

**This manual should be considered a permanent part of the vehicle and should remain with the vehicle 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 vehicle.**

## FOREWORD

This owner's manual is an essential part of your ATV.

Please read it carefully.

It contains important information on safety, operation and maintenance.

Failure to follow the warning contained in this manual can result in INJURY or DEATH.

It is especially important that this manual remain with the ATV at the time of resale. The next owner will need this information also.

Store the owner's manual in the tray under the seat.

Do not allow anyone under age 16 to ride this ATV.

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 ATV.

Hyosung Motors & Machinery INC. believes in conservation and protection of Earth's natural resources. To that end, we encourage every vehicle owner to recycle, trade in, or properly dispose of, as appropriate, used motor oil, coolant, other fluids, batteries and tires.

The proper care and maintenance that your ATV requires is outline in this manual.

By following these instructions explicitly you will ensure a long trouble-free operating life for your ATV. This ATV also conforms to the U.S. Environmental Protection Agency (EPA) and California Air Resources Board (CARB) emission regulations which apply to new ATVs. The proper adjustment of engine components is necessary for this ATV to comply with the EPA and CARB

regulations. Therefore, please follow the maintenance instructions closely to ensure emission compliance. Your authorized Hyosung dealer has experienced technicians that are trained to provide your machine with the best possible service with the right tools and equipment.

## IMPORTANT

### 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 or bystanders may be involved.**

**Disregarding this information could result in personal injury.**



### CAUTION

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

### N O T E

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



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## **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 carburetor may cause permanent damage to the catalyst and to the noise control system.

## NOTICE TO OWNER'S

### **WARNING**

**AN ATV IS NOT A TOY AND CAN BE HAZARDOUS TO OPERATE.**

An ATV handles differently from other vehicles including motorcycles and cars. A collision or rollover can occur quickly, even during routine maneuvers such as turning and driving on hills or over obstacles, if you fail to take proper precautions.

### **WARNING**

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

- Read this manual and all labels carefully and follow the operating procedures described.
- Never operate an ATV without proper instruction. Take a training course. Beginners should receive training from a licensed instructor.
- Always follow this age recommendation : A child under 16 years old should never operate an ATV with engine size greater than 90 cc.

### **WARNING**

- Before first use of the ATV, read this owner's manual carefully to become familiar with the ATV's features, and safety and maintenance requirements. Review all instructions, requirements and warnings.  
Keep the owner's manual in the storage compartment located under the seat.
- Before the rider's first use of the ATV, 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 vehicle.
- For first use of the ATV, 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 ATV.
- Only permit skilled, experienced riders to use your ATV. Because this is a performance ATV, it should only be used by operators who have already practiced and become skilled at proper ATV riding technique.
- Permit use only by dual rider.  
This ATV is designed for use only by dual rider.
- Always avoid operating an 'OFF-ROAD type ATV' on paved surfaces, including sidewalks, paths, parking lots, drive ways, and streets.  
Never operate an 'OFF-ROAD type ATV' on any public street, road or highway, even a dirt or gravel one.
- 'ON-ROAD type ATV' is designed and manufactured for ON-ROAD use only, and handling maneuvers are more difficult to perform on

rough surfaces. Please check your local riding laws and regulations before operating 'ON-ROAD type ATV'.

- **Never operate an ATV without wearing an approved motorcycle helmet that fits properly.**  
You should also wear eye protection (goggles or face shield), gloves, boots, long sleeved shirt or jacket, and long pants.
- **Never consume alcohol or drugs before or while operating this ATV.**
- **Never operate at excessive speeds.**  
Always go at a speed that is proper for the terrain, visibility and operating conditions, your skill and experience.
- **Never attempt stunts.**
- **Always inspect your ATV each time you use it to make sure it is in safe operating condition.**  
Always follow the inspection and maintenance procedures and schedules described in this manual.
- **Always keep both hands on the handlebars and both feet on the footrests of the ATV during operation.**
- **Always go slowly and be extra careful when operating on unfamiliar terrain. Always be alert to changing terrain conditions when operating the ATV.**
- **Never operate on excessively rough, slippery or loose terrain until you have learned and practiced the skills necessary to control the ATV on such terrain. Always be especially cautious on these kinds of terrain.**
- **Always follow proper procedures**

for turning as described in this manual. Practice turning at low speeds before attempting to turn at faster speeds. Do not turn at excessive speed.

- **Never operate the ATV on hills too steep for the ATV or for your abilities. Practice on smaller hills before attempting larger hills.**
- **Always follow proper procedures for climbing hills as described in this manual. Check the terrain carefully before you start up any hill. Never climb hills with excessively slippery or loose surfaces. Shift your weight forward. Never open the throttle suddenly or make sudden gear changes. Never go over the top of any hill at high speed.**
- **Always follow proper procedures for going down hills and for braking on hills as described in this manual. Check the terrain carefully before you start down any hill. Shift your weight backward. Never go down a hill at high speed. Avoid going down a hill at an angle that would cause the vehicle to lean sharply to one side. Go straight down the hill where possible.**
- **Always follow proper procedures for crossing the side of a hill as described in this manual. Avoid hills with excessively slippery or loose surfaces. Shift your weight to the uphill side of the ATV. Never attempt to turn the ATV around on any hill until you have mastered the turning technique described in this manual on level ground. Avoid crossing the side of a steep hill if possible.**

- Always use proper procedures if you stall or roll backwards when climbing a hill. To avoid stalling, use the proper gear and maintain a steady speed when climbing a hill. If you stall or roll backwards, follow the special procedure for braking described in this manual.  
Dismount on the uphill side or to a side if pointed straight uphill. Turn the ATV around and remount, following the procedure described in this manual.
- Always check for obstacles before operating in a new area. Never attempt to operate over large obstacles, such as large rocks or fallen trees. Always follow proper procedures when operating over obstacles as described in this manual.
- Always be careful when skidding or sliding. Learn to safely control skidding or sliding by practicing at low speeds and on level, smooth terrain. On extremely slippery surfaces, such as ice, go slowly and be very cautious in order to reduce the chance of skidding or sliding out of control.
- Never operate an ATV in fast flowing water or in water deeper than that specified in this manual. Remember that wet brakes may have reduced stopping ability. Test your brakes after leaving water. If necessary, apply them several times to let friction dry out the pads.
- Always use tires of the size and type specified in this manual. Always maintain proper tire pressure as described in this

manual.

- Do not make any modifications to this ATV. Modifications may make the ATV unsafe or illegal unsafe or illegal in your state.
- Never exceed the stated load capacity for an ATV. Cargo should be properly distributed and securely attached. Reduce speed and follow instructions in this manual for heavy load. Allow greater distance for braking.
- Make sure the combined weight of the rider, protective gear and any accessories or cargo does not exceed the 150 kg (330.7 lbs) weight limit. Exceeding this weight limit may result in injury caused by damage to the vehicle or altered handling characteristics.
- Do not tow a trailer. This vehicle is a performance ATV and is not designed for such use.
- Never permit ATV refueling by anyone other than an adult.
- Drain gasoline from the fuel tank and carburetor prior to transporting the ATV.
- Caution the rider and others near the ATV not to get close to or touch any moving parts or any heated areas such as the engine and exhaust system.
- This ATV always come on the position lamp, speedometer lamp, tail lamp and license plate lamp when starting engine.
- This ATV has a reverse gear. The reverse gear indicator lamp will come on when the transmission is in reverse gear. To shift into reverse gear, completely stop the ATV and wait 3

seconds.

Shifting into reverse gear when the ATV is moving can be hazardous and damage the ATV.

If you shift the ATV into reverse gear when the ATV is moving it could stop suddenly, throwing you from the ATV.

Always come to a complete stop before shifting into reverse gear.

Check the area behind the ATV if you are about to reverse.

After the ATV reverse, completely stop it and wait 3 seconds.

- Before the ATV started, confirm that the reverse gear is released.

If you started the ATV that reverse gear is shifted into, it could be hazardous and damage the ATV.

Always be sure there are no obstacles or people behind you when you operate in reverse.

When it is safe to proceed in reverse, go slowly.

- Confirm the safety certainly when it is parked, as sliding or roll over on slippery or loose surfaces.
- This ATV can only be started if the clutch is disengaged.

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## SERIAL NUMBER LOCATION

The frame and/or engine serial numbers are used to register the vehicle.

They are also to assist your dealer in terms of ordering parts or referring to special service information.

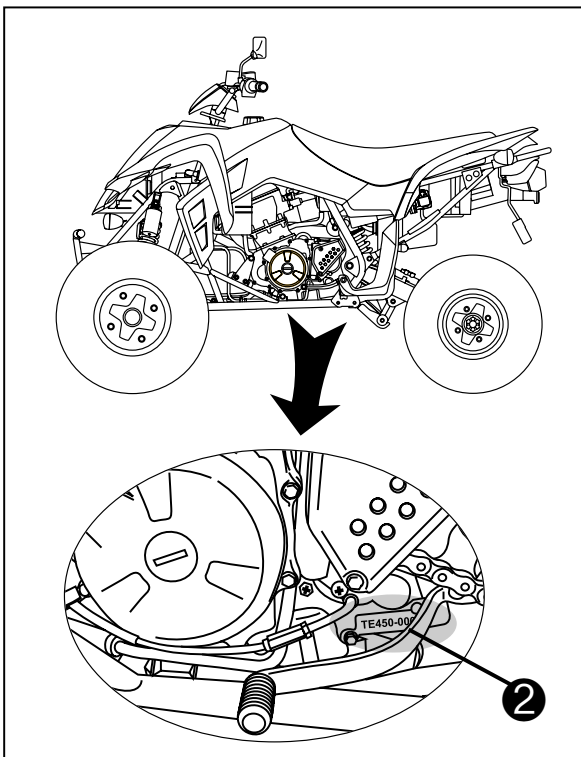
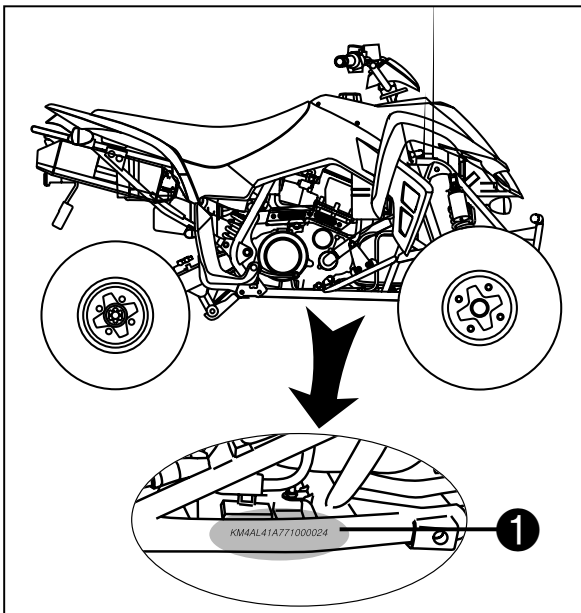
The frame serial number① is stamped on the right side of the frame pipe.

The engine serial number② 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 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

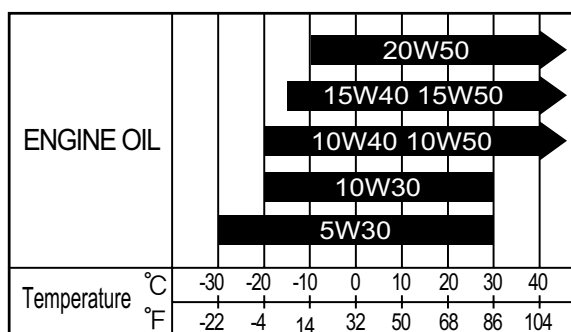
- When refueling, always shut the engine off and turn the ignition key to the "⊗" (OFF) position. Never refuel near the flames, sparks and heat sources.
- Do not overfill the fuel tank. Do not fill gasoline above the fuel tank entrance lower end.

### ENGINE OIL

#### ⊙ 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.

### N O T E

*In very cold weather (below  $-15^{\circ}\text{C}$  ( $5^{\circ}\text{F}$ )), 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 ATV.

### ⚠ 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.
- Don't put the patch on the engine oil level gauge and outer cover oil filler cap. It could disturb the oil to be provided and damage the engine.

## 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)	1.4 ℓ
---------------------------	-------

50%	Water	0.7 ℓ
	Engine coolant	0.7 ℓ

## N O T E

*This 50% mixture will protect the cooling system from freezing at temperatures above  $-31^{\circ}\text{C}$ . If the vehicle is to be exposed to temperature below  $-31^{\circ}\text{C}$ , this mixing ratio should be increased up to 55% ( $-40^{\circ}\text{C}$ ) or 60% ( $-55^{\circ}\text{C}$ ). The mixing ratio should not exceed 60%.*

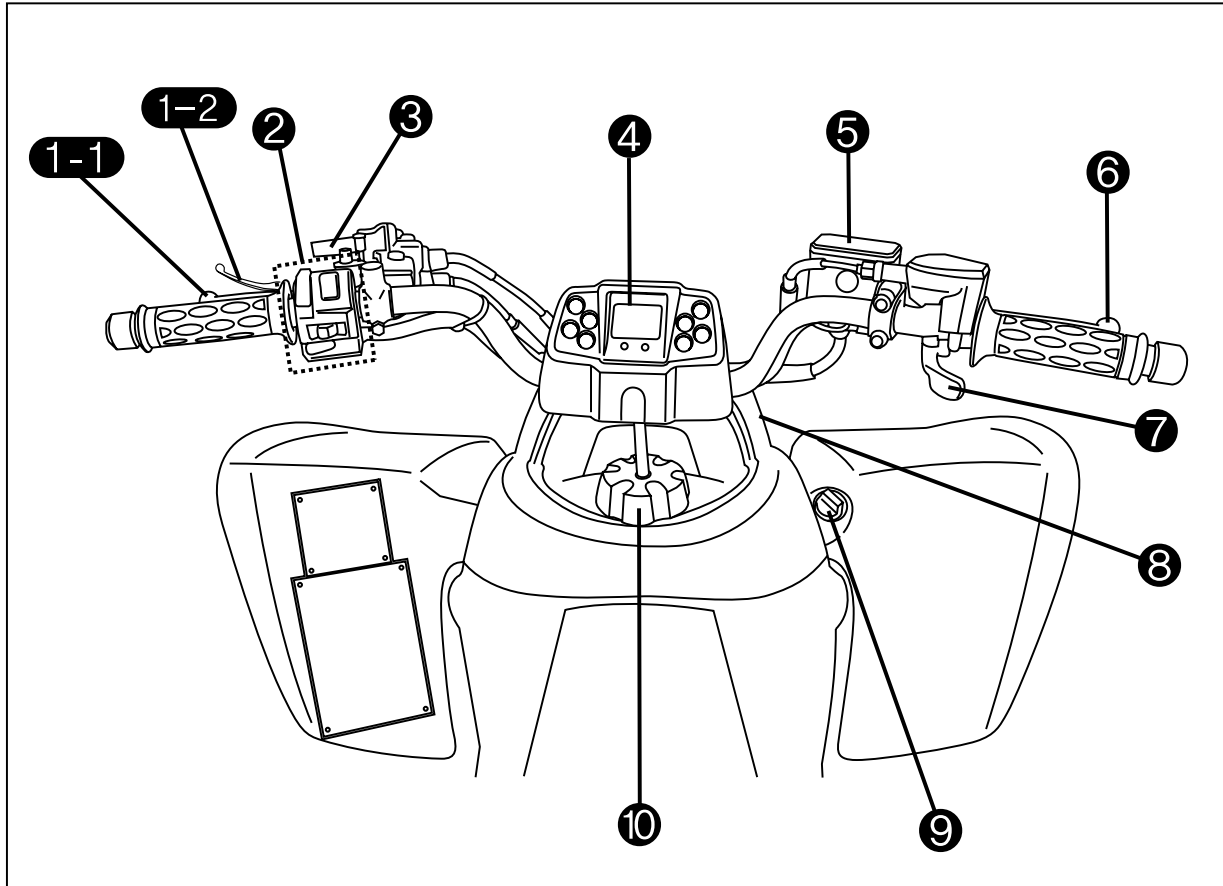
## ● COOLANT RESERVOIR TANK

 Refer to 72 page.

