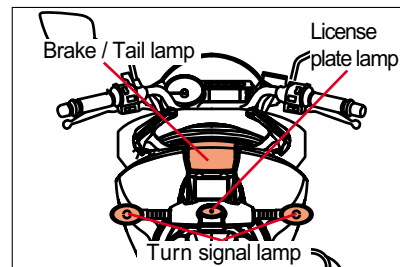
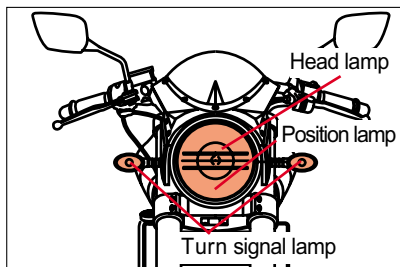
■ *GT650SEI & GT650REI*



■ *GT650PEI*



■ *GT650EI*



⚠ CAUTION

The head lamp, position lamp, meter lamp, tail lamp and license plate lamp on this motorcycle always comes on when the ignition switch is turned to the "ON" position .

⊙ **REPLACEMENT OF THE LAMP**

Requirement electric power of the lamp shown in the following chart.

When replace the damaged lamp, always use the equal capacity.

The use of a lamp other than rules may cause to excessive at the electric system or to damage the lamp.

■ *GT650EI & GT650REI*

NAMES		CAPACITY
Head lamp	HI	12V - H1 : 55W × 1
	LO	12V - H3 : 55W × 1
	Position	12V - W5W × 1
Brake / Tail lamp		LED type
Turn signal lamp		12V - RY10W × 4
License plate lamp		12V - W5W × 1

■ *GT650PEI*

NAMES		CAPACITY
Head lamp	HI/LO	12V - H4 : 60/55W × 1
	Position	12V - W5W × 2
Brake / Tail lamp		LED type
Turn signal lamp		12V - RY10W × 4
License plate lamp		12V - W5W × 1

■ *GT650Ei*

NAMES		CAPACITY
Head lamp	HI/LO	12V - H4 : 60/55W × 1
	Position	12V - W5W × 1
Brake / Tail lamp		LED type
Turn signal lamp		12V - RY10W × 4
License plate lamp		12V - W5W × 1

※ LED : Light Emitting Diode



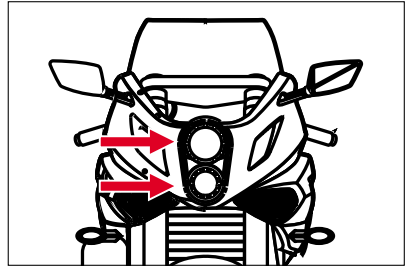
CAUTION

Using a lamp bulb with the wrong wattage rating can cause electrical system damage or shorten bulb life.

Always use the specified lamp bulb.

◎ HEAD LAMP'S BULB REPLACEMENT

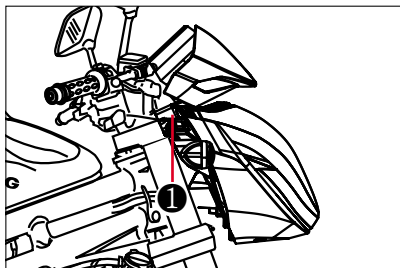
(*GT650SEi* & *GT650REi*)



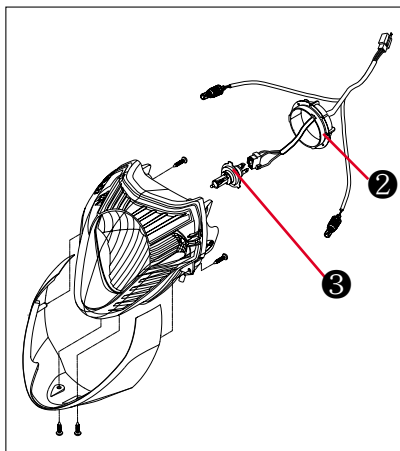
We suggest that you have 「*GT650SEi*」 & 「*GT650REi*」's head lamp bulb replaced by your authorized **Hyosung** dealer or a qualified service mechanic.