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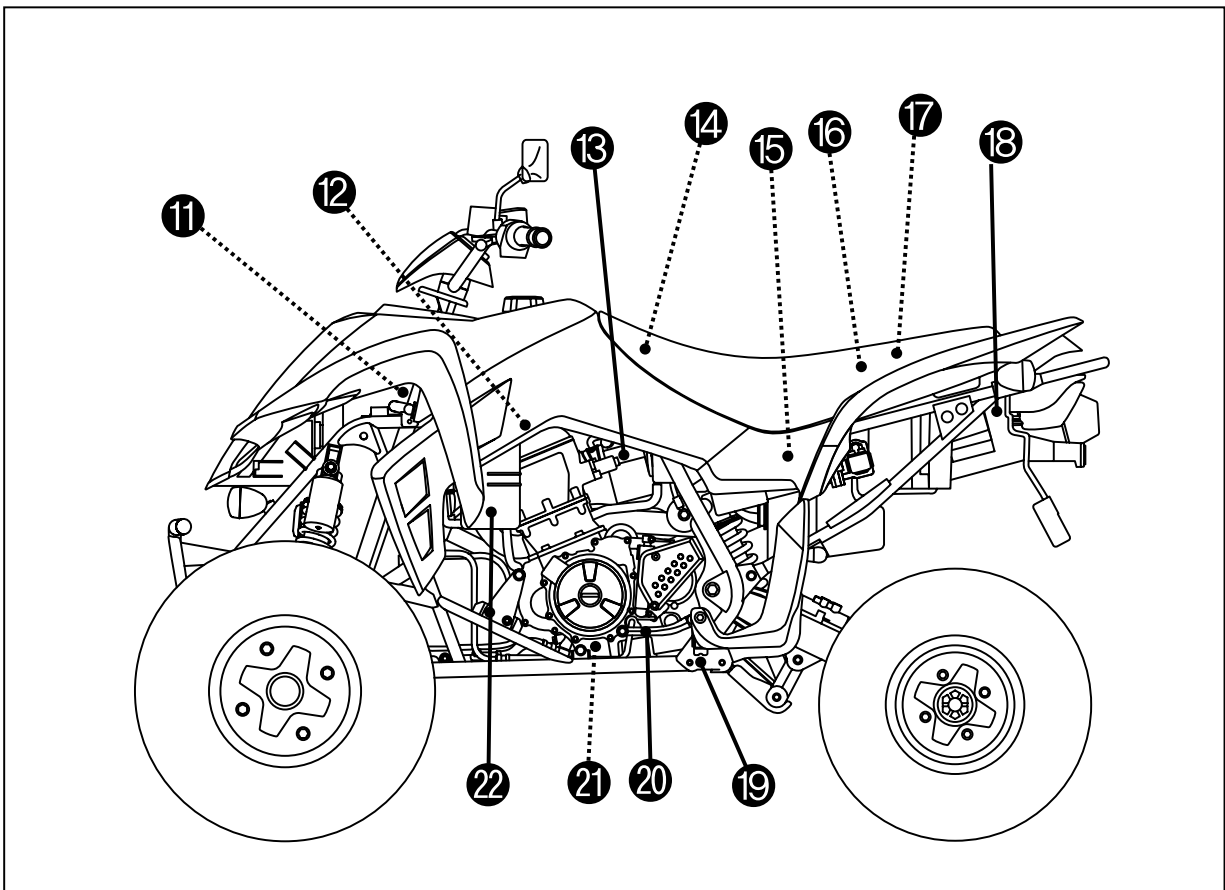
## NAMES OF EACH PARTS

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

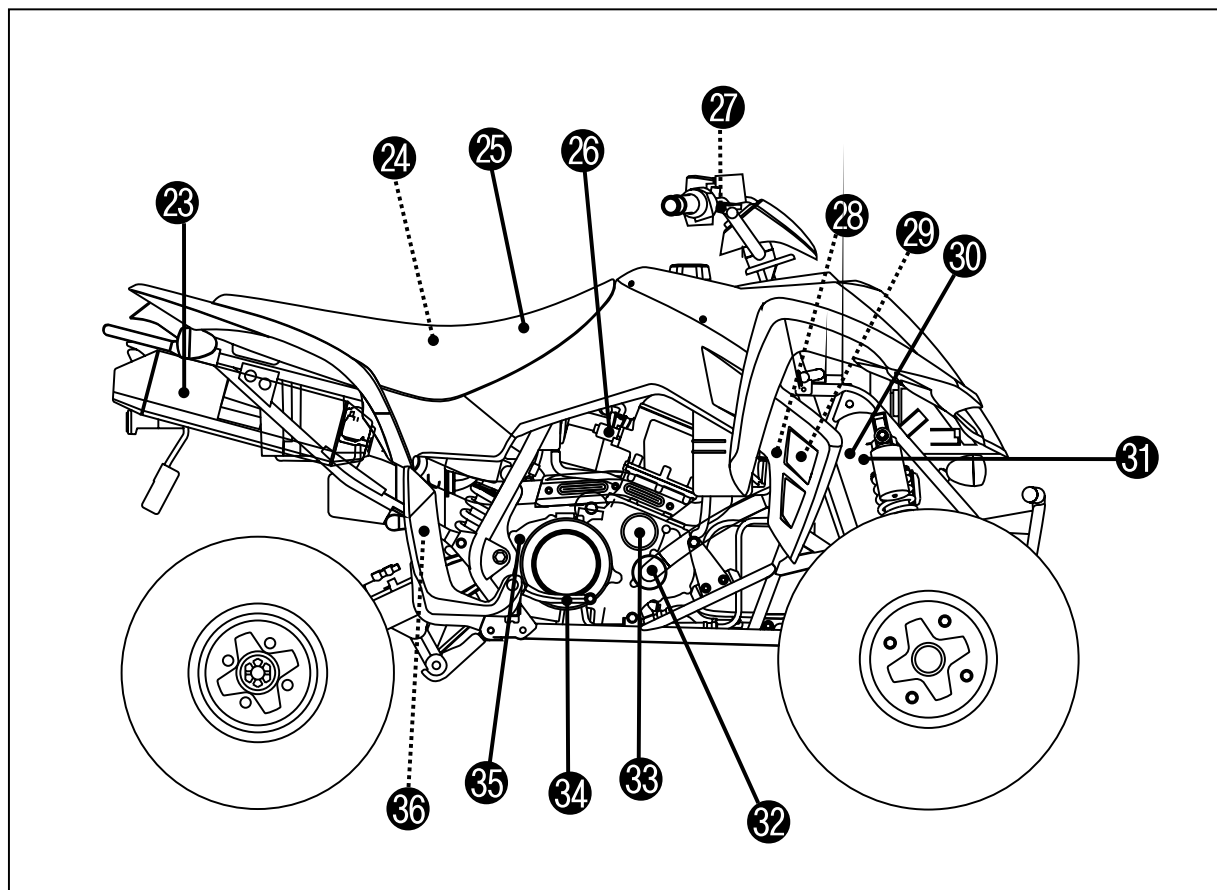
- ⑥ Front brake lever
- ⑦ Throttle lever
- ⑧ Ignition switch
- ⑨ Reverse lever
- ⑩ Fuel tank cap



- |                          |                                     |
|--------------------------|-------------------------------------|
| ⑪ Ignition coil          | ⑰ Tools                             |
| ⑫ Spark plug             | ⑱ Seat lock lever                   |
| ⑬ Carburetor choke lever | ⑲ Footrests                         |
| ⑭ Fuel pump              | ⑳ Gearshift lever                   |
| ⑮ Fuse                   | ㉑ Engine oil drain plug (Crankcase) |
| ⑯ Battery                | ㉒ Coolant reservoir tank            |

## N O T E

“-----” : means the invisible parts.



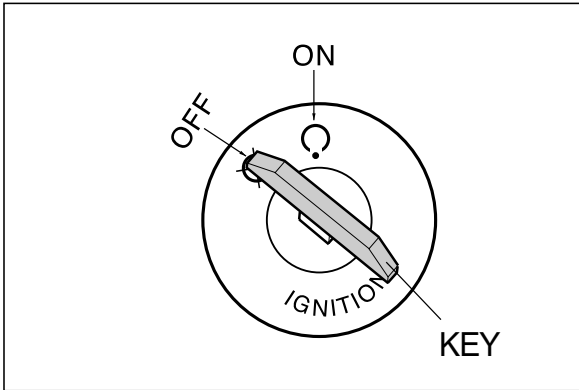
- |                            |                               |
|----------------------------|-------------------------------|
| ②③ Muffler                 | ③① Engine oil tank            |
| ②④ Air cleaner             | ③② Engine oil level gauge     |
| ②⑤ Seat                    | ③③ Water pump                 |
| ②⑥ Throttle stop screw     | ③④ Engine oil filter          |
| ②⑦ Front brake lamp switch | ③⑤ Rear brake pedal           |
| ②⑧ Cooling fan and motor   | ③⑥ Rear brake lamp switch     |
| ②⑨ Radiator                | ③⑦ Rear brake fluid reservoir |

## N O T E

“-----” : means the invisible parts.

## CONTROLS

### IGNITION SWITCH



This ATV has the ignition switch at the rightside.

The ignition switch has two positions :

#### ⦿ “” (OFF) POSITION

All electrical circuits are cut off.

The engine will not start.

The key can be removed.


#### ⦿ “” (ON) POSITION

The ignition circuit is completed and the engine can now start.

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



## WARNING

Turning the ignition switch to the “” (OFF) position while the ATV is moving can be hazardous.

### IGNITION KEY

This ATV comes equipped with two ignition keys.

Keep the spare key in a safe place.

Your ATV ignition keys are stamped with an identifying number. This number is used when making replacement keys.

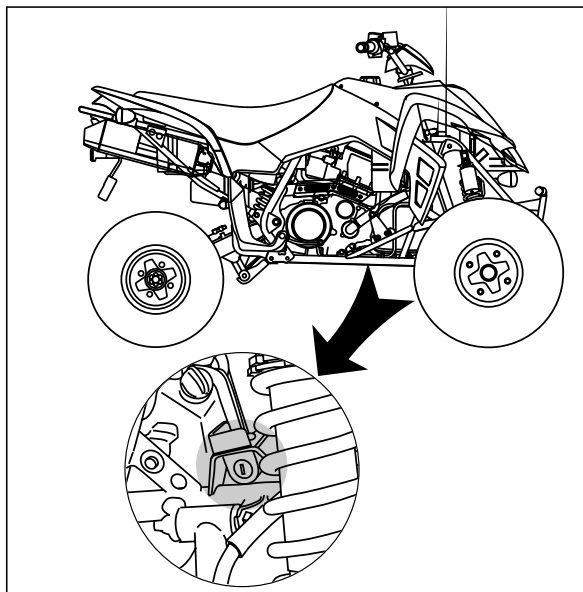
Please write your key number in the box provided for your future reference.

Key number :



## STEERING LOCK

This ATV has the steering lock above the upper right suspension arm assembly.



To lock the steering :

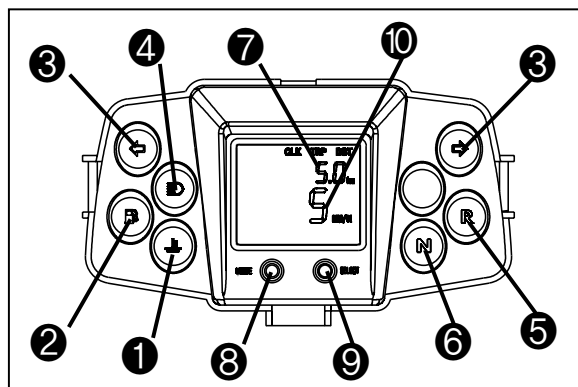
- ① Turn the handlebar all the way to the right.
- ② Insert the ignition key into the steering lock, and take a turn it from the “●” position.
- ③ Remove the ignition key.

## WARNING

**Do not operate the steering lock while driving at one's pleasure.**  
**Moving the ATV while the steering is locked can be hazardous. You could lose your balance and fall, or you could drop the ATV.**

**Stop the ATV and place it on a level surface before locking the steering.**  
**Never attempt to move the ATV when the steering is locked.**

## INSTRUMENT PANEL



## CAUTION

**When the ignition switch is turned to the “●” (ON) position, the display of speedometer will come on.**

### ① COOLANT TEMPERATURE INDICATOR LAMP

The coolant temperature indicator lamp will come on when the coolant gets too hot while operating.

When coolant temperature is higher than 120°C (248°F), the coolant temperature indicator lamp comes on.

## CAUTION

Operating the ATV while the coolant temperature indicator lamp is lit can damage your ATV.

Continued operation of the ATV with high engine coolant temperature may result in engine damage or premature wear.

If the coolant temperature indicator lamp comes on, stop the engine and allow it to cool before restarting.

Refer to the note below.

## **N O T E**

- *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.*

### ② FUEL INDICATOR LAMP

The fuel indicator lamp will come on when the fuel drop below approximately 1.2 ℓ .

Check if the remaining gasoline is enough for running to the destination.


Fill the fuel tank before the indicator lamp lit.

The fuel tank capacity is 8 ℓ .

## CAUTION

When the fuel indicator lamp comes on, you should add fuel to the fuel tank at the first opportunity to avoid running out of fuel.

## CAUTION

For checking the fuel indicator lamp, hold the ATV horizontally and the ignition switch “” (ON).

## CAUTION

The lack of fuel will go off suddenly. Failure to observe this precaution may result in loss of control and an accident.

### ③ TURN SIGNAL INDICATOR LAMP

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

### ④ HIGH BEAM INDICATOR LAMP

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

### ⑤ REVERSE INDICATOR LAMP

The reverse indicator lamp will come on when the transmission is in reverse gear.

### ⑥ NEUTRAL INDICATOR LAMP

The 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.

### ⑦ ODOMETER / TRIP METER / CLOCK

The display in it has three functions, odometer, trip meter and clock.

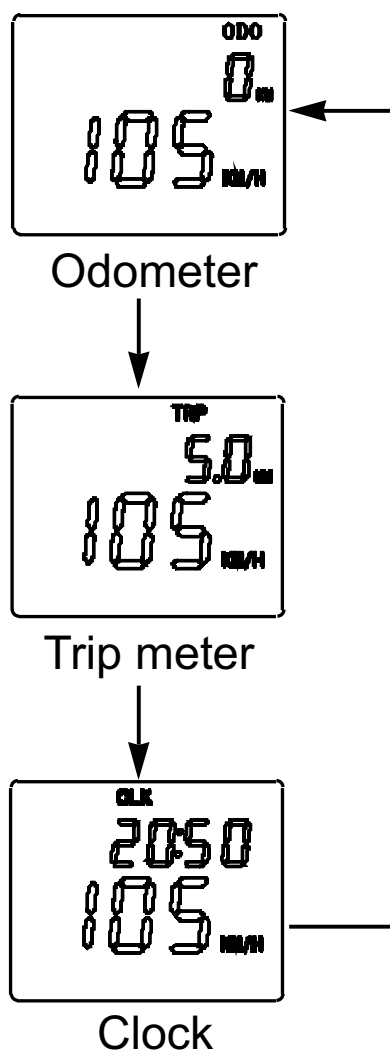
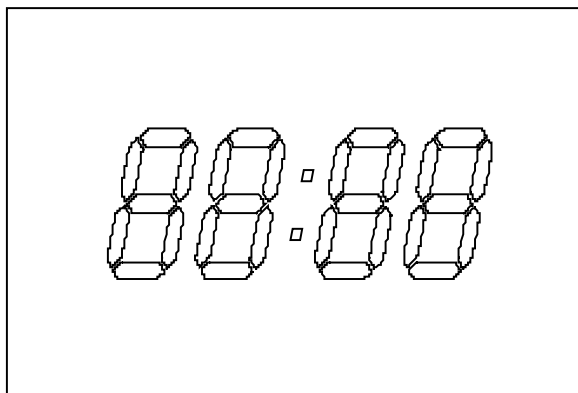
The display changes odometer, trip meter or clock, as indicated before turning the ignition switch off.

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

The trip meter is resettable odometer.

The clock indicates 24-hour mode.

To change the display, push the switch ⑧ for 0.6 ~ 1 seconds while the display indicates the odometer, trip meter or clock you want to change.



To reset the trip meter to zero, push the switch ⑨ (in the trip meter mode) for 0.6 ~ 1 seconds.

Follow the procedure below to adjust the clock.

1. Push the switch ⑨ (in the clock mode) for 0.6 ~ 1 seconds until the hour display blink. It is the hour reset mode.
2. Adjust the hour display by pushing the switch ⑧ (in the hour reset mode) for 0.6 ~ 1 seconds.
3. Push the switch ⑨ (in the hour reset mode) for 0.6 ~ 1 seconds until the minutes display blink. It is the minutes reset mode.
4. Adjust the minutes display by pushing the switch ⑧ (in the minutes reset mode) for 0.6 ~ 1 seconds.
5. Push the switch ⑨ (in the minutes reset mode) 0.6 ~ 1 seconds to resume in the clock mode.

## WARNING

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

**Always keep both hands on the handlebar while riding.**

CLOCK ADJUSTMENT			
Mode	Switch	Push it for	Adjustment
<b>Clock</b>	Select (⑨)	0.6 ~ 1 seconds	Clock mode → Hour reset mode
<b>Hour reset mode</b>	Mode (⑧)	0.6 ~ 1 seconds	Increase the hour of clock
	Select (⑨)	0.6 ~ 1 seconds	Hour reset mode → Minutes reset mode
<b>Minutes reset mode</b>	Mode (⑧)	0.6 ~ 1 seconds	Increase the minutes of clock
	Select (⑨)	0.6 ~ 1 seconds	Minutes reset mode → Clock mode

### ⑧ MODE SWITCH

Use this switch to adjust the following :

#### ● In the normal mode

Push it for	Adjustment
0.6 ~ 1 seconds	Odometer mode → Trip meter mode → Clock mode → Odometer mode

#### ● In the hour reset mode

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

#### ● In the minutes reset mode

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

### ⑨ SELECT SWITCH

Use this switch to adjust the following :

#### ● In the clock mode

Push it for	Adjustment
0.6 ~ 1 seconds	Clock mode → Hour reset mode

#### ● In the hour reset mode

Push it for	Adjustment
0.6 ~ 1 seconds	Hour reset mode → Minutes reset mode

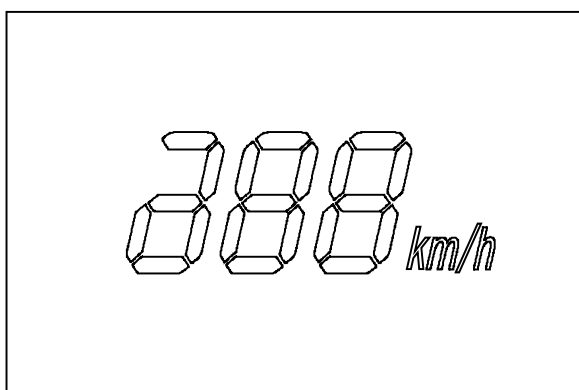
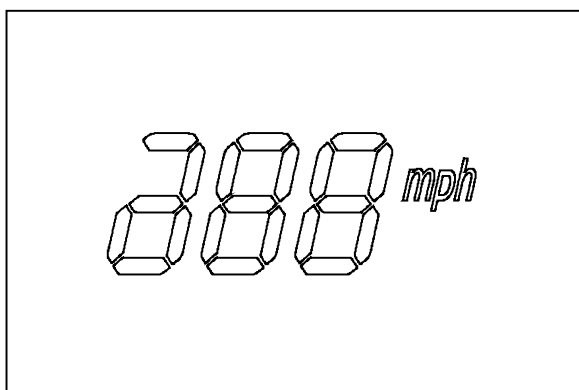
#### ● In the minutes reset mode

Push it for	Adjustment
0.6 ~ 1 seconds	Minutes reset mode → Clock mode

#### ● In the trip meter mode

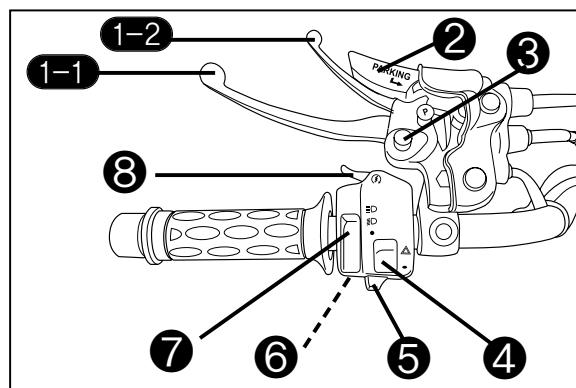
Push it for	Adjustment
0.6 ~ 1 seconds	To reset the trip meter to zero

## ⑩ SPEEDOMETER



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

## LEFT HANDLEBAR



### ①-① 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.

### ①-② EMERGENCY BRAKE LEVER

The emergency brake lever is used for applying to the rear brake during emergency situation.