⊙ HEAD LAMP'S BULB REPLACEMENT
(*GT50PEI*)

1. Remove the two bolts ① (right and left) and the head lamp assembly.



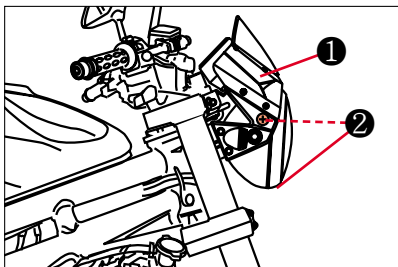
2. Remove the dust cover ② by turning to the counter-clockwise.
3. Remove the bulb socket spring by pressing it.
4. After removing the bulb ③ at the socket, replace the new bulb.



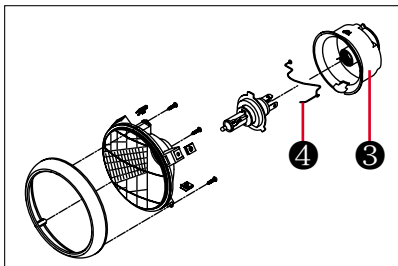
6. To reinstall the head lamp, reverse the above sequence.

⊙ HEAD LAMP'S BULB REPLACEMENT
(*GT50EI*)

1. Remove the head lamp cowling ①.
2. Remove the three screw ② (right, left and bottom) and the head lamp assembly.



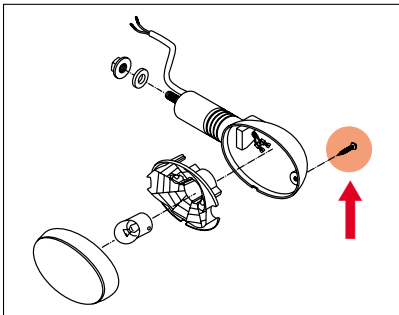
3. Disconnect the head lamp coupler.
4. Remove the dust cover ③ and socket spring ④.
5. After removing the bulb at the socket, replace the new bulb.



6. To reinstall the head lamp, reverse the above sequence.

⊙ TURN SIGNAL LAMP'S BULB REPLACEMENT

1. Remove the lens by removing the screw.
2. While pushing the bulb, turn it to the counter-clockwise and pull it out.



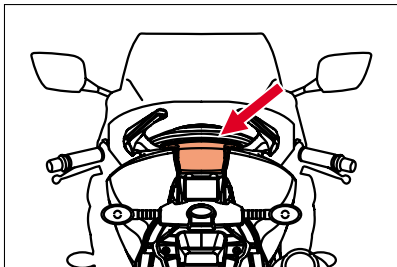
3. After stick in the new bulb, turn it to the clockwise.
4. To reinstall the lens, reverse the above sequence.



CAUTION

Overtightening the screws may cause the lens to crack.

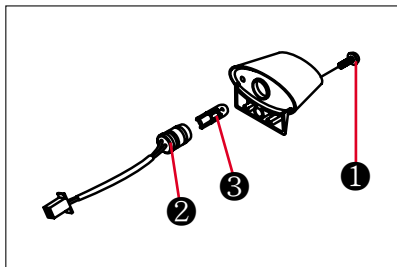
⊙ BRAKE / TAIL LAMP'S BULB REPLACEMENT



The 『GT650/P/S/REI』's brake / tail lamp are LED (Light Emitting Diode) type.

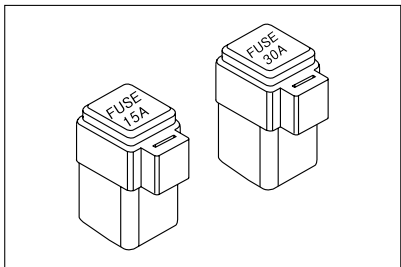
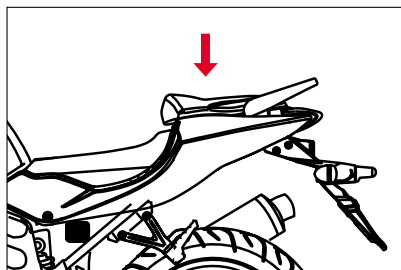
If any abnormal condition are found, replace the brake / tail lamp assembly.

⊙ LICENSE PLATE LAMP'S BULB REPLACEMENT



1. Remove the lamp housing by unscrewing the screw ①.
2. Pull out the socket ② from the lamp housing.
3. Pull out the bulb ③ at the socket ②.
4. Replace the new bulb.
5. To reinstall the license plate lamp, reverse the above sequence.

● FUSE



The fuse boxes are located under the rear seat. If the engine suddenly stops while running or any electrical system fails to operate then the fuses must be checked.

In case the fuses blow, there is a 30 A for main and 15 A for head lamp spare fuse.

- 30 A main fuse protects all electrical circuits.
- 15 A head lamp fuse protects the head lamp and high beam indicator lamp.

⚠ CAUTION

Never use other than specified 30 A or 15 A fuse.

Installing a fuse of incorrect rating may seriously damage the electrical system. You should consult your Hyosung dealer or a qualified service mechanic immediately.

TROUBLESHOOTING

This troubleshooting guide is provided to help you find the cause of some common complaints.

⚠ CAUTION

Failure to troubleshoot a problem correctly can damage your motorcycle.

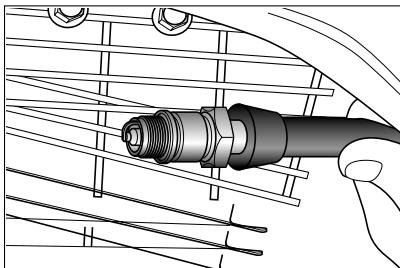
Improper repairs or adjustments may damage the motorcycle instead of fixing it. Such damage may not be covered under warranty.

If you are not sure about the proper action, consult your Hyosung dealer about the problem.

★ WHEN THE ENGINE REFUSES TO START

⊙ IGNITION SYSTEM CHECK

1. Remove the spark plug and reattach it to the spark plug lead.



2. Put the engine stop switch in the “○” position and the ignition switch in the “ON” position. Holding the spark plug base firmly against the engine, the transmission in neutral, the side stand up, the clutch disengaged and push the electric starter switch.

If the ignition system is operating properly, a blue spark should jump across the spark plug gap.

N O T E

Push the starter switch after about three seconds whenever the ignition switch is set to “ON” position with engine stopped as a test of the electric injection system operation.

If push the starter switch before about three seconds, the engine will be started badly and the spark plugs get wetted.

3. If there is no spark, clean the spark plug. Replace it if necessary. Retry the above procedure with the cleaned spark plug or new one.

4. If there is still no spark, consult your **Hyosung** dealer for repairs.

⚠ WARNING

Performing the spark test improperly can be hazardous.

You could get a high voltage electrical shock or an explosion if you are not familiar with this procedure. Do not perform this check if you are not familiar with the procedure.

Keep the spark plug away from the spark plug hole during this test. Do not test if you have a heart condition or wear a pacemaker.

★ ENGINE STALLING

1. Check the fuel supply in the fuel tank.
2. Check the ignition system for intermittent spark.
3. Check the idle speed.

⚠ CAUTION

When occur any trouble, the best way is to consult your Hyosung dealer for repairs.

TRANSPORT



WARNING

Before transporting the motorcycle, it is necessary to empty the fuel tank completely, making sure that it is completely dry.

During transport, the motorcycle must be firmly secured in an upright position to avoid fuel and oil leaks.

★ DRAINING THE FUEL TANK



WARNING

Keep the fuel tank away from fires.

Allow some time for the engine and muffler to cool down completely.

Fuel vapours are harmful to human health.

Ensure the area is well ventilated before proceeding.

Do not inhale fuel vapours.

Do not smoke, nor use naked flames.