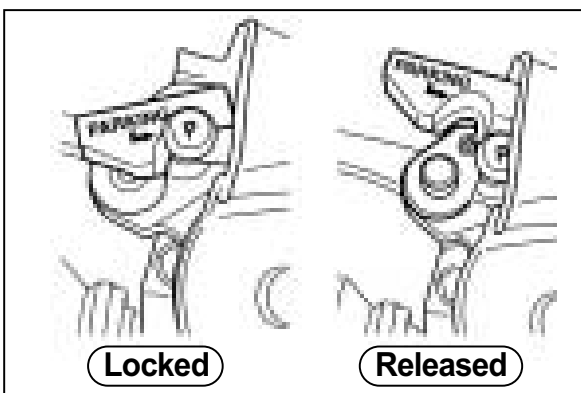
### ② PARKING BRAKE LEVER KNOB

Use this knob to set and lock the parking brake.

Use the parking brake to help prevent this ATV from moving when it is parked, being started, or at idle.

To lock the parking brake, push the pin ③, squeeze the clutch lever and engage this knob.

To release the parking brake, simply squeeze the clutch lever until the knob releases.



#### ④ HAZARD WARNING SWITCH

- “ ” : All four turn signal lamp and indicator lamp will flash simultaneously when the switch is turn on.
- “ ” : The turn signal lamp and indicator lamp go off.

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

#### ⑤ 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.

### 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.**

#### ⑥ HORN SWITCH

Press the switch to operate the horn.

#### ⑦ LIGHT & DIMMER SWITCH

Use the Light & Dimmer switch to select the high or low head lamp beam and put off the head lamp when ignition switch is in the “ ” (ON) position.

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

### WARNING

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

#### ⑧ STARTER SWITCH

Use this switch to operate the starting motor.

With the ignition switch in the “ ” (ON) position, the transmission is in neutral, squeeze in the clutch lever and push the starter switch to start the engine.

### WARNING

**This ATV can only be started if the clutch is disengaged.**

## **⚠ CAUTION**

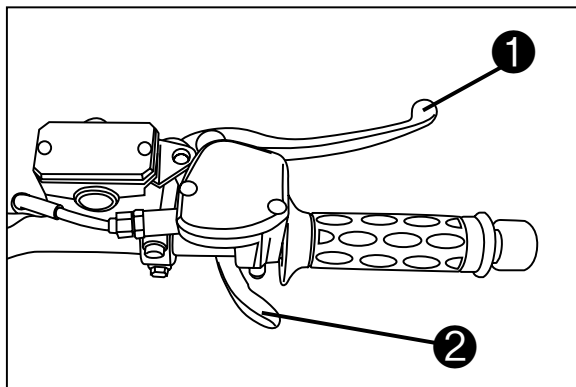
This ATV always comes on the position lamp, speedometer lamp, tail lamp and license plate lamp when starting the engine.

## **⚠ CAUTION**

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 87 )

## **RIGHT HANDLEBAR**



### **① FRONT BRAKE LEVER**

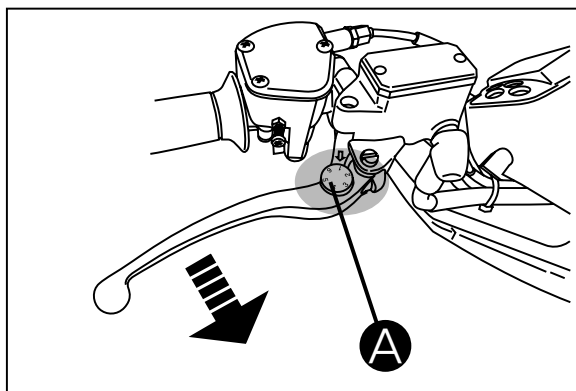
The front brake is applied by squeezing the front brake lever gently toward the handle grip.

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.

### **⊙ FRONT BRAKE LEVER ADJUSTMENT**



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

To change the position, push the brake lever forward and turn the adjuster Ⓐ to the

desired position.

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 adjuster.

This ATV is delivered from the factory with its adjuster set on position 1.



## WARNING

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

### ② THROTTLE LEVER

Engine speed is controlled by position of the throttle lever.

Operate this lever with your thumb.

Push it forward to increase engine speed.

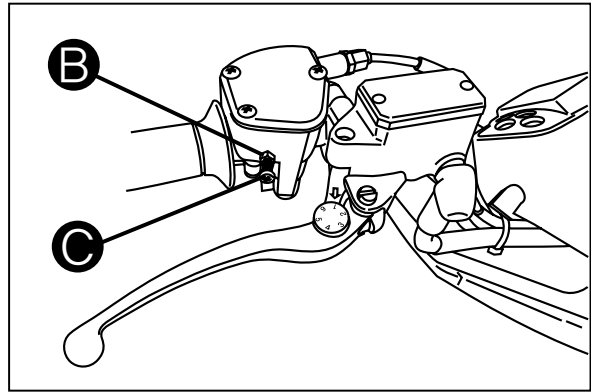
Release it to decrease engine speed.



## WARNING

**Avoid pushing the throttle lever during brakes.**

### ③ THROTTLE LIMITER



This ATV is equipped with the throttle limiter to restrict maximum engine power by limiting throttle lever travel.

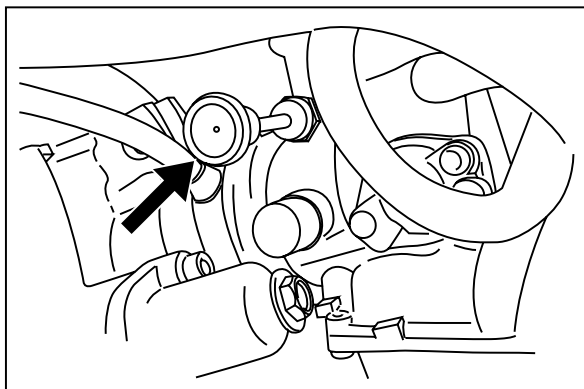
Adjust this limiter to limit maximum ATV speed according to the rider's skill and experience.

To adjust the throttle limiter :

1. Loosen the lock nut ①.
2. Turn the throttle limiter screw ② clockwise to restrict maximum engine power or counter-clockwise to increase maximum engine power.
3. Tighten the lock nut ①.



## CARBURETOR CHOKE LEVER



The carburetor of this ATV has a choke system to provide easy starting when the engine is cold.

When starting the cold engine, pull the choke lever all the way toward the outside.

The choke system works best when the throttle is in the closed position.

When the engine is warm, you do not need to use the choke system for starting.

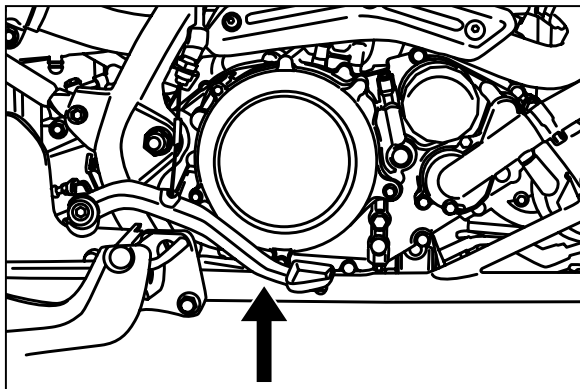
### CAUTION

**If you keep running in condition of full choke lever, it causes fuel excess exhaustion, high speed not to run, it may damage spark plug.**

## REAR BRAKE PEDAL

Depressing the rear brake pedal will apply the rear brake.

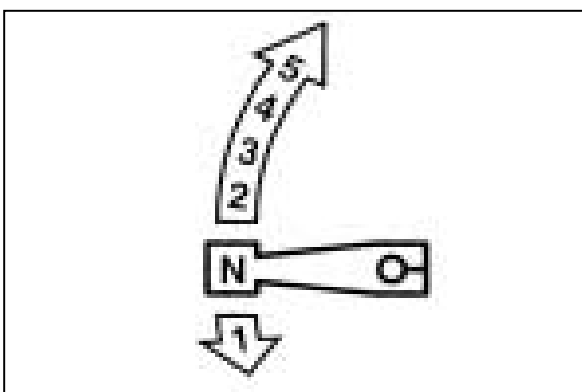
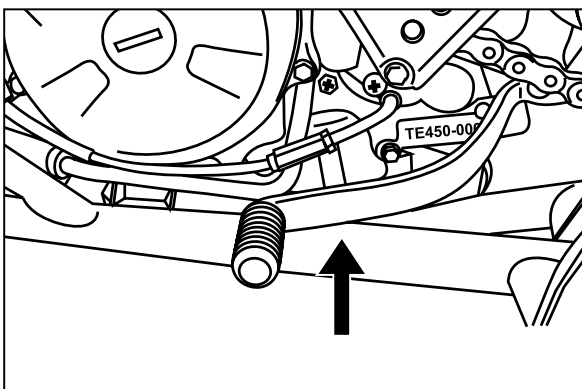
The brake lamp will be illuminated when the rear brake is operated.



### WARNING

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

## GEARSHIFT LEVER



This ATV has a 5-speed transmission which operates as shown in the illustration.

This shift lever is attached to a ratchet type mechanism in transmission.

To shift properly, pull 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 ATV speed before downshifting.

When downshifting, the engine speed should be increased before the clutch is engaged.

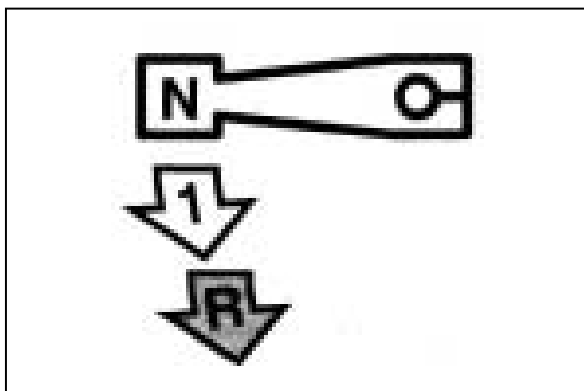
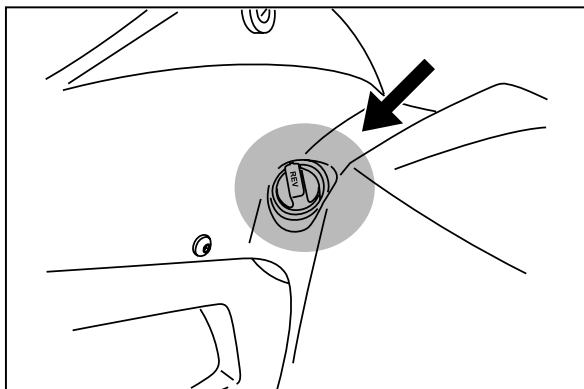
This will prevent unnecessary wear on the drive train components and the rear tire.

## **⚠ 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.**

## REVERSE LEVER



This ATV has a reverse gear.

To shift into reverse gear, completely stop the ATV and shift the transmission into 1st gear while holding the clutch lever in.

Turn the reverse lever clockwise and push down the gearshift lever.

To shift into 1st gear, lift up the gearshift lever.

## NOTE

- *Depress the rear brake pedal and engage clutch partially if it is hard to shift into reverse or return to 1st gear.*
- *Check that the reverse indicator lamp is lit after shifting into reverse.*

## WARNING

Shifting into reverse gear when the ATV is moving can be hazardous.

If you shift the ATV into reverse gear when the ATV is moving, it could stop suddenly, throwing you from the ATV.

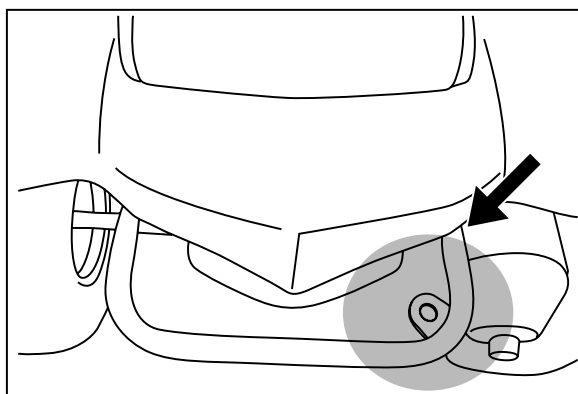
Always come to a complete stop and shift into neutral before shifting into reverse gear.

## WARNING

Always be sure there are no obstacles or people behind you when you operate in reverse.

When it is safe to proceed in reverse, go slowly.

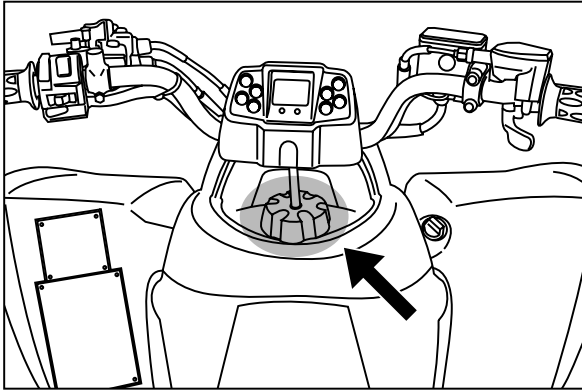
## FLAG BRACKET



A bracket is provided so you can mount a flag on your ATV.

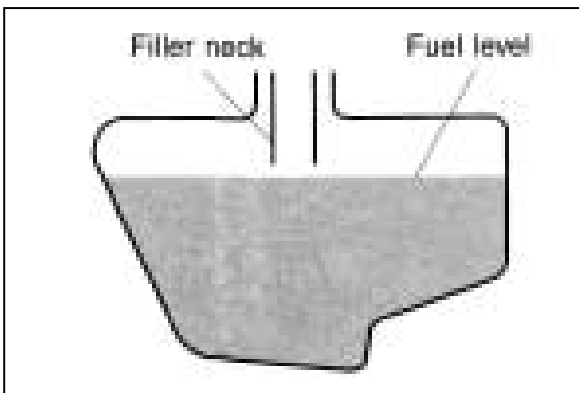
## EQUIPMENT AND ADJUSTMENTS

### FUEL TANK CAP



To open the fuel tank cap, remove the end of the vent tube from the hole in the ATV body and turn the fuel tank cap counter-clockwise.

To close the fuel tank cap, turn it clockwise and tighten it securely. Be sure that the end of the vent tube is reinstalled in the hole in the ATV body.



### WARNING

Do not overfill the fuel tank.

Stop adding fuel when the fuel level reaches the bottom of the filler neck as shown in the illustration.

If you fill the fuel tank beyond this level, fuel may overflow when it expands due to engine heat or heating by the sun.

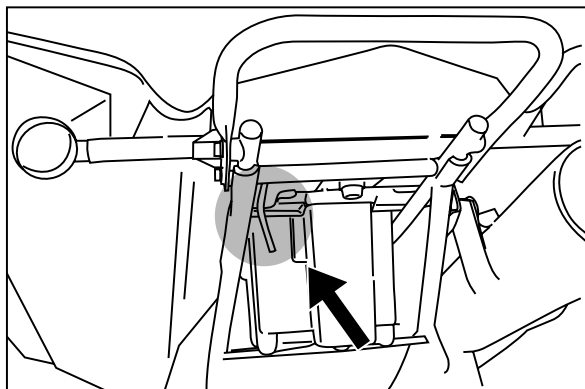
### WARNING

Gasoline is extremely flammable and toxic.

Always observe the following precautions when refueling your ATV.

- Never permit ATV 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.

## SEAT REMOVAL



To remove the seat, move the seat lock lever backward.

Raise the rear end of the seat and slide it backward.

To lock the seat, slide the seat hook into the seat hook retainer and push down firmly.

### **WARNING**

Improperly installing the seat can be hazardous.

Failure to install the seat properly could allow the seat to move and cause loss of rider control.

Make sure to properly position and securely attach the seat when you install it.

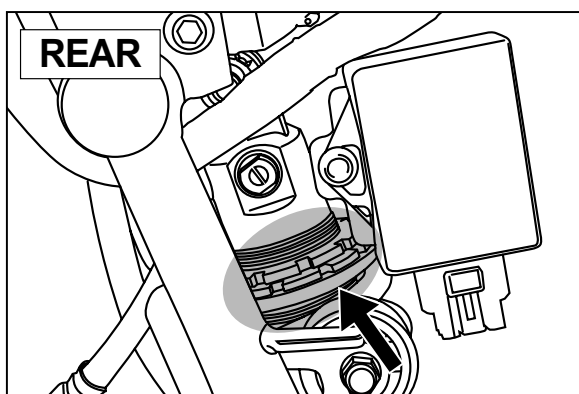
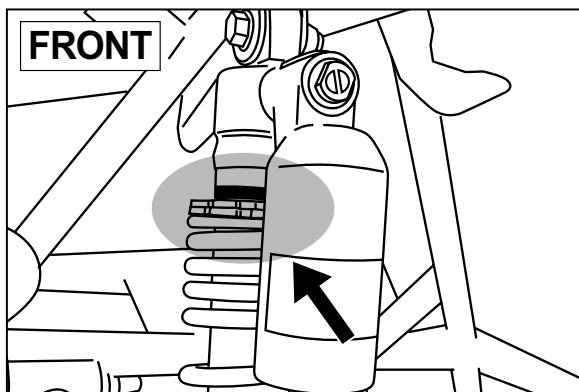
### **WARNING**

Hot muffler can be hazardous.

The hot muffler can be hot enough to burn you when moving seat lock lever.

## FRONT & REAR SUSPENSION

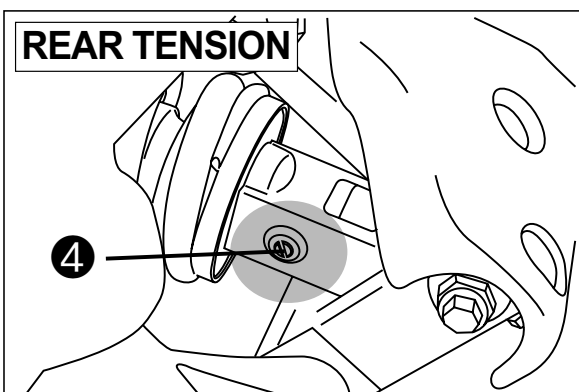
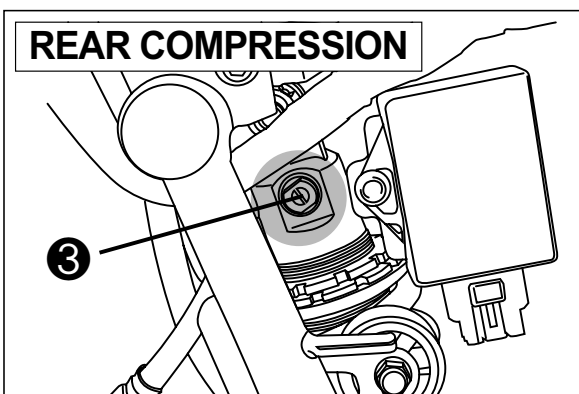
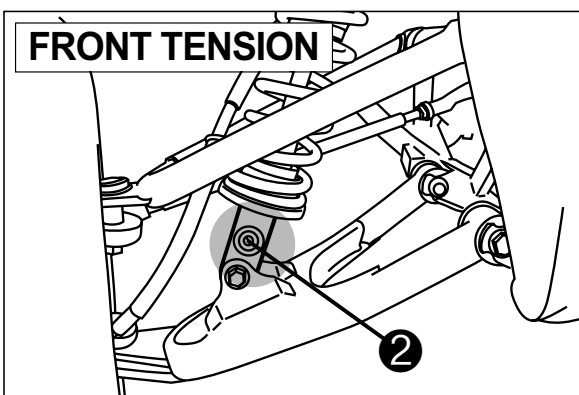
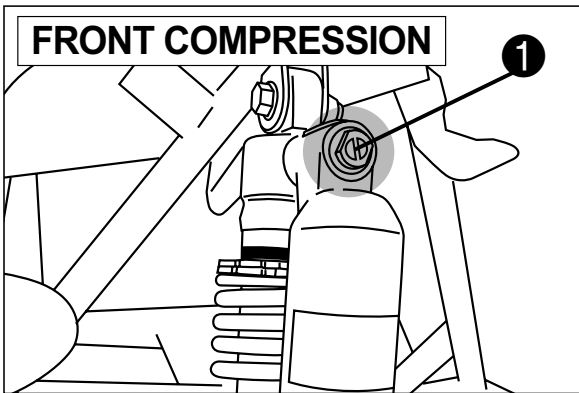
### ⦿ SPRING PRE-LOAD ADJUSTMENT



This adjustment can be performed by changing the adjuster ring position.

However, Hyosung recommends that this adjustment be done by your authorized Hyosung dealer.

## ⦿ DAMPING FORCE ADJUSTMENT



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

The compression damping force adjusters ①, ③ is located at the top of the front and rear suspension.

The tension damping force adjusters ②, ④ is located at the bottom of the front and rear suspension.

To adjust the damping force turn the adjuster fully for "S" or "H" direction (counter-clockwise or clockwise.)

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

Fully turned-in "H" direction (or clockwise) provides stiffest damping force and turning "S" direction (or counter-clockwise) the adjuster will soften damping force.

The compression and tension damping force is set on "Standard (Refer to page 31)" position at the factory.

### **WARNING**

**Unequal front suspension adjustment can cause poor handling and loss of stability.**

**Be sure to adjust the compression and tension damping force on right and left front shock absorbers to the same setting.**

STANDARD FRONT SUSPENSION DAMPING FORCE		
	Compression	Tension
Softer	Turn to "S" direction (counter-clockwise)	Turn to "S" direction (counter-clockwise)
Standard	1 ½ turn from end of "S" direction (counter-clockwise)	End of "S" direction (counter-clockwise)
Stiffer	Turn to "H" direction (clockwise)	Turn to "H" direction (clockwise)

STANDARD REAR SUSPENSION DAMPING FORCE		
	Compression	Tension
Softer	Turn to "S" direction (counter-clockwise)	Turn to "S" direction (counter-clockwise)
Standard	1 ½ turn from end of "S" direction (counter-clockwise)	1 ½ turn from end of "S" direction (counter-clockwise)
Stiffer	Turn to "H" direction (clockwise)	Turn to "H" direction (clockwise)

## RIDING YOUR ATV

### WHAT YOU SHOULD KNOW BEFORE RIDING

Before you ride, you should read all of the following information carefully.

If you are properly prepared, you will have a safer and more enjoyable ride.

#### **WARNING**

**Operation of this ATV by children under age 16 can be hazardous.**

**Use by children under age 16 can lead to their severe injury or death. Children under age 16 may not have the size, strength, skills, or judgment needed to operate this ATV safely.**

**Do not allow any child under age 16 to ride this ATV.**

#### **WARNING**

**Operating this ATV without proper instruction can be hazardous.**

**Your risk of having an accident greatly increases if you do not know how to operate the ATV properly in different situations and on different types of terrain.**

#### **WARNING**

**Operating this ATV after consuming alcohol or drugs can be hazardous.**

**Alcohol and drugs could seriously affect your judgment and cause you to react more slowly. They can also affect your balance and perception. Operating this ATV after consuming alcohol or drugs can result in an accident.**

**Never consume alcohol or drugs before or while riding this ATV.**

Before you begin riding, you should find a good place to practice the skills you need to ride safely. Find a flat, open area with enough space to practice new skills.

Make sure that it is legal to ride in the area you have selected. Review local laws to make sure you are not trespassing.

Check with your ATV dealer or call your local park ranger or police department if you do not know where you can ride.

Protect your riding areas. When you ride, remember to keep the terrain in good condition. Don't destroy plant life. Don't litter and don't bother wildlife.

With your help, your riding areas can remain open for you to use in the future.

After you have found a good place to practice, review the controls on your ATV before riding. Learn to find these controls without looking for them. You will not have time to look for them when you are riding.



## INSPECTION BEFORE RIDING

### **WARNING**

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

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

Always inspect your ATV 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 ATV 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 ATV. 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 ATV with improper modifications can be hazardous.

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

Never modify this ATV through improper installation or use of accessories. Refer to the **ACCESSORY USE AND VEHICLE LOADING** section in this manual.

### **WARNING**

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

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

Never exceed the stated load capacity for this ATV. Refer to the **ACCESSORY USE AND VEHICLE LOADING** section in this manual.

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

## **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 and throttle.

WHAT TO CHECK	CHECK FOR :
<b>Steering</b>	<ul style="list-style-type: none"> <li>● Smoothness</li> <li>● No restriction of movement</li> <li>● No play or looseness</li> </ul>
<b>Brakes</b>	<ul style="list-style-type: none"> <li>● Proper operation</li> <li>● Brake fluid level in the reservoir to be above "LOWER" line</li> <li>● No fluid leakage or damage</li> <li>● Proper pedal and lever play</li> <li>● No "sponginess"</li> <li>● Parking brake effectiveness</li> <li>● Brake pads not to be worn down to the limit line</li> </ul>
<b>Tires</b>	<ul style="list-style-type: none"> <li>● Proper pressure</li> <li>● Enough tread depth</li> <li>● No cracks, rips, or other damage</li> </ul>
<b>Wheel nuts</b>	Wheel nuts tightness
<b>Fuel</b>	<ul style="list-style-type: none"> <li>● Enough fuel for the intended run</li> <li>● Fuel hose connected securely</li> <li>● No damage to fuel tank or cap</li> <li>● Tank cap closed securely</li> </ul>
<b>Lamp</b>	Proper operation of all lamps and indicators

<b>Engine oil</b>	<ul style="list-style-type: none"> <li>● Correct level and pollution degree of engine oil</li> <li>● No engine oil leakage</li> </ul>
<b>Cooling system</b>	<ul style="list-style-type: none"> <li>● Proper coolant level</li> <li>● No leaks or damage</li> </ul>
<b>Throttle</b>	<ul style="list-style-type: none"> <li>● Proper cable play</li> <li>● Smooth response</li> <li>● Quick return to idle position</li> </ul>
<b>Clutch</b>	<ul style="list-style-type: none"> <li>● Correct lever play</li> <li>● Smooth and progressive action</li> </ul>
<b>Gearshift lever</b>	<ul style="list-style-type: none"> <li>● No damage lever</li> <li>● Smooth operation</li> </ul>
<b>Drive chain</b>	<ul style="list-style-type: none"> <li>● Proper tension</li> <li>● Adequate lubrication</li> <li>● No excessive wear or damage</li> </ul>
<b>Suspension</b>	Smooth movement
<b>Horn</b>	Correct function
<b>Rear-view mirror</b>	No dust or damage
<b>General condition</b>	<ul style="list-style-type: none"> <li>● Bolts and nuts are tight</li> <li>● No rattle from any parts of the ATV with the engine running</li> <li>● No visible evidence of damage</li> </ul>

## WHAT TO WEAR

### **WARNING**

**Operating this ATV without wearing an approved motorcycle helmet, eye protection and protective clothing can be hazardous.**

**Operating without an approved motorcycle helmet or eye protection increases your chances of a severe head injury or death in the event of an accident. Operating without protective clothing increases your chances of severe injury in the event of an accident.**

**Always wear an approved motorcycle helmet that fits properly.**

**Always wear eye protection (goggles or face shield). You should also wear gloves, boots, long sleeve shirt or jacket, and long pants.**

A helmet is the most important piece of gear you should wear. A helmet can help prevent a serious head injury. Choose a helmet that fits snugly. Ask your dealer for help in selecting a good quality helmet that fits properly.

You should wear eye protection when you ride. If a rock or branch hits you in the eyes, you could be severely injured. Wear goggles or a face shield.

Wear proper clothing when you ride.

The proper clothes can help protect you from injury. Wear a good pair of gloves, strong boots that fit over the ankle, long pants, and a long sleeve shirt.

## BREAK-IN

The first month is the most important in the life of your ATV. Proper operation during this break-in period will help assure maximum life and performance from your new ATV.

The following guidelines explain proper break-in procedures.

### ⦿ **MAXIMUM THROTTLE OPENING RECOMMENDATION**

During the first 10 hours of operation, you should always use less than 1/2 throttle.

### ⦿ **VARY THE ENGINE SPEED**

Vary the engine speed during the break-in period. This allows the parts to “load” (aiding the mating process) and then “unload” (allowing the parts to cool). Although it is essential to place some stress on the engine components during break-in, you must be careful not to load the engine too much.

### ⦿ **AVOID CONSTANT LOW SPEED**

Operating the engine at constant low speed (light load) can cause parts to glaze and not seat properly. Allow the engine to accelerate freely through the gears, without exceeding the maximum recommended throttle opening.

### ⦿ **ALLOW THE ENGINE OIL TO CIRCULATE BEFORE RIDING**


Allow enough idling time after warm or cold engine starting before revving the engine or placing the transmission in gear. This allows time for the lubricating oil to reach all critical engine components.

## ⦿ OBSERVE YOUR INITIAL AND MOST CRITICAL SERVICE

The initial service (break-in maintenance) is the most important service your ATV will receive. During break-in operation, all of the engine components will have mated together and seated. Maintenance required as part of the initial service includes correction of all adjustments, tightening of all fasteners and replacement of dirty oil. Timely performance of this service will help make sure you get the best service life and performance from the engine.

## STARTING THE ENGINE

Before attempting to start the engine, make sure to follow these steps.

1. Set the parking brake.
2. Shift the transmission to neutral.
3. Turn the key to the “” (ON) position.

### ⦿ WHEN THE ENGINE IS COLD :

If the ambient temperature is below 5°C (40°F) :

1. Pull the choke lever to the ENGAGE position.
2. Apply the rear brake pedal and release the parking brake by squeezing the clutch lever.
3. Squeeze the clutch lever and push the electric starter switch.
4. Immediately after the engine starts, return the choke lever halfway.
5. When the engine is sufficiently warmed up, move the choke lever to the “OFF” position.

If the ambient temperature is at or above 5°C (40°F) :

1. Pull the choke lever to the ENGAGE position halfway.
2. Apply the rear brake pedal and release the parking brake by squeezing the clutch lever.
3. Squeeze the clutch lever and push the electric starter switch.
4. When the engine is sufficiently warmed up, move the choke lever to the “OFF” position.

## N O T E

***If the ambient temperature is above 20°C (68°F), operation of the choke is not necessary to start the engine. Operation of the choke can make the engine hard to start due to too rich fuel/air mixture.***

### ⊙ WHEN THE ENGINE IS WARM :

1. Apply the rear brake pedal and release the parking brake by squeezing the clutch lever.
2. Squeeze the clutch lever, open the throttle slightly and push the electric starter switch.

### **N O T E**

*Operation of the choke is not necessary to start the engine. Operation of the choke can make the engine hard to start due to too rich fuel/air mixture.*

### **CAUTION**

Engaging the starting motor for more than five seconds at a time can damage the ATV.

The starting motor and wiring harness may overheat.

If the engine does not start after several tries, check the fuel supply and ignition system. (Refer for page 87)

### **WARNING**

Running your ATV indoors where there is little or no ventilation can be hazardous.

When breathed in, exhaust gases from the ATV can cause death or severe injury.

Always run your ATV outdoors where there is fresh air.

## STARTING OFF AND SHIFTING

### ⊙ ON-ROAD type

### **WARNING**

「ON-ROAD type ATV」 is designed and manufactured for ON-ROAD use only, and handling maneuvers are more difficult to perform on rough surfaces. It is illegal and unsafe to operate 「ON-ROAD type ATV」 on any hills and rough or loose terrain.

「ON-ROAD type ATV」 complies with all applicable ON-ROAD noise level and spark arrester laws and regulation in effect at the time of manufacture. Please check your local riding laws and regulations before operating 「ON-ROAD type ATV」.

## ⦿ OFF-ROAD type

### **WARNING**

Operating 「OFF-ROAD type ATV」 on paved surfaces, including sidewalks, paths, parking lots, driveways, and streets can be hazardous.

「OFF-ROAD type ATV」 tires are designed for OFF-ROAD use. Paved surfaces may seriously affect handling and control of the ATV, and may cause the vehicle to go out of control.

Avoid operating the 「OFF-ROAD type ATV」 on paved surfaces whenever possible. If you must ride on a paved surface, go slowly and do not make sudden turns or stops.

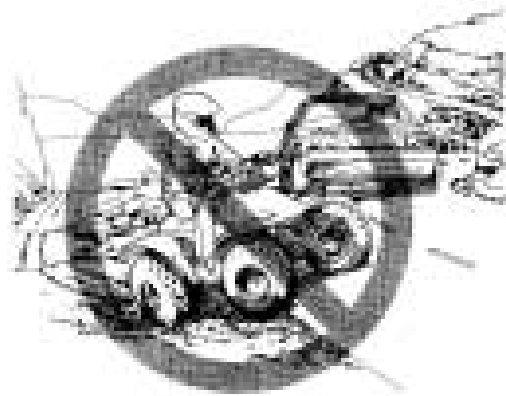


### **WARNING**

Operating 「OFF-ROAD type ATV」 on public streets, roads or highways can be hazardous.

You can collide with another vehicle if you ride on public roads.

- Never operate 「OFF-ROAD type ATV」 on any public street, road or highway, even a dirt or gravel one.
- In many states it is illegal to operate ATVs on public streets, roads and highways.



## **WARNING**

**Operating this ATV at excessive speeds can be hazardous.**

**Riding at excessive speeds increases your chances of losing control of the ATV, which can result in an accident.**

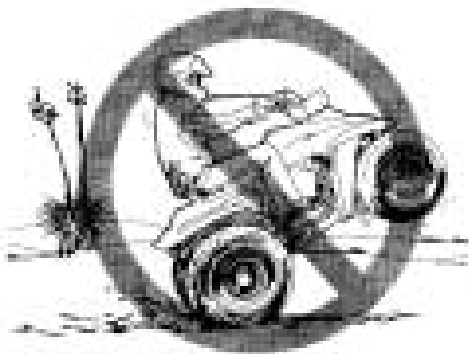
**Always go at a speed that is proper for the terrain, visibility and operating conditions, your skills and experience.**

## **WARNING**

**Attempting wheelies, jumps, and other stunts can be hazardous.**

**Stunt riding increases the chance of an accident, including an overturn.**

**Never attempt stunts, such as wheelies or jumps. Don't try to show off.**



## **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 ATV, you can reduce your ability to control the ATV. This could cause you to lose your balance and fall off the ATV. If you remove a foot from a footrest, your foot or leg may come in contact with the rear wheels. This could injure you or cause an accident.**

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

## **WARNING**

Failure to use extra care when operating on excessively rough, slippery, or loose terrain can be hazardous.

Failure to use extra care can cause loss of traction or vehicle control. This could result in an accident, including an overturn.

Do not operate under these conditions until you have learned and practiced the skills necessary to control the ATV on such terrain.

Always be especially cautious on these kinds of terrain.

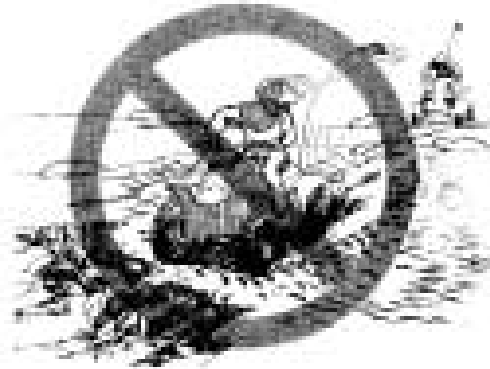


## **WARNING**

Failure to use extra care when operating this ATV on unfamiliar terrain can be hazardous.

You can come upon hidden rocks, bumps, or holes, without enough time to react. This could cause the ATV to overturn or go out of control.

Go slowly and be extra careful when operating on unfamiliar terrain. Always be alert to changing terrain conditions when operating the ATV.



## **WARNING**

The ATV can start moving as soon as you release the parking brake.

Unexpected movement can cause you to lose control of the ATV.

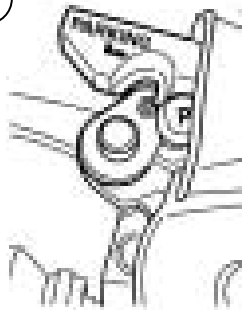
Make sure you shift into neutral and apply the rear brake before you release the parking brake.



**LOCKED**



**RELEASED**



After making sure that the engine is warm, apply the rear brake and then release the parking brake. To release the parking brake, simply squeeze the clutch lever until the parking brake lever knob releases.

Pull in the clutch lever and engage first gear by pushing down the gearshift lever while depressing the rear brake pedal. To start moving, slowly release the clutch lever as you gradually open the throttle. As the clutch engages, release the rear brake. When the ATV's speed increased, pull in the clutch lever and release the throttle at the same time. Lift the gearshift lever to engage second gear and release the clutch lever. You can select third, fourth, and top gear in succession by repeating this shifting sequence.

Reduce ATV speed before shifting down. To shift down, release the throttle and push down on the gearshift lever to engage a lower gear.



## **WARNING**

Opening the throttle suddenly can be hazardous.