- Place the motorcycle on firm and level ground.
- Stop the engine and wait until it has cooled down.
- Prepare a container large enough to hold the fuel in the tank and place it on the floor on the left side of the motorcycle.
- Remove the fuel tank cap.
- Drain fuel using a manual tank or similar system.
Do not damage the fuel tank assembly (fuel level gauge accommodated inside the tank).



WARNING

Refit the fuel tank cap after draining all fuel.

CLEANING PROCEDURE

A thorough cleaning of your motorcycle is a necessary part of maintenance and will help keep your motorcycle looking and performing its best. Proper cleaning can also extend the life of your motorcycle.

It is important to clean and inspect your motorcycle after every ride if it is used in mud, brush, grass, water, salt water, or very dusty conditions.

The build-up of mud, brush, grass, etc, especially on the engine and exhaust system, can reduce engine cooling, conceal damage, or increase wear of certain parts. It is important to remove all debris during cleaning.



CAUTION

High pressure washers can damage your motorcycle (especially the radiator pin).

High pressure washers such as those found at coin-operated car washes have enough pressure to damage the parts of your motorcycle. It may cause rust, corrosion and increase wear.

Do not use high pressure washers to clean your motorcycle.

★ WASHING YOUR motorcycle

With some care, your motorcycle can be washed in a similar manner to washing an automobile.

NOTE

Avoid spraying or allowing water to flow over the following places :

- Ignition switch
- Spark plugs
- Fuel tank cap
- Electric fuel injection system
- Brake master cylinders
- Radiator fins
- Snorkel air intake for air cleaner



CAUTION

Do not use parts cleaner to throttle body and electric fuel injection sensors.

Use a garden hose at low pressure to remove the majority of dirt or other debris. Wash your motorcycle by hand with a mild soap or detergent and water. Try to thoroughly remove all dirt and debris without excessive water pressure. Cloth rags, washing mitts or cleaning brushes can be used, be careful with brushes as they may scratch plastic or painted surfaces. Rinse the motorcycle thoroughly with clean water. Dry all areas using a chamois or soft absorbent cloth.

★ WINDSHIELD CLEANING

Clean the windshield with a soft cloth and warm water with a mild detergent.

If scratched, polish with commercially available plastic polish.

Replace the windshield if it becomes scratched or discolored so as to obstruct view.

When replacing the windshield, use a Hyosung replacement windshield.



CAUTION

Cleaning with any alkaline or strong acid cleaner, gasoline, brake fluid, or any other solvent will damage the windshield.

Clean only with a soft cloth and warm water with a mild detergent.

★ WAXING THE MOTORCYCLE

After washing the motorcycle, waxing and polishing are recommended to further protect and beautify the paint.

- Only use waxes and polishes of good quality.
- When using waxes and polishes, observe the precautions specified by the manufacturers.

★ INSPECTION AFTER CLEANING

Remove the rags or wrapping from the exhaust pipe. For extended life of your motorcycle, lubricate according to "LUBRICATION POINTS" section.



WARNING

Operating the motorcycle with wet brakes can be hazardous.

Wet brakes may not provide as much stopping power as dry brakes. This could lead to an accident.

Test your brakes after washing motorcycle, riding at slow speed. If necessary, apply brakes several times to let friction dry out the pads.

Follow the procedures in the "INSPECTION BEFORE RIDING" section to check your motorcycle for any problems that may have arisen during your last ride.

STORAGE PROCEDURE

If you don't plan on using your motorcycle for a long time, it will need special servicing requiring appropriate materials, equipment and skill. For this reason, Hyosung recommends that you trust this maintenance work to your dealer. If you wish to service the machine for storage yourself, follow the general guidelines below :

★ MOTORCYCLE

Clean the entire motorcycle.

Place the motorcycle on a firm, flat surface where it will not fall over.

Turn the handlebars all the way to the left and lock the steering, and remove the ignition key.

★ FUEL

Fill the fuel tank to the top with fuel.

★ BATTERY

1. Remove the battery from the motorcycle.

NOTE

Be sure to remove the negative terminal first, then remove the positive terminal.