The front wheels can lift off the ground and cause loss of control of the ATV.

Always open the throttle gradually when you accelerate.



## **WARNING**

Shifting incorrectly can be hazardous.

Downshifting at too high of a speed can cause sudden slowing and may pitch the rider forward.

Also, 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.

## BRAKING

To stop the ATV, first release the throttle lever. Next, apply the front and rear brakes evenly and at the same time. As ATV speed decreases, shift down through the gears.

### **WARNING**

**Braking while turning the ATV can be hazardous.**

**Use of the brake when turning could cause the ATV to slide or roll over.**

**Use the brakes to slow down before you begin to turn.**

### **WARNING**

**Braking hard on slippery surfaces can be hazardous.**

**The ATV can skid and go out of control if you brake too hard.**

**Apply the brakes lightly and with care on slippery surfaces.**

### **WARNING**

**Operating the parking brake lever knob when the ATV is moving can be hazardous.**


**The rear wheels can lock, causing a skid and an accident.**

**Use the parking brake only after you stop the ATV.**

## PARKING

After stopping the ATV according to the “BRAKING” section, shift to neutral.

Neutral position can be confirmed by observing the neutral indicator lamp.

Park the ATV on a flat surface and set the parking brake lever knob. Turn the ignition switch to the “”(OFF) position. Always remove the key from the ATV when leaving the ATV.

### **WARNING**

**Confirm the safety certainly when it is parked, as sliding or roll over on slippery or loose surfaces.**

## TURNING



### WARNING

**Turning the ATV improperly can be hazardous.**

**If you turn the ATV improperly, it may cause a collision or overturn.**

**Always follow proper procedures for turning as described in this section. Practice turning at low speeds before attempting to turn at faster speeds. Never turn at excessive speeds.**

To turn the ATV, the rider must use the proper technique. Because this ATV has a solid rear axle, both rear wheels always turn at the same speed. This means that if the rear wheels are getting equal traction, the ATV will tend to move straight ahead. This is because the rear wheels will travel the same distance.

For the ATV to turn, the outside rear wheel must travel a greater distance than the inside rear wheel. To make this happen, the rider must create less traction for the inside wheel, allowing it to slip somewhat. This allows it to travel a shorter distance than the outside wheel. This happens even though both wheels are still turning at the same speed.

To turn the ATV, use the following technique :

- Turn the handlebars in the direction of the turn.
- Shift body weight slightly forward and support your weight on the outer footrest. This will reduce the load on the inside rear wheel, reducing its traction.
- Lean upper body into the turn.

### ⊙ AT HIGHER SPEEDS :

Use the same technique that you use for turning at low speeds, but lean farther into the turn. Natural turning forces (which can push the ATV to the outside of the turn) increase as speed increases. This means you must lean your upper body farther into the turn as you go faster. This prevents the ATV from tipping over to the outside of the turn. Remember, though, to keep your weight supported on the outer footrest.

If your ATV starts to tip while turning, lean your body farther into the turn while gradually reducing the throttle and making the turn wider, if possible.

## SKIDDING OR SLIDING

### **WARNING**

Skidding or sliding improperly can be hazardous.

You may lose control of your ATV, or regain traction unexpectedly, which may cause the ATV to overturn.

- Learn to safely control skidding or sliding by practicing at low speeds and on level, smooth terrain.
- On extremely slippery surfaces, such as ice, go slowly and be very cautious in order to reduce the chance of skidding or sliding out of control.

You may experience skidding or sliding when you are not braking. You may be able to overcome it by using the techniques listed below.

#### **If your front wheel skids :**

Gain front wheel traction by reducing the throttle opening and leaning your body weight slightly forward.

#### **If your rear wheel skids :**

If space permits, steer in the direction of the skid. Shift your body weight away from the skid slightly. Avoid using the throttle or brakes until you regain directional control of the ATV.

## OPERATION ON HILLS

### **WARNING**

Operating this ATV on excessively steep hills can be hazardous.

The ATV can overturn more easily on extremely steep hills than on level surfaces or small hills.

Never operate the ATV on hills too steep for the ATV or for your abilities. Practice on smaller hills before trying larger hills.

## ⦿ CLIMBING A HILL

### **WARNING**

**Climbing hills improperly can be hazardous.**

**Climbing hills improperly can cause loss of control or cause the ATV to overturn.**

- **Always follow the proper procedures for climbing hills as described in this section.**
- **Always check the terrain carefully before you start up any hill.**
- **Never climb hills with excessively slippery or loose surfaces.**
- **Shift your weight forward.**
- **Never open the throttle suddenly or make sudden gear changes. The ATV could flip over backwards.**
- **Never go over the top of any hill at high speed. An obstacle, a sharp drop, or another vehicle or person could be on the other side of the hill.**



To climb a hill with the ATV, follow the directions below.

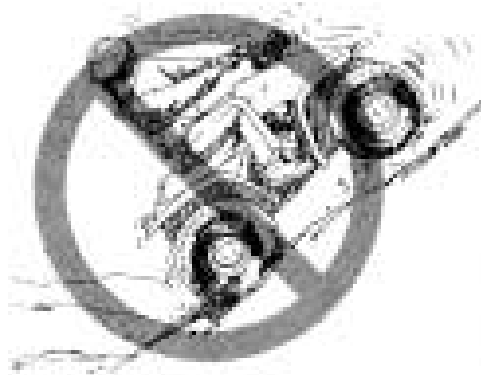
1. Speed up and maintain a steady speed before reaching the bottom of the hill. Shift down to increase approach speed, if necessary. Remember that you must ride at a steady speed all the way to the top of the hill.
2. Shift body weight forward by sliding forward on the seat. Lean slightly forward. For steep hills, stand on the footrests and lean out over the front wheel.
3. Maintain a steady speed while climbing the hill.
4. Slow down when you reach the top of the hill.

### **WARNING**

**Stalling, rolling backwards or improperly dismounting the ATV while climbing a hill can be hazardous.**

**The ATV could overturn if you do not climb a hill properly.**

**Use the proper gear and maintain a steady speed when climbing a hill. Always follow the proper procedures for climbing hills as described in this section.**



You may start to climb a hill and may be unable to make it to the top. If this happens, use the correct procedure described below to turn around to get back down the hill.

If you still have forward movement and enough space to turn around safely, follow these instructions.

1. Turn around on the hill before you lose forward speed. As you turn on the side of the hill, lean your body weight uphill.
2. Once you have turned around, ride down the hill as described in the DESCENDING A HILL section.

If you lose forward movement, or begin to roll backwards, follow these instructions.

1. Lean farther forward, uphill.
2. Apply the front brake to stop the ATV. Never apply the rear brake if the ATV has begun to roll backwards.
3. After the ATV has stopped, apply the rear brake as well as the front brake.
4. Set the parking brake and dismount to the left side while still leaning uphill.
5. Use one of the following procedures to turn the ATV around.
  - a. If you are able to, drag the rear end of the ATV around until the ATV points downhill. Stay on the uphill side of the ATV while dragging it around.
  - b. Turn the handlebars fully to the right. Stand on the uphill side of the ATV. Release the parking brake with the clutch lever and pump the hand brake to let the ATV roll slowly backwards. This will turn the ATV sideways to the hill. Reset the parking brake. Turn the handlebars to the right. Stay on the uphill side. Release the parking brake with the clutch lever and pump the hand brake to let the ATV slowly roll until it points downhill. Reset the parking brake.

6. Remount the ATV, apply the brakes, release the parking brake and ride down the hill as instructed in the DESCENDING A HILL section.

If the front brake does not slow the ATV, dismount to the side immediately.

## ⦿ DESCENDING A HILL

### **WARNING**

Going down a hill improperly can be hazardous.

Going down a hill improperly can cause loss of control or cause the ATV to overturn.

Always follow the proper procedures for going down hills as described in this section.

**OK**



To ride down a hill with the ATV, follow the instructions below.

1. Check the terrain carefully for any obstacles before you start down the hill.
2. Point the ATV straight downhill.
3. Transfer body weight to the rear by sliding back on the seat.
4. Shift the transmission into a low gear and ride down the hill slowly with the throttle released.
5. Apply the rear brake to control downhill speed.
6. Avoid going down a hill at an angle that would cause the ATV to lean sharply to one side. Go straight down the hill where possible.

## ⦿ TRAVERSING A SLOPE

### **WARNING**

Crossing hills or turning on hills improperly can be hazardous.

Crossing hills or turning on hills improperly can cause loss of control or cause the ATV to overturn.

Never attempt to turn the ATV around on any hill until you have mastered the turning technique as described in the **CLIMBING A HILL** section. Practice this technique on level ground. Be very careful when turning on any hill. Avoid crossing the side of a steep hill if possible.

**OK**



When traversing a slope, you should :

1. Lean your body uphill.
2. Steer slightly uphill, if necessary, to maintain a straight course.

## RIDING OVER OBSTACLES

### **WARNING**

**Improperly operating this ATV over obstacles can be hazardous.**

**Improperly crossing obstacles can cause loss of control or a collision. It can also cause the ATV to overturn.**

**Follow the procedure in this section carefully when crossing over obstacles.**

If you come to an obstacle that you cannot avoid, you may be able to cross over it using the following procedure.

1. With the obstacle straight in front of you, approach at walking speed.
2. Rise up slightly on the footrests.
3. Pull up on the handlebars and apply a little throttle as the front wheels reach the obstacle.
4. Lean forward and release the throttle after the front wheels have cleared the obstacle.
5. Return to your normal riding position after the rear wheels clear the obstacle.

Remember that some obstacles are too high for your ATV or for your abilities.

If you are not sure that you can safely cross over an obstacle, back up and ride around the obstacle.

## RIDING THROUGH WATER

### **WARNING**

**Operating this ATV through deep or fast flowing water can be hazardous.**

**The ATV tires may float, causing loss of traction and loss of control. This could lead to an accident.**

- **Never operate this ATV in fast flowing water or in water deeper than described in this section.**
- **Remember that wet brakes may have reduced stopping ability. Test your brakes after leaving the water. If necessary, apply them several times to let friction dry out the pads.**

You can ride the ATV through shallow water. Make sure it is not more than 30 cm (12 in) deep and is not moving fast. Choose a good place to cross before you ride through any water. Look for a spot where the banks are gently sloped on both sides and the bottom of the stream is hard.

If you are unfamiliar with the area, park the ATV and inspect the stream first to find a suitable spot for crossing. When crossing, operate the ATV at a slow, steady speed. Be careful not to damage banks when crossing.



## **CAUTION**

Operating the ATV in water, sand, or mud causes rapid brake wear.

**Excessive brake wear can cause the brakes to be less effective.**

**After repeated operation of the ATV in these conditions, bring it to your Hyosung dealer to have the brakes inspected and cleaned.**

## **RIDING IN COLD WEATHER**

### **PRE-RIDE INSPECTION**

Check that the throttle and all control levers move freely. Make sure that the footrests, shift lever, and rear brake pedal are free of ice or snow.

## **CAUTION**

**Using engine power to free up frozen wheels can damage your ATV.**

**Severe damage to the drive train may occur if you use engine power to free frozen wheels.**

**Before riding, manually move the ATV forward and backward to make certain that all wheels roll freely.**

With the transmission in neutral, move the ATV forward and backward to check that the wheels roll freely. If you cannot move the ATV, the tires may be frozen to the ground, or the brakes may be frozen to the wheels. If the tires are frozen to the ground, pour warm water around them to melt the ice. If the brakes are frozen, bring the ATV to a warmer area to thaw out the brakes.

## **CAUTION**

**Use of an automotive-size battery to jump-start an ATV can damage the ATV.**

**A high-amperage battery can damage the electrical system.**

**Use only the specified battery to start the engine.**

After the engine has warmed up, check the brakes. Do this inspection on level ground and do not exceed walking speed. Be sure to check the operation of both front and rear brakes. If the brakes do not work adequately, stop riding the ATV. Bring the ATV to a warmer area to allow the brakes to thaw out. After the brakes thaw, dry them by applying them several times while riding slowly. If the brakes do not regain full stopping power, have your local **Hyosung** dealer check them before you continue riding your ATV.

### **WARNING**

**Operating the ATV without a properly functioning brake system can be hazardous.**

**Wet or frozen brakes will increase stopping distance. This will increase your chance of having an accident.**

**Be sure to inspect the brakes before each use of the ATV in cold weather as described above.**

Any water that enters the brakes while you ride may freeze after you park your ATV. The frozen water can prevent the wheels from turning or the brakes from working. After riding through water, mud, snow, or slush it is important to dry the brakes before parking the ATV. To dry the brakes, apply them several times while riding slowly. Before your next ride, be sure to do a Pre-ride inspection as described earlier in this section.

## ⦿ **DRESSING FOR COLD WEATHER RIDING**

### **WARNING**

**Operating your ATV in cold weather without proper clothing can be hazardous.**

**Continued exposure to cold temperatures can lead to hypothermia. Hypothermia is a condition where your body's inner temperature drops low enough to cause injury or death.**

**Always dress for the worst weather conditions you might encounter. Be prepared for bad weather and ATV breakdowns.**

Riding in cold weather can be hazardous. At a temperature of  $-12^{\circ}\text{C}$  ( $10^{\circ}\text{F}$ ), the wind chill created by going just 15 km/h (9 mph) makes you as cold as if you were standing still at a temperature of  $-23^{\circ}\text{C}$  ( $-9^{\circ}\text{F}$ ). At this temperature, exposed flesh will freeze in just a few minutes.

Continued exposure to cold temperatures can also lead to hypothermia. Hypothermia occurs when your body's inner temperature drops. Symptoms include numbness in the extremities (hands, feet, arms, and legs), and shivering. Damp clothing contributes to hypothermia because cold water on your skin will drain heat from your body's core.

We strongly recommend that if you do any cold-weather riding, you familiarize yourself with the symptoms, treatment, and prevention of hypothermia. Information is available at libraries and through government agencies.

Plan your winter rides with safety and comfort in mind. Dress for the worst conditions you might encounter. Be prepared for bad weather and ATV breakdowns. Wear warm, water-resistant clothing such as thermal underwear, snowmobile suits, lined gloves and boots, and wool socks.

### **WARNING**

**Wearing loose clothing when riding your ATV can be hazardous.**

**Loose clothing, such as a long scarf or shawl, can get caught in an ATV's moving parts.**

**Never wear loose clothing when riding your ATV.**

## **◎ RIDING YOUR ATV ON SNOW AND ICE**

### **WARNING**

**Riding on snow-covered terrain without care can be hazardous.**

**The snow may be covering rocks, holes, ice or other hazards that can cause a loss of control.**

**Severe injury or death could occur if you lose control of the ATV.**

**Go slowly and be extra careful when riding on snow-covered terrain.**

**Always be alert to changing terrain conditions when operating the ATV.**

### **WARNING**

**Riding on a frozen lake or river can be hazardous.**

**Serious injury or death can occur if the ice breaks and you fall into the cold water.**

**Check with local authorities to verify the thickness of the ice and areas to avoid.**

## **WARNING**

Failure to use extra care when operating on slippery surfaces such as hard-packed snow and ice can be hazardous.

Failure to use extra care can cause loss of traction or loss of ATV control. This could result in an accident, including an overturn.

Do not operate on slippery surfaces until you have learned and practiced the skills necessary to control the ATV on such terrain.

Always use extra care on slippery surfaces. Avoid snow- or ice-covered hills whenever possible.

Practice riding your ATV in an open snow- or ice-covered area, at slow speeds, before heading out on snow- or ice-covered trails. Learn how your ATV responds to steering and braking on the type of terrain you will encounter on your ride.

Your eyes may be sensitive to sunlight when you ride over snow or ice on a bright, sunny day. Snow or ice reflects more light into your eyes than dirt or grass does. Tinted eye protection will reduce the amount of light reaching your eyes. Always use clear eye protection when riding at night. On overcast days, you may find it helpful to use yellow-tinted eye protection.

## **RIDING IN REVERSE**

## **WARNING**

Improperly riding this ATV in reverse can be hazardous.

You could hit an obstacle or person behind you, resulting in serious injury.

When you select reverse gear, make sure there are no obstacles or people behind you. When it is safe, back up slowly.

To engage reverse gear, follow these directions.

1. Stop the ATV completely and shift into neutral.
2. Squeeze the clutch lever and depress the rear brake pedal.
3. Turn the reverse lever clockwise and depress the gearshift lever twice.

## **N O T E**

- ***Depress the rear brake pedal and engage clutch partially if it is hard to shift into reverse.***
- ***Check that the reverse indicator lamp is lit after shifting into reverse.***

4. Look to make sure there is nothing in your way behind you.
5. Release the brake pedal. Slowly release the clutch lever and apply the throttle.

## **WARNING**

Sudden application of the throttle or making abrupt turns in reverse gear can be hazardous.

Throttle surges or abrupt turns could cause you to lose control of the ATV.

When you ride in reverse, go slowly and turn carefully.

## **ACCESSORY USE AND VEHICLE LOADING**

There are many types of accessories for sale. However, **Hyosung** can not have direct control over the quality or suitability of non-**Hyosung** accessories.

**Hyosung** can not test each accessory that is available. If you add the wrong accessories or misuse the vehicle with some accessories installed, it can make the ATV less safe to ride.

Use caution when choosing and installing accessories for your **Hyosung**.

Your **Hyosung** dealer may be able to help you choose accessories and install them correctly. The guidelines below should help you decide how to equip your ATV and how to use it correctly when you use accessories or carry cargo.

## **WARNING**

Operating this ATV with improper modifications can be hazardous.

Improper installation of accessories or modification of the vehicle may cause changes in handling which could lead to an accident.

Never modify the ATV with improper installation or use of improper accessories. All parts and accessories added to the ATV should be genuine **Hyosung** parts or their equivalent designed for use on this ATV. Install and use them according to their instructions. If you have any questions, contact your **Hyosung** dealer.

Hyosung dealers offer a variety of genuine Hyosung accessories for your ATV.

Please contact your Hyosung dealer for details.

### **Accessory Use and Vehicle Loading Guidelines.**

1. The combined weight of the rider, gear weight and any accessories or cargo must never exceed the ATV's load capacity of 150 kg (330.7 lbs).
2. Check accessory mounting brackets and other attachment hardware to make sure they provide a rigid, non-movable mount.
3. Accessories added to the handlebars of the machine should be as light as possible. The extra weight can cause the ATV to be harder to steer.
4. Do not add accessories or cargo which interfere with controls or other equipment.
5. Do not carry heavy or bulky cargo.
6. Distribute cargo weight evenly between the front and rear of the ATV as well as both sides of the ATV. Locate cargo weight as close to the center of the ATV as possible.
7. Secure your load well. Shifting weight can affect your ability to handle the vehicle safely.
8. Ride at slow speeds and avoid hills when carrying cargo. Carrying loads can affect the stability and handling of your ATV.
9. Allow enough stopping distance.  
Stopping distance increases when you carry loads. Use engine braking as much as possible.

## INSPECTION AND MAINTENANCE

### MAINTENANCE SCHEDULE

Perform maintenance according to time interval.

#### ■ ENGINE

Item \ Interval	Initial 1 month	Every 3 months	Every 6 months
Air cleaner element	—	Clean	—
Exhaust pipe nuts and muffler bolts ★	Tighten	Tighten	—
Valve clearance ★	Inspect	—	Inspect
Spark plug	—	—	Inspect
	Replace every 18 months		
Fuel hose ★	—	Inspect	—
	Replace every 4 years		
Engine oil and oil filter	Replace	—	Replace
Engine oil hoses	Inspect	Inspect	—
Spark arrester	—	—	Clean
Throttle cable	Inspect	Inspect	—
Idle speed ★	Inspect	Inspect	—
Clutch ★	Inspect	—	Inspect
Engine coolant ★	Replace every 2 years		
Radiator hoses ★	—	—	Inspect
	Replace every 4 years		

#### ■ CHASSIS

Item \ Interval	Initial 1 month	Every 3 months	Every 6 months
Drive chain ★	Inspect every time before riding		
Brakes ★	Inspect	Inspect	—
Brake hose ★	—	—	Inspect
	Replace every 4 years		
Brake fluid ★	—	Inspect	—
	Replace every 2 years		
Tires	—	Inspect	—
Steering ★	Inspect	Inspect	—
Suspensions ★	—	—	Inspect
Front and Rear wheel set nuts	Tighten every time before riding		
Rear axle nut and lock nut ★	Tighten	Tighten	—
Chassis nuts and bolts ★	Tighten	Tighten	—
General lubrication	Lubricate	Lubricate	—

## N O T E

★ = Ask your Hyosung dealer or qualified mechanic to do the maintenance items marked.

It is very important to inspect and maintain your ATV regularly. Follow the guidelines in the chart.

The intervals between periodic services in months are shown.

At the end of each interval, be sure to perform the maintenance listed.

## **WARNING**

**Improper maintenance or failure to perform recommended maintenance can be hazardous.**

**If you perform improper maintenance or do not maintain your ATV, you may have an accident.**

**Keep your ATV in good condition.**

**Ask your Hyosung dealer or a qualified mechanic to do the maintenance items marked with an 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, ask your Hyosung dealer or a qualified mechanic to do the maintenance.**

## **CAUTION**

**If you use your ATV under severe conditions, it will need maintenance more often than shown in the chart.**

**Operating your ATV under severe conditions causes more wear on your ATV. Severe conditions include operating under frequent full throttle, or in dusty, wet, sandy, or muddy areas. These conditions can cause the ATV to wear more quickly.**

**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.**

## **CAUTION**

**Using poor quality replacement parts can damage your ATV.**

**Poorly-made replacement parts can cause your ATV to wear more quickly and may shorten its useful life.**

**When replacing parts on your ATV, use only genuine Hyosung replacement parts or their equivalent.**

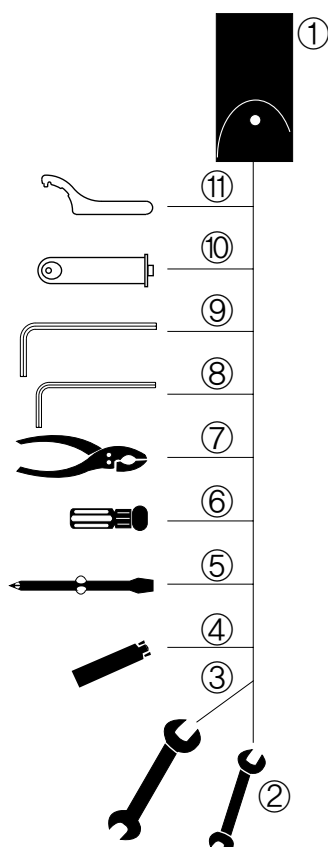


## TOOLS

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

The tool kit consists of the following items.

NO.	NAME
1	Tool bag
2	10 × 12 mm open end spanner
3	14 × 17 mm open end spanner
4	Spark plug wrench
5	Combination screw driver
6	Screw driver handle
7	Pliers
8	Hexagon wrench 4 mm
9	Hexagon wrench 6 mm
10	Air pressure gauge
11	Clamp wrench



## BATTERY

### ⊙ INSPECTION OF BATTERY

#### SOLUTION LEVEL

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

It is not necessary to inspect or supplement battery fluid.

The battery is located under the seat.


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

### ⚠ CAUTION

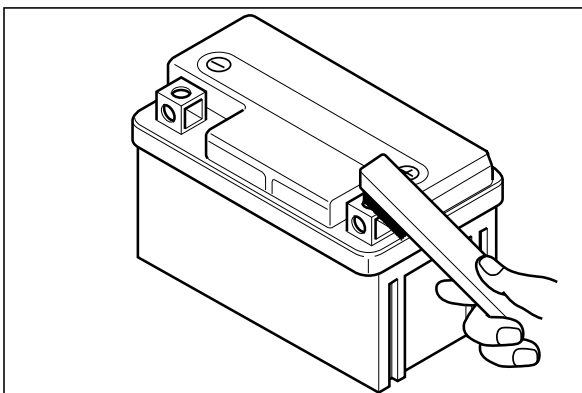
- Do not remove absolutely airtight cover as airtight type battery.
- Keep after separate at the ATV for the minimum of self electric discharge and electric leakage when don't use for a long time. Remove the negative (–) terminal when keep intact at the ATV.

### ⊙ CLEAN OF BATTERY TERMINAL

Clean the battery terminal when it is dusty or rusted.

1. Set the ignition switch “” (OFF) position.
2. Remove the seat, disconnect the negative (–) battery wire first, then disconnect the positive (+) battery wire. Remove the battery.
3. Clean the terminal.  
If there is white dust, clean it with warm water.
4. 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.




## SPARK PLUG

Your ATV comes equipped with a CR8E spark plug. To determine if the standard spark plug is right for your usage, check the color of the plug's porcelain center electrode insulator after ATV operation. A light brown color indicates that the plug is correct.

A white or dark insulator indicates that the engine may need adjustment, or another plug type may be needed.

Consult your Hyosung dealer if your plug insulator is not a light brown color.

### **⚠ CAUTION**

- **Hydrogen gas produced by batteries can be hazardous. Batteries produce flammable hydrogen gas which can explode if exposed to flames or sparks.**
- **Keep the battery away from fires or sparks.**  
**Never smoke when working near the battery.**
- **When disconnecting the battery wire, be sure to remove the negative (–) battery wire first with the ignition switch “” (OFF) position, then remove the positive (+) battery wire.**  
**When reinstalling the battery, be sure to connect the positive (+) battery wire first, then connect the negative (–) battery wire.**
- **Fasten certainly the battery wires.**
- **Reversing the battery lead wires can harm your ATV.**  
**Reversing the battery lead wires can damage the charging system and battery.**  
**The red lead must go to the positive (+) terminal and the black (or black with white tracer) lead must go to the negative (–) terminal.**
- **Never charge a battery while still in the machine as damage may result to the battery or regulator / rectifier.**

### **⚠ CAUTION**

**Failure to use the proper spark plug can damage your ATV.**

**An improper spark plug may have an incorrect fit or heat range for your engine. This may cause severe engine damage which may not be covered under warranty.**

**Use one of the spark plugs listed next or equivalents. Consult your Hyosung dealer if you are not sure which spark plug is correct for your type of ATV usage.**

PLUG REPLACEMENT GUIDE	
Hotter type	CR7E
Standard type	CR8E
Colder type	CR9E

## NOTE

*If the above-named plugs are not available, consult your Hyosung dealer or a qualified mechanic.*

To install a spark plug, turn it in as far as possible with your fingers, tighten it with a wrench.

## CAUTION

Improper installation of the spark plug can damage your ATV.

An overly tight or cross threaded plug will damage the aluminum threads of the cylinder head.

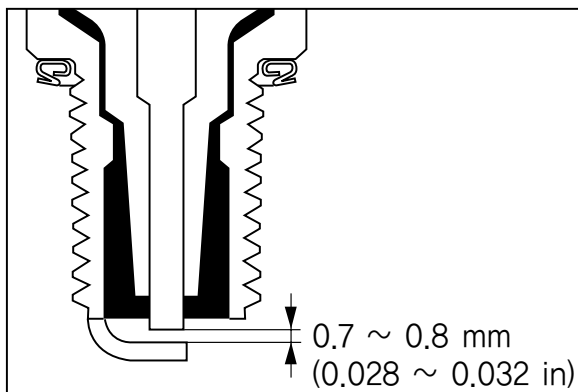
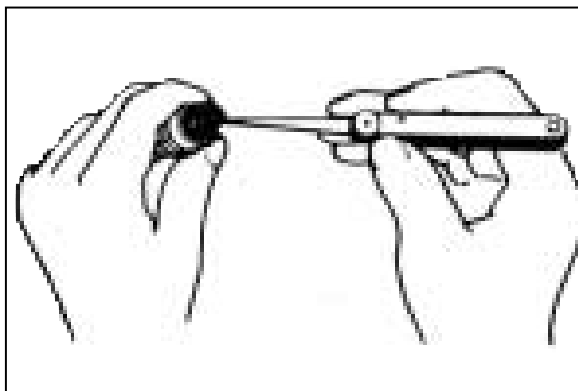
Carefully turn the spark plug by hand into the treads. If the spark plug is new, tighten it with a wrench about 1/2 turn past finger tight. If you are reusing the old spark plug, tighten it with a wrench about 1/8 turn past finger tight.

## CAUTION

Dirt can damage your ATV if it enters an open spark plug hole.

Dirt can damage engine parts that move.

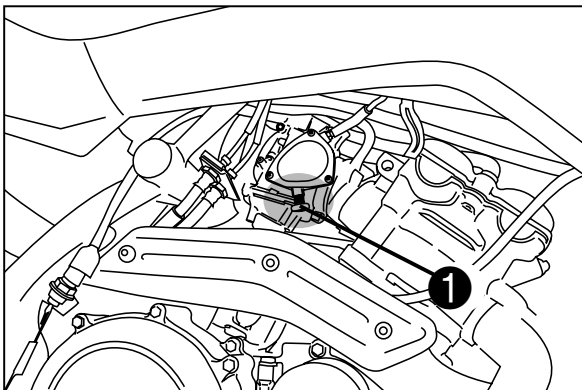
Cover the spark plug hole while the spark plug is out of the hole.



To maintain a hot, strong spark, keep the plug free of carbon. Remove carbon from the plug and adjust the gap to 0.7 ~ 0.8 mm (0.028 ~ 0.032 in) for good ignition. Use a thickness gauge to check the gap.

## IDLE SPEED ADJUSTMENT

To adjust the idle speed properly, you need an engine tachometer. If you do not have one, ask your Hyosung dealer to perform this adjustment.



To adjust the idle speed :

1. Start the engine and warm it up.
2. Turn the throttle stop screw ① in or out so that the engine idles at 1,300 ~ 1,500 rpm.

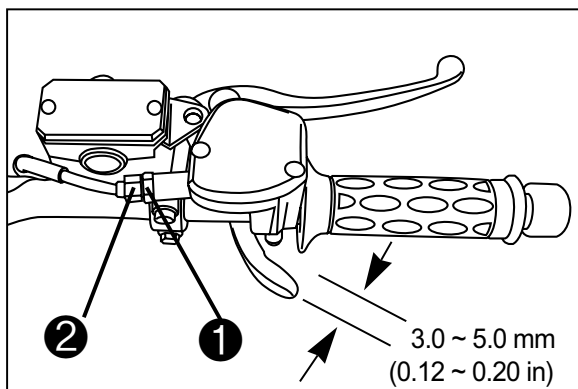
### **WARNING**

**Improper adjustment of the idle speed can be hazardous.**

**An idle that is too high can cause the ATV to lurch forward when you shift to first gear. This may cause an accident. Excessive engine wear may also result if idle speed is adjusted improperly or when the engine is not fully warmed up.**

**Adjust the idle to the correct speed. Make sure the engine is fully warm before adjusting the idle speed.**

## THROTTLE CABLE ADJUSTMENT



Measure the throttle cable play by pressing the throttle lever.

The throttle lever should have 3.0 ~ 5.0 mm (0.12 ~ 0.20 in) play.

To adjust the throttle cable play :

1. Loosen the lock nut ① .
2. Turn the adjuster ② in or out to obtain the correct play.
3. Tighten the lock nut ① .
4. Recheck the throttle lever play.

Readjust it if it is not within the correct limits.

### **WARNING**

**Operating the ATV with an inadequate throttle cable play can be hazardous.**

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

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

## FUEL HOSE

Replace the fuel hose every 4 years, even if it looks OK. Damage from aging may not always be visible.

## ENGINE OIL

Long engine life depends much on the selection of a quality oil, oil amount and the periodic changing of the oil. Daily oil level checks and periodic changes are two of the most important maintenance to be performed.

### ⊙ OIL LEVEL CHECK

The oil is pumped up to the oil tank while the engine is running. The engine oil in the oil tank decreases when the engine is left unused. The engine oil in the oil tank drips to the crankcase.

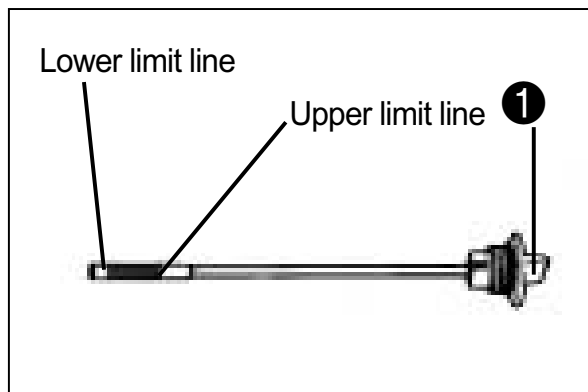
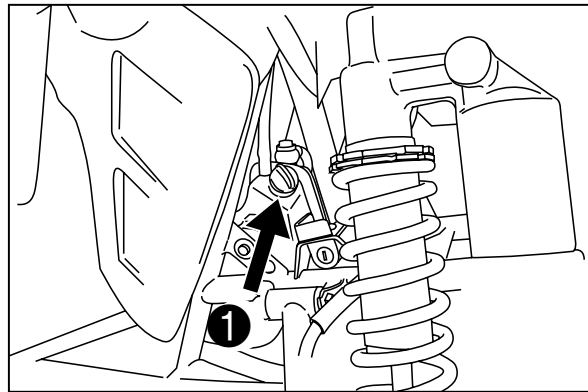
To check the oil level, follow the procedure below :

1. Place the ATV on the level ground.
2. Start the engine and allow it to idle for three minutes.

## N O T E

***When starting the engine, follow the WARNING and CAUTION in ENGINE STARTING PROCEDURE section.***

3. Stop the engine and wait three minutes.



4. Remove the oil level gauge①.
5. Wipe the oil from the oil level gauge using a clean rag.
6. Reinsert the oil level gauge until the threads touch filler neck, but do not screw the oil level gauge in.

## N O T E

***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.***

7. Draw out the oil level gauge and check the oil level. The level found on the oil level gauge should be between "Lower" and "Upper" limit lines. If the oil level is below the "Lower" limit line, add fresh oil into the filler hole until the oil level reaches the "Upper" limit line.

## **⚠ CAUTION**

**Operating the ATV with an incorrect amount of oil can damage your ATV.**

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

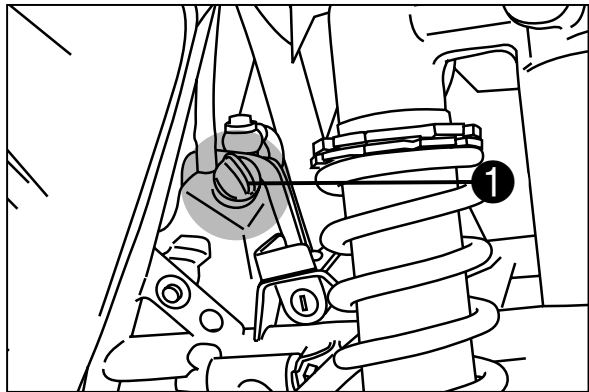
**Place the ATV on level ground.  
Check the oil level with the engine oil level gauge before each use of the ATV. Be sure the engine oil level is always above the “Lower” limit line and not higher than the “Upper” limit line.**

## **⊙ ENGINE OIL AND FILTER CHANGE**

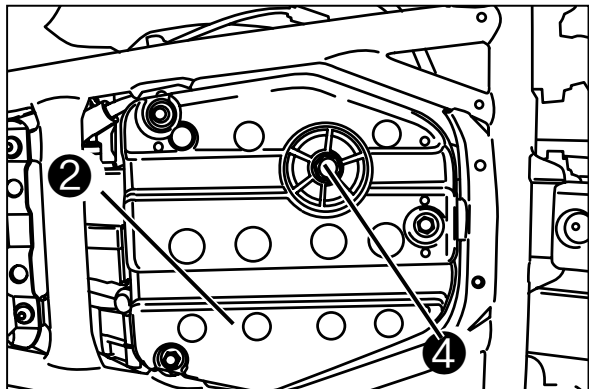
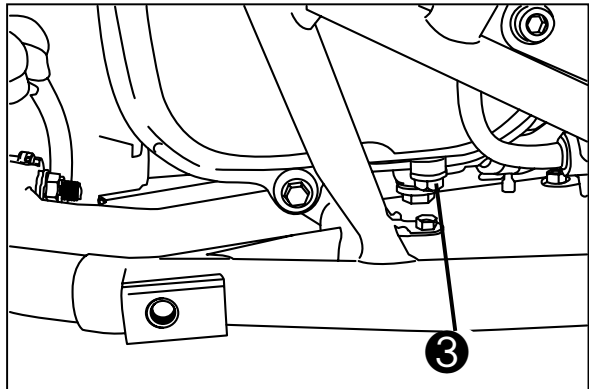
The oil should always be changed when the engine is warm so that the oil will drain thoroughly from the engine.