2. Clean the outside of the battery with mild detergent and remove any corrosion from the terminals and wiring harness connections.
3. Store the battery in a room above freezing.

★ TIRES

Inflate the tires to the normal pressure.

★ EXTERNAL

- Spray all vinyl and rubber parts with rubber protectant.
- Spray the unpainted surfaces with rust preventative.
- Coat the painted surfaces with car wax.

★ MAINTENANCE DURING STORAGE

Once a month, recharge the battery.

The 「GT650/P/S/REI」's battery standard charging time is 1.2 A × 10 hours.

★ PROCEDURE FOR RETURNING TO SERVICE

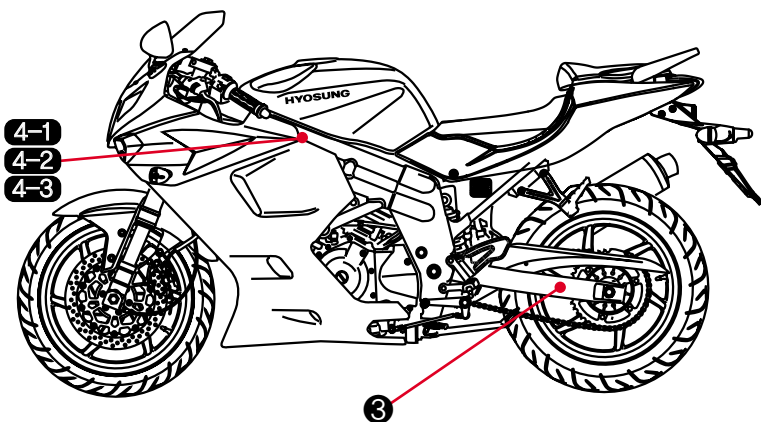
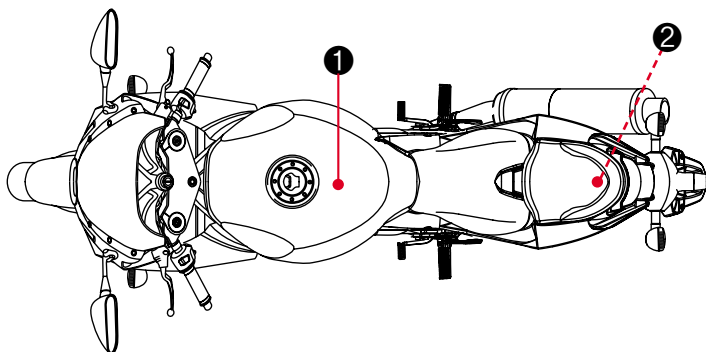
1. Clean the entire motorcycle.
2. Drain the engine oil, and replace the engine oil filter & engine oil with a new one.
3. Reinstall the battery.

NOTE

Be sure connect the positive terminal first, then connect the negative terminal.

4. Adjust the pressure of tires as described in the TIRE section.
5. Remove the spark plugs and push several times the electric starter switch to start the engine.
Reinstall the spark plugs.
6. Lubricate all places as instructed in this manual.
7. Perform the INSPECTION BEFORE RIDING as listed in this manual.

LABEL



NOTE :

"-----" = means the invisible parts.

WARNING

- BE FULLY AWARE OF THE OWNER'S MANUAL BEFORE OPERATING AND RIDING.
 - MAKE SURE TO WEAR A HELMET.
 - OBSERVE THE RESTRICTED SPEED.
 - DO NOT BE TOUCHED ON MUFFLER BECAUSE IT IS HOT.
 - DO NOT MAKE ILLEGAL MODIFICATION FOR THE SAFE RIDING.
 - TAKE THE INSPECTION AND THE MAINTENANCE ACCORDING TO THE REGULAR CHECKLIST OF THE OWNER'S MANUAL.
- THE CHECKLIST BEFORE RIDING
 - DASHBOARD, HORN, LAMP, OIL, BRAKE, TIRE (AIR PRESSURE, DAMAGE, ABNORMAL WEAR AND ETC.)
- USE THE HYOSUNG GENUINE OIL.