The procedure is as follows :

1. Place the ATV on the level ground.



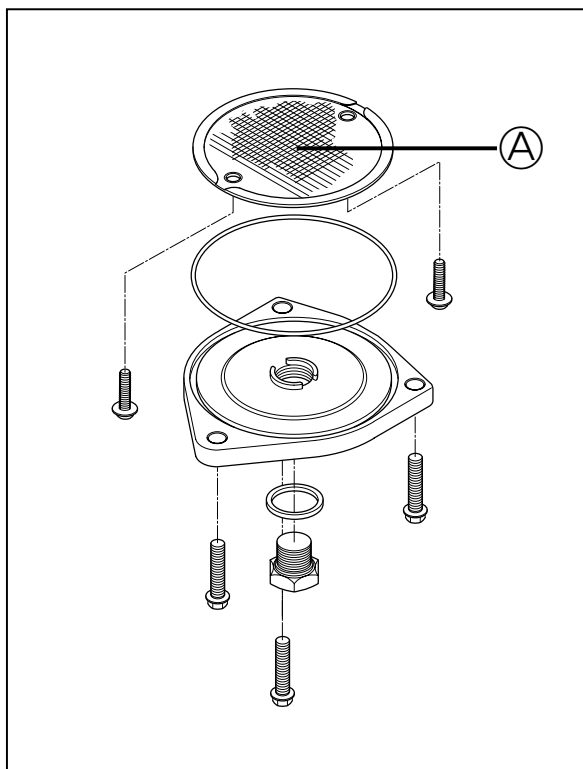
2. Remove the oil level gauge ① and engine oil outer cover of crankcase.



3. Remove the under cover② .
4. Place drain pans under the oil tank drain plug③ , and the crankcase drain plug④ .
5. Drain the engine oil from the oil tank by removing the oil tank drain plug③ .

## CAUTION

Necessarily, confirm and clean the oil strainer  when replace the Engine oil (specially, when first replacement).



## 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.

## *N O T E*

*Recycle or properly dispose of used oil and solvent.*

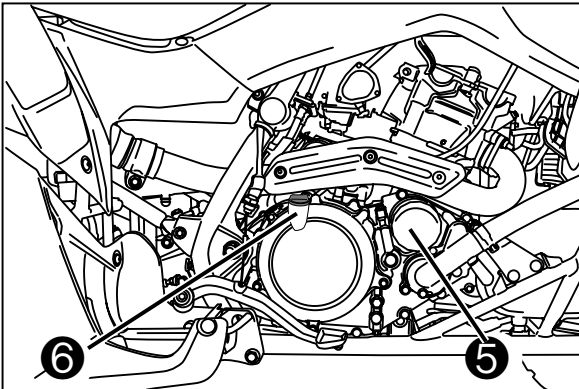
6. Drain the engine oil from the crankcase by removing the crankcase drain plug④ .

## WARNING

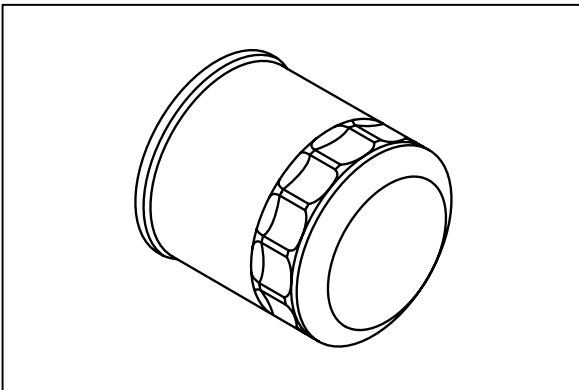
- The engine oil temperature may be high enough to burn you when the drain plug is loosened. Wait until the drain plug is cool enough to touch with bare hands before draining oil.
- Do not touch the hot muffler, or the hot muffler can burn you.



7. Reinstall the oil tank drain plug ③, and the crankcase drain plug ④ securely, but do not overtighten them.



8. Loosen the oil filter ⑤ counter-clockwise and remove it with a filter wrench of proper size.
9. Wipe off the mounting surface on the engine where the new oil filter will be seated with a clean rag.



10. Smear a little engine oil around the rubber gasket of the new oil filter.

### **⚠ CAUTION**

When replacing the oil filter, it is highly recommended that you use a genuine HYOSUNG oil filter designed for your ATV, as other filters may have different design and thread specifications which could cause engine damage or oil leaks.

11. Screw on the new oil filter by hand until the filter gasket contacts the mounting surface (a small resistance will be felt).

### **⚠ CAUTION**

To tighten the oil filter properly, it is important to accurately identify the position at which the oil filter gasket first contacts the mounting surface.

12. Pour fresh oil through the filler hole of the oil tank and the filler hole of outer cover ⑥. Approximately 2,600 ml of oil will be required.

### **N O T E**

*Approximately 2,500 ml of oil will be required when changing oil only without replacing the oil filter.*

13. Install the oil level gauge of the oil tank and the outer cover of crankcase.

### **⚠ CAUTION**

Failure to use the correct oil can damage your ATV.

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

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



14. Start the engine and allow it idle for a few minutes. Check to see that no oil is leaking from the oil filter and drain plugs.
15. Check the oil level according to Oil Level Check procedure.

### **CAUTION**

**Oil leaks from around the oil filter or drain plugs indicate incorrect installation or gasket damage. If you find any leaks or are not sure that the oil filter has been properly tightened, have the ATV inspected by your Hyosung dealer or qualified mechanic.**

## **AIR CLEANER**

The air cleaner element must be kept clean to provide good engine power and gas mileage. If you use your ATV under normal, low-stress conditions, you should service the air cleaner at the intervals specified. If you ride in dusty, wet, or muddy conditions, you will need to inspect the air cleaner element much more frequently.

Use the following procedure to remove the element and inspect it.

### **WARNING**

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

**A flame can spit back from the carburetor to the air intake box without the air cleaner element.**

**Severe engine damage can also occur if dirt enters the engine due to running the engine without the air cleaner element.**

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

## **⚠ CAUTION**

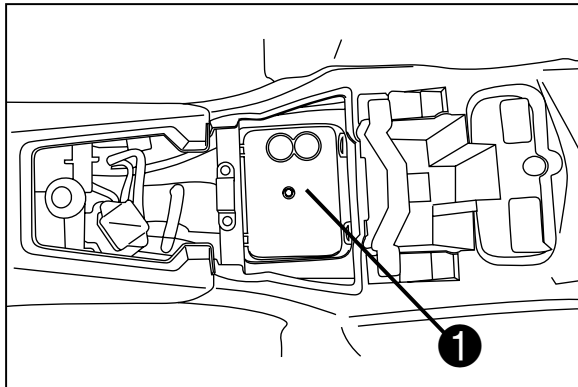
Failure to inspect the air cleaner element frequently if the ATV is used in dusty, wet, or muddy conditions can damage your ATV.

The air cleaner element can become clogged under these conditions, and engine damage may result.

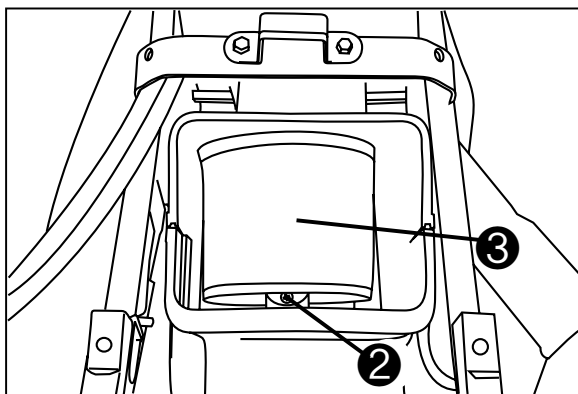
Always check the air cleaner element after riding in severe conditions. Clean or replace the element as necessary. If water gets in the air cleaner case, immediately clean the element and the inside of the case.

## **⊙ REMOVING THE ELEMENT**

1. Remove the seat.

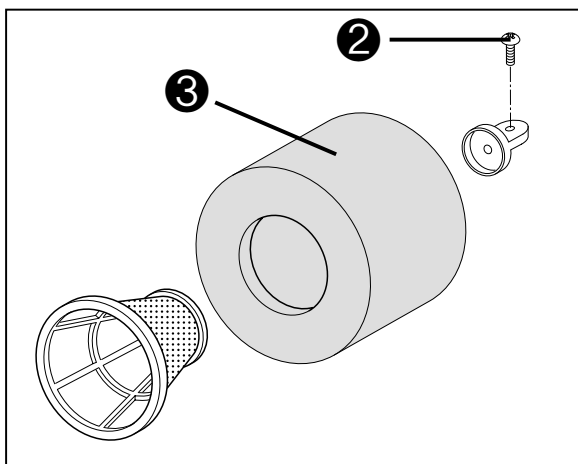


2. Unhook the hooks and take off the air cleaner case cover ①.



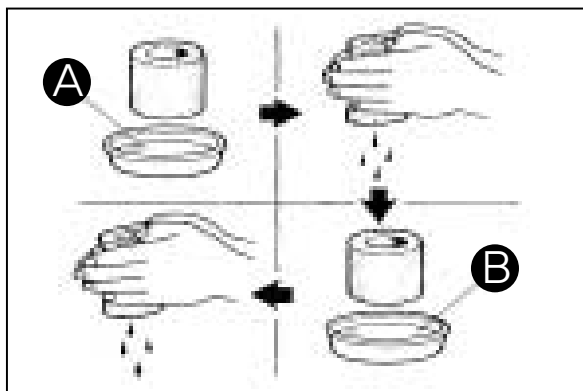
3. Remove the screw ②, then remove the element assembly ③.

4. Pull out the foam element from the element frame.

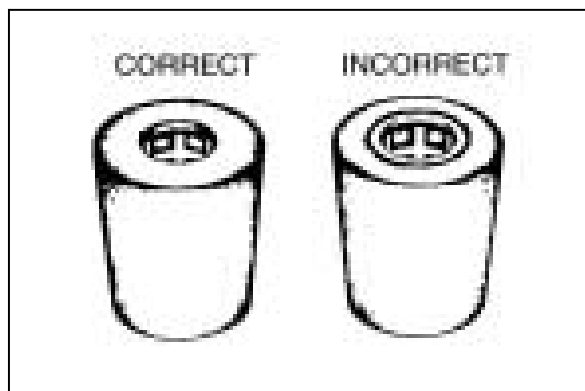


## ⦿ WASHING THE ELEMENT

Wash the element as follows :



1. Fill a washing pan of a proper size with non-flammable cleaning solvent ①. Immerse the element in the cleaning solvent and wash it clean.
2. Squeeze the cleaning solvent out of the washed element by pressing it between the palms of both hands : do not twist or wring the element or it will develop tears.
3. Immerse the element in HYOSUNG genuine oil ② and squeeze the oil out of the element leaving it slightly wet with oil.
4. Clean any dirt or debris from inside the air cleaner case.  
Be sure no dirt enters the carburetor.



5. Reinstall the cleaned element in reverse order of removal.  
Be sure that the element is securely in position and is properly sealed.

## ⚠ CAUTION

Before and during the cleaning operation, inspect the element for tears.

A torn element must be replaced.

Be sure position the element snugly and correctly, so that no incoming air will bypass it.

Remember, rapid wear of piston rings and cylinder bore is often caused by a defective or poorly fitted element.

## ⚠ CAUTION

- Don't use the cleaning solvent whose flash point is low when cleaning the element.
- Assemble the element completely or damage severely the engine.
- Be careful not to allow water to go inside the air cleaner element.

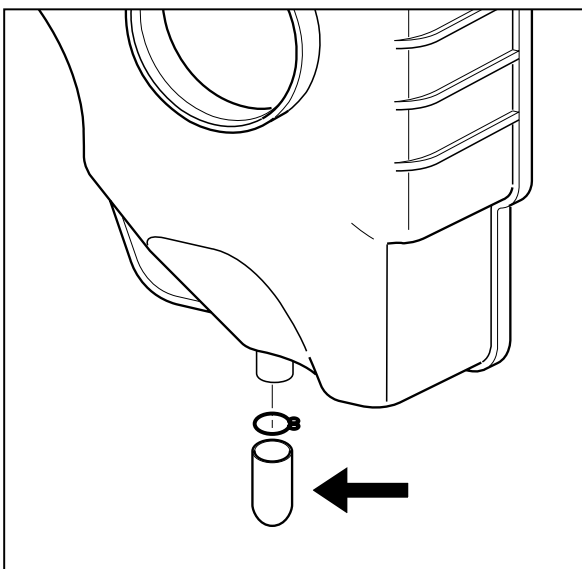
## ⚠ CAUTION

- When the assembly of air cleaner element is not completely done, dusts can go inside and damage severely engine.
- Be careful not to allow water to go into the element while washing.

## ⚠ CAUTION

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

## AIR CLEANER DRAIN CAP



Periodically check the drain cap shown by the arrow to see if any gasoline or oil has accumulated. If you notice any gasoline or oil, remove the drain cap, drain the gasoline or oil into a suitable container, and replace the cap.

### **WARNING**

Failure to properly dispose of the drained oil or gasoline can be hazardous.

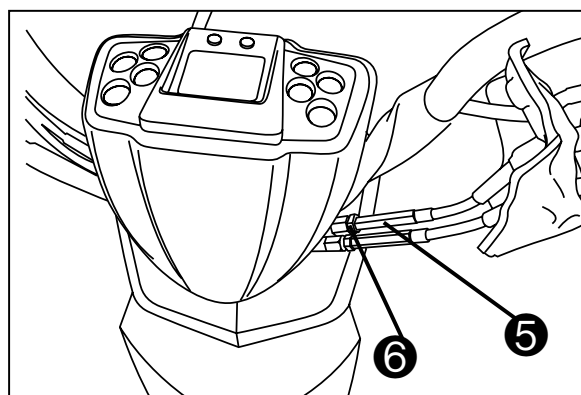
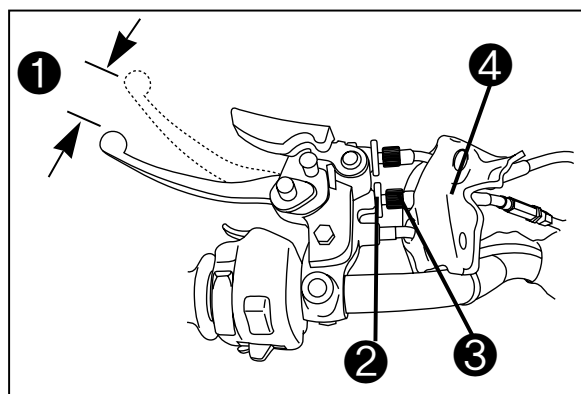
Oil and gasoline are flammable and are harmful if swallowed.

Be sure to drain the fluid into a suitable container and immediately dispose of it properly.

## CLUTCH ADJUSTMENT

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

The cable play should be 10 ~ 15 mm (0.4 ~ 0.6 in) as measured at the clutch lever holder before the clutch begins to disengage.



- ① The clutch lever play
- ② The clutch lever adjuster lock nut
- ③ The clutch lever adjuster
- ④ The rubber boot
- ⑤ The clutch cable adjuster
- ⑥ The clutch cable adjuster lock nut

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

## ⊙ CLUTCH CABLE ADJUSTMENT

- A basis adjustment be allowed by the clutch lever adjuster③ .
- Loosen the clutch lever adjuster lock nut ② and turn the clutch lever adjuster③ in or out to provide the specified play.
- After adjustment, tighten the lock nut ② and cover the rubber boot④ .
- If can't adjust by the adjuster ③ , loosen the clutch cable adjuster lock nut⑥ .
- Turn the clutch cable adjuster⑤ in or out to provide the specified play.
- After adjustment, tighten the clutch cable adjuster lock nut⑥ .
- The clutch cable should be lubricated with a light weight oil whenever it is adjusted.

<b>Clutch cable play①</b>	10 ~ 15 mm (0.4 ~ 0.6 in)
---------------------------	---------------------------

## DRIVE CHAIN

The condition and adjustment of the drive chain should be checked before each use of the ATV. Always follow the guidelines below for inspecting and servicing the chain.

### **WARNING**

**Failure to maintain the chain properly before each ride can be hazardous.**

**Riding with the chain in poor condition can lead to an accident.**

**Be sure to inspect, adjust and maintain the chain before each ride, according to these guidelines.**

We recommend that you take your ATV to an authorized **Hyosung** dealer if the drive chain needs replacing.

## ⊙ INSPECTING THE DRIVE CHAIN

When inspecting the chain, look for the following :

- Loose pins
- Damaged rollers
- Dry or rusted links
- Kinked or binding links
- Excessive wear
- Improper chain adjustment

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

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

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

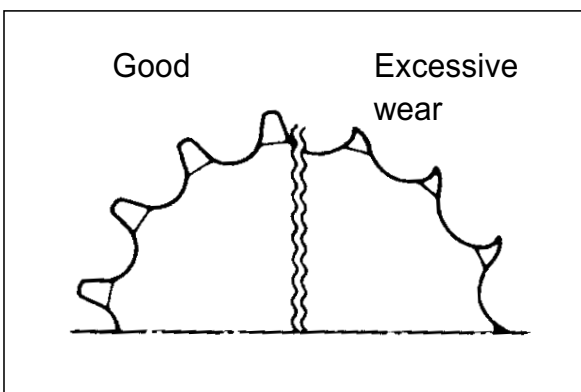
Inspect the sprockets for the following :

- Excessively worn teeth
- Broken or damaged teeth
- Loose sprocket mounting nut(s)

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

### **N O T E**

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



## ⊙ DRIVE CHAIN CLEANING AND OILING

Clean and oil the chain periodically, as follows :

1. Wash the chain with kerosene.

If the chain tends to rust, the interval must be shortened.

Kerosene will provide some lubrication and clean the chain.

### **⚠ 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.**

**Dispose of used kerosene properly. If swallowed, do induce vomiting. Call a physician immediately.**

### **⚠ CAUTION**

**Cleaning the chain with gasoline or other commercial cleaning solvents can damage your ATV.**

**These fluids can damage the “O-rings” and ruin the chain.**

**Use only kerosene to clean the drive chain.**

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

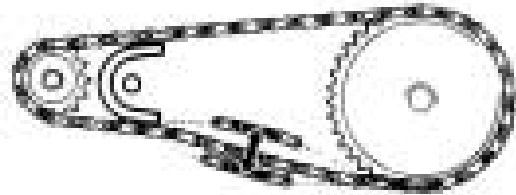
## **⚠ CAUTION**

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

**Your ATV’s chain contains “O-rings” which can be damaged by the solvents and additives in some types of drive chain lubricant.**

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

## **⊙ DRIVE CHAIN ADJUSTMENT**



30 ~ 40 mm  
(1.2 ~ 1.6 in)

Adjust the drive chain slack in the following manner until it has 30 ~ 40 mm (1.2 ~ 1.6 in) of slack at the mid point between the chain buffer and the rear sprocket.