68319H05350-PL

1

CAUTION

- DO NOT LOAD OVER MAXIMUM 2kg IN THE TRUNK.
- DO NOT PUT SOMETHING AFFECTED EASILY BY THE HEAT BECAUSE THE INSIDE OF TRUNK MAY BE HEATED.
- DO NOT PUT VALUABLES OR FRAGILES IN THE TRUNK.
- MAKE SURE THE SEAT WERE LOCKED. IN CASE OF RIDING WITH UN-LOCKED, IT CAN CAUSE AN ABNORMAL RIDING OR DANGEROUS IN AN EMERGENCY.
- WATER CAN COME INTO THE TRUNK ON WASHING AND ALSO BE CAREFUL WHEN SOMETHING IMPORTANT IS PUT IN THE TRUNK. DO NOT LAY CLOTH PIECE IN THE TRUNK UNDER THE SEAT. IT CAN BE A CAUSE OF UNEXPECTED ACCIDENT.

68350HMB150-PL

2

⚠ WARNING

- AN IMPROPER TIRE PRESSURE CAN CAUSE DIFFICULTIES IN HANDLING, SERIOUS INJURIES OR DEATH.
- BEFORE RIDING, INSPECT THE TIRE PRESSURE, DAMAGE, ABNORMAL WEAR AND ETC. ACCORDING TO THE "INSPECTION BEFORE RIDING"
- ALWAYS MAINTAIN A PROPER TIRE PRESSURE AS SHOWN IN THE BELOW.

	FRONT	REAR
SOLO RIDING	29psi (2.00kg/cm ²)	32psi (2.25kg/cm ²)
DUAL RIDING	29psi (2.00kg/cm ²)	36psi (2.50kg/cm ²)
TIRE SIZE	110/70-17 54H	150/70-17 69H

88820HM8150-PL

3

S&T MOTORS CO.,LTD.

e9*2002/24*0002

KM4 MP58A

90dB(A) – 4625 min⁻¹

4-1

(*GT650Ei* & *GT650PEi*)

S&T MOTORS CO.,LTD.

e9*2002/24*0002

KM4MP58B

90dB(A) – 4625 min⁻¹

4-2

(*GT650SEI*)

S&T MOTORS CO.,LTD.

e9*2002/24*0002

KM4MP58C

90dB(A) – 4625 min⁻¹

4-3

(*GT650REI*)

SPECIFICATIONS

★ DIMENSIONS AND DRY MASS

	<i>GT650EI</i>	<i>GT650PEI</i>
Overall length	2,090 mm (82.3 in)	←
Overall width	785 mm (30.9 in)	←
Overall height	1,125 mm (44.3 in)	1,095 mm (43.1 in)
Wheelbase	1,435 mm (56.5 in)	←
Ground clearance	175 mm (6.9 in)	←
Mass	210 kg (463 lbs)	←

★ ENGINE

	<i>GT650EI</i>	<i>GT650PEI</i>
Type	Four-stroke, DOHC, Liquid-cooled	←
Number of cylinder	V-2 cylinder	←
Bore	81.5 mm (3.21 in)	←
Stroke	62.0 mm (2.44 in)	←
Piston displacement	647 cm ³ (39.5 in ³)	←
Fuel system	Electric fuel injection	←
Starter system	ELECTRIC STARTER	←

★ TRANSMISSION

	<i>GT650EI</i>	<i>GT650PEI</i>
Clutch	Wet multi-plate type	←
Reduction ratio	2.93	←
Drive chain	RK525XSO, 108 Links	←
Transmission	1st : 2.46	←
	2nd : 1.60	←
	3rd : 1.32	←
	4th : 1.13	←
	5th : 0.96	←
	6th : 0.85	←

★ CHASSIS

	<i>GT650EI</i>	<i>GT650PEI</i>
Front suspension	Telescopic type	←
Rear suspension	Swing arm type	←
Caster	25.5°	←
Trail	85 mm (3.35 in)	←
Steering angle	30° (right & left)	←
Front tire size	120/60 - ZR 17 55W	←
Rear tire size	160/60 - ZR 17 69W	←
Front brake	Double disk	←
Rear brake	Disk	←

★ ELECTRICAL

	<i>GT650EI</i>	<i>GT650PEI</i>
Ignition type	ECU	←
Ignition timing	5° B.T.D.C. at 2,000 rpm	←
Spark plug	CR8E	←
Battery	12V 12Ah (MF)	←
Fuse	Main : 30A, Head lamp : 15A	←
Head lamp	[HI/LO] : 12V - H4 : 60/55W×1 [Position] : 12V - W5W×1	[HI/LO] : 12V - H4 : 60/55W×1 [Position] : 12V - W5W×2
License plate lamp	12V - W5W×1	←
Turn signal lamp	12V - RY10W×4	←
Brake / Tail lamp	LED type	←

★ CAPACITIES

	<i>GT650EI</i>	<i>GT650PEI</i>
Fuel tank	17.0 ℓ	←
Engine oil	3,000 ml (Oil change)	←
	3,200 ml (Oil and filter change)	←
	3,400 ml (Engine overhaul)	←

★ DIMENSIONS AND DRY MASS

	<i>GT650SEI</i>	<i>GT650REI</i>
Overall length	2,090 mm (82.3 in)	←
Overall width	785 mm (30.9 in)	700 mm (27.6 in)
Overall height	1,135 mm (44.7 in)	←
Wheelbase	1,435 mm (56.5 in)	←
Ground clearance	175 mm (6.9 in)	165 mm (6.5 in)
Mass	210 kg (463 lbs)	215 kg (474 lbs)

★ ENGINE

	<i>GT650SEI</i>	<i>GT650REI</i>
Type	Four-stroke, DOHC, Liquid-cooled	←
Number of cylinder	V-2 cylinder	←
Bore	81.5 mm (3.21 in)	←
Stroke	62.0 mm (2.44 in)	←
Piston displacement	647 cm ³ (39.5 in ³)	←
Fuel system	Electric fuel injection	←
Starter system	ELECTRIC STARTER	←

★ TRANSMISSION

	<i>GT650SEI</i>	<i>GT650REI</i>
Clutch	Wet multi-plate type	←
Reduction ratio	2.93	←
Drive chain	RK525XSO, 108 Links	←
Transmission	1st : 2.46	←
	2nd : 1.60	←
	3rd : 1.32	←
	4th : 1.13	←
	5th : 0.96	←
	6th : 0.85	←

★ CHASSIS

	<i>GT650SEI</i>	<i>GT650REI</i>
Front suspension	Telescopic type	←
Rear suspension	Swing arm type	←
Caster	25.5°	←
Trail	74 mm (2.91 in)	←
Steering angle	27° (right & left)	←
Front tire size	120/60 - ZR 17 55W	←
Rear tire size	160/60 - ZR 17 69W	←
Front brake	Double disk	←
Rear brake	Disk	←

★ ELECTRICAL

	<i>GT650SEI</i>	<i>GT650REI</i>
Ignition type	ECU	←
Ignition timing	5° B.T.D.C. at 2,000 rpm	←
Spark plug	CR8E	←
Battery	12V 12Ah (MF)	←
Fuse	Main : 30A, Head lamp : 15A	←
Head lamp	[HI] : 12V - H4 : 60W×1 [LO] : 12V - H4 : 55W×1 [Position] : 12V - W5W×1	←
License plate lamp	12V - W5W×1	←
Turn signal lamp	12V - RY10W×4	←
Brake / Tail lamp	LED type	←

★ CAPACITIES

	<i>GT650SEI</i>	<i>GT650REI</i>
Fuel tank	17.0 ℓ	←
Engine oil	3,000 mL (Oil change)	←
	3,200 mL (Oil and filter change)	←
	3,400 mL (Engine overhaul)	←

Prepared by

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