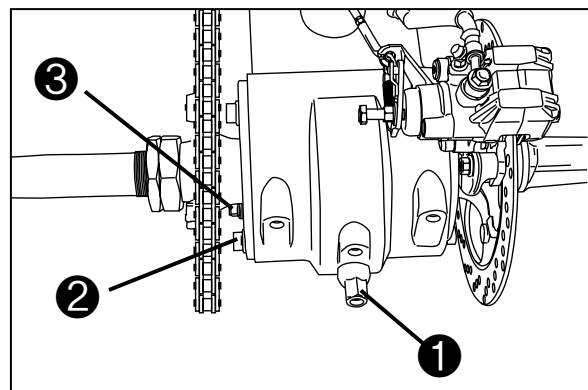
## **⚠ WARNING**

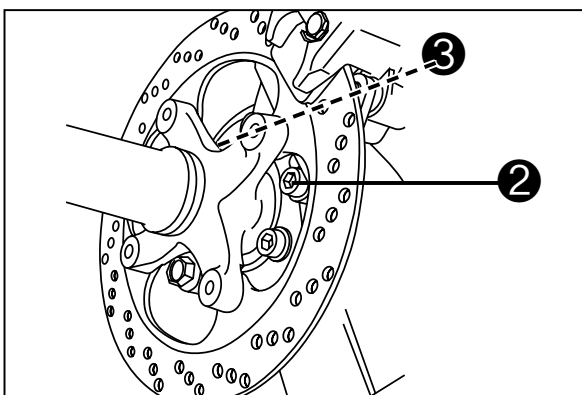
**Failure to inspect the drive chain slack before each use of the ATV could be hazardous.**

**Too much chain slack could cause the chain to come off the sprockets, resulting in an accident or serious damage to the ATV.**

**Inspect the drive chain slack before each use.**

To adjust the drive chain, follow the procedure below :





1. Loosen the two wrench bolts ② and two nuts ③.
2. Turn the adjuster ① until the chain has 30 ~ 40 mm (1.2 ~ 1.6 in) of slack halfway between the chain buffer and rear sprocket.
3. Retighten the wrench bolts ② and nuts ③ securely.
4. Recheck the chain slack after tightening and readjust if necessary.

## ! WARNING

**Improper drive chain adjustment and bolts and nuts tightening can be hazardous.**

**Failure to adjust the drive chain and failure to torque bolts and nuts properly could lead to an accident.**

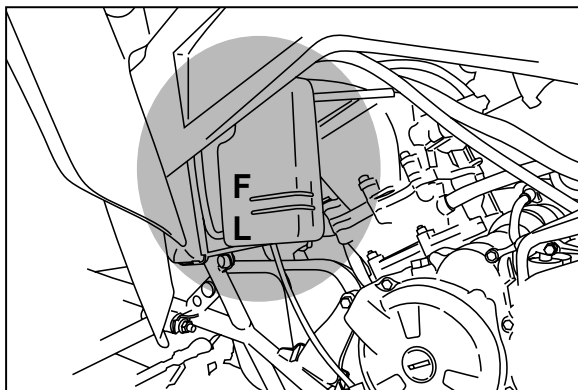
- Adjust the drive chain as described in this section.
- Torque bolts and nuts to the proper specifications. If you are not sure of the proper procedure, have your authorized Hyosung dealer or qualified mechanic do this.

## TIGHTENING TORQUE

REAR AXLE HOUSING WRENCH BOLT ②	40 ~ 60 N · m (4.0 ~ 6.0 kgf · m)
REAR AXLE HOUSING NUT ③	70 ~ 100 N · m (7.0 ~ 10.0 kgf · m)

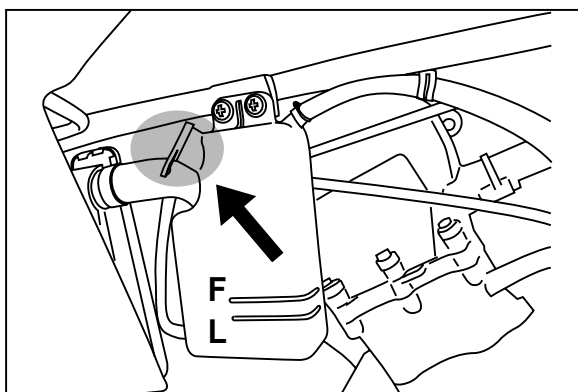
## COOLANT

### ⦿ 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 ATV horizontally. 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.



Remove the filler cap and add properly mixed coolant through the filler hole until it reaches the "F" line.

Refer to the FUEL, ENGINE OIL AND COOLANT RECOMMENDATION section (12 page).





## 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 1.4 ℓ of coolant will be required when filling the radiator and reservoir tank.*



## 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.

## TIRES

This ATV is equipped with low pressure tubeless tires of the size and type listed below :

### ■ ON-ROAD type & OFF-ROAD type

	Front	Rear
Size	21 × 7 / 10	20 × 11 / 9

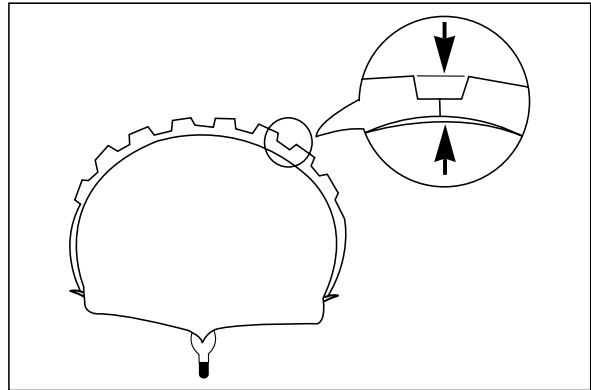
### WARNING

Operating this ATV 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 ATV.

Always use the size tires specified.  
Always maintain proper tire pressure as described in this section.

## ⦿ TIRE TREAD CONDITION



### WARNING

The use of very worn tires can be hazardous.

The traction of the ATV will be decreased. This increases your risk of having an accident.

Replace the front and rear tires when the depth on the tread is 4.0 mm (0.16 in) or less.

## ◎ TIRE PRESSURE

### ■ ON-ROAD type & OFF-ROAD type

COLD TIRE PRESSURE		
	ONE PERSON	TWO PERSONS
FRONT	0.3 kgf/cm <sup>2</sup> 30 kPa 4.4 psi	0.35 kgf/cm <sup>2</sup> 35 kPa 4.9 psi
REAR	0.3 kgf/cm <sup>2</sup> 30 kPa 4.4 psi	0.35 kgf/cm <sup>2</sup> 35 kPa 4.9 psi

A low pressure gauge is provided in the tool kit under the seat, so you can measure the air pressure in your ATV tires. Check the air pressure in all tires before each use of the ATV.

Improper air pressure can affect handling, steering response, traction, tire life and rider comfort. Be sure that the tires are inflated to the pressures shown above. Tire pressure should only be measured or adjusted when the tires are cold, or misleading measurements can result.

### WARNING

**Overfilling the tires can be hazardous.**

**If you put too much air into a tire, the tire may burst, causing severe injury.**

**Check the air pressure from time to time while inflating the tire gradually, until the specified pressure is obtained.**

## ◎ TIRE REPLACEMENT

Your ATV has low-pressure tubeless tires. Air is sealed by the contact surfaces of the inner wheel rim and the tire bead. If either the inner wheel rim or tire bead is damaged, air may leak.

Be extremely careful not to damage these sections when replacing tires.

It is very important to use the proper tools when repairing or replacing tires to prevent damage to the tire bead or wheel rims. Have this work done by your **Hyosung** dealer or a qualified tire repair station.

When breaking the tire bead loose from the wheel, be extremely careful not to damage the inner wheel surface or the tire bead.

### ● ON-ROAD type

Make sure that the arrow mark (↶) on the front and rear tire sidewall faces tire rotation direction.

### WARNING

**Using tires that have been installed incorrectly can be hazardous.**

**The ATV may have unusual handling if the tires are installed incorrectly.**

**The tires are intended to rotate in a specific direction, as indicated by the arrows marks on the sidewall of each tire. Install tires so they rotate in the proper direction.**

## ● TUBELESS TIRE REPAIR

Should a leak or flat tire occur due to a puncture, the tire may be repaired using a plug type patch. If the damage is from a cut, or if the puncture cannot be repaired using a plug, the tire should be replaced. When operating your ATV in areas where transportation or service facilities are not readily available, it is strongly recommended that you bring a plug type repair kit and a tire pump with you.

## BRAKES

This ATV has front and rear disk brakes.

### **WARNING**

**Failure to properly inspect and maintain your ATV's 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 ATV according to the INSPECTION BEFORE RIDING section. Always maintain your brakes according to the MAINTENANCE SCHEDULE.**

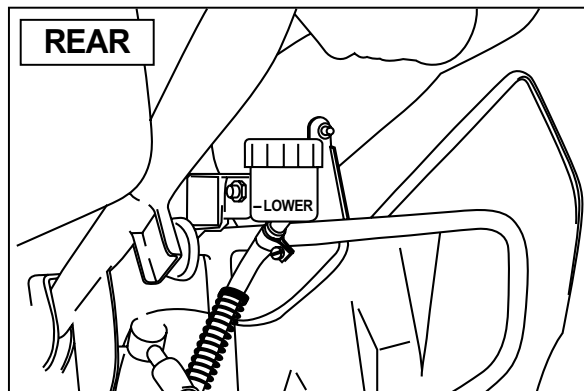
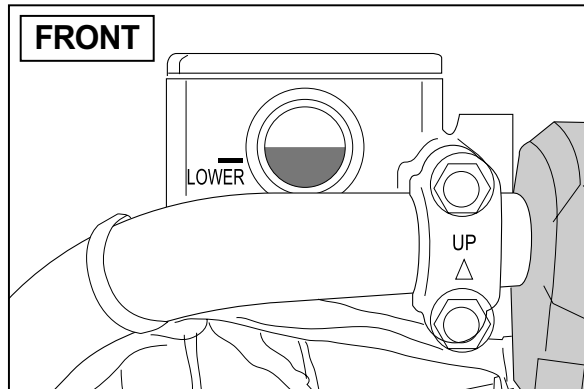
### **WARNING**

**Operating the ATV in harsh conditions 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 ATV under these conditions, the brakes must be inspected more often than recommended in the MAINTENANCE SCHEDULE.**

## ⦿ BRAKE FLUID



Be sure to check the brake fluid level in the front and rear brake fluid reservoirs.

If the level in either brake fluid reservoir is below the lower mark, inspect for brake pad wear and leaks.

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

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

Replenishing the brake fluid reservoir to considered normal periodic maintenance.

### **WARNING**

Brake fluid is harmful or fatal if swallowed, and farmful if it comes in contact with skin or eyes.

If swallowed, do induce vomiting. Immediately contact a poison control center or a physician. If brake fluid 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.

### **WARNING**

Failure to use proper brake fluid can be hazardous.

The use of any fluid except DOT4 brake fluid from a sealed container can damage the brake system and lead to an accident.

Use only DOT4 brake fluid from a sealed container. Never use or mix with different types of brake fluid.

## **WARNING**

Failure to keep the brake fluid reservoir full can be hazardous.

The brakes may not work correctly without the proper amount of brake fluid. This could lead to an accident.

Inspect the brake fluid level before each use. If there is frequent loss of fluid, take your ATV to a Hyosung dealer for inspection.

## **CAUTION**

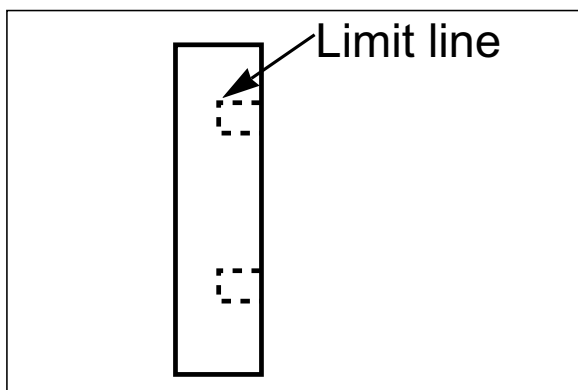
Spilled brake fluid can damage your ATV.

Brake fluid can damage painted surfaces and plastic parts.

Be careful not to spill any fluid when filling the brake fluid reservoir. Wipe spilled up immediately.

## ⦿ **BRAKE PADS**

Inspect the brake pads as follows :



1. Inspect the brake pads to see if they are worn down to the grooved wear limit line.
2. If you find that the pads are worn to the grooved wear limit line, bring the ATV to your authorized Hyosung dealer to have the brake pads replaced.

## **N O T E**

*Adjust parking brake after replacing the rear brake pads.*

## **WARNING**

Failure to maintain the brake pads and replace them when recommended can be hazardous.

Riding with unevenly worn brake pads will increase your chances of having an accident.

If you need to replace brake pads, have your Hyosung dealer do this work. Inspect and maintain the brake pads as recommended.

## **WARNING**

Riding this ATV after brake system repair or brake lever / pedal replacement without pumping the brake lever or pedal can be hazardous.

If you do not pump the brake lever and pedal before starting, you can not get enough braking performance and may result in an accident.

Pump the brake lever and pedal several times until brake pads are pressed against the brake disks and proper lever and pedal stroke and firm feel are restored.

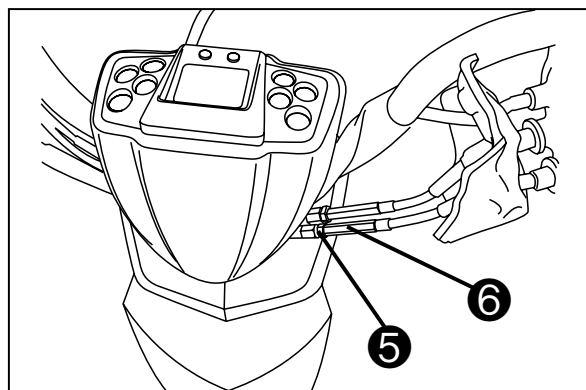
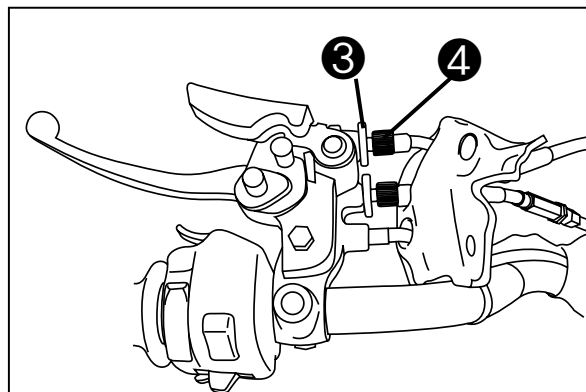
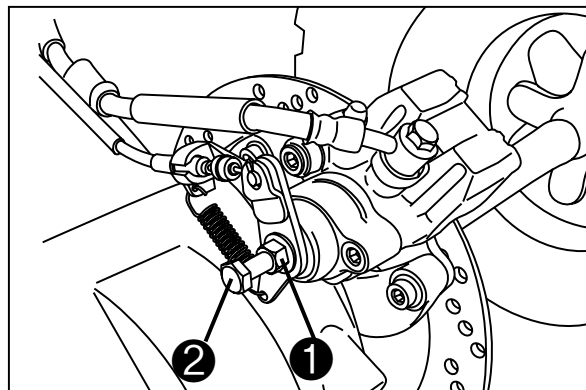
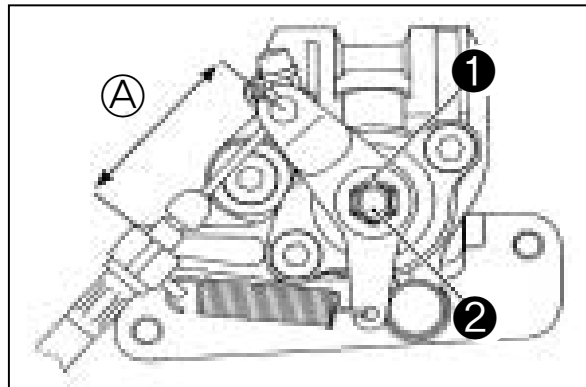
## **WARNING**

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.

## **PARKING BRAKE ADJUSTMENT**



1. Park the ATV on level ground.  
Check the front wheels.  
Lift the rear end of the ATV and place a block under the swing arm.
2. Loosen the parking brake adjuster lock nut ① while holding the parking brake adjuster ②.  
Turn out the adjuster ②.
3. Loosen the parking brake cable adjuster lock nut ③, ⑤.
4. Turn the adjuster ②, ④, ⑥ so that cable length A is 54 ~ 58 mm (2.1 ~ 2.3 in).
5. Tighten the parking brake cable adjuster lock nut ③, ⑤.
6. Then loosen the parking brake adjuster ② 1/8 ~ 1/4 turn.
7. Tighten the parking brake adjuster lock nut ① while holding the parking brake adjuster ② in position.



## WARNING

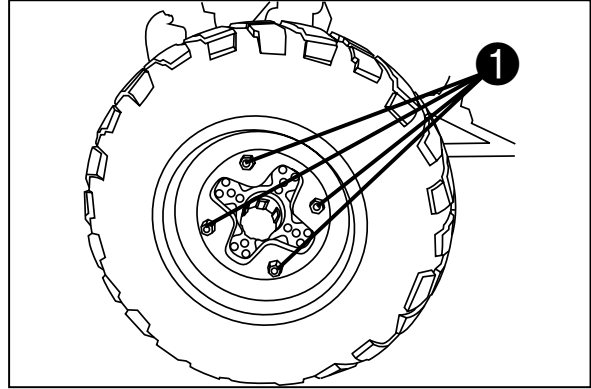
Failure to properly adjust the parking brake can be hazardous.

If the brake grabs or fails to lock the wheels when engaged, you may have an accident.

After adjusting the parking brake, lift the rear wheels off the ground and make sure they spin freely with the brake released. Also make sure the rear wheels are locked when the parking brake is set.

## FRONT AND REAR WHEEL REMOVAL

1. Park the ATV on level ground and set the parking brake.



2. Loosen the wheel set nuts ① on the wheel to be removed.
3. Lift up the front or rear end of the ATV by placing a jack or block under the axle.
4. Remove the wheel set nuts.
5. Remove the wheel.

To reinstall the wheel, reverse these steps. Use the tightening torque chart to determine the tightness of the wheel set nuts. Tighten the nuts in a cross-wise pattern.



TIGHTENING TORQUE	
FRONT	39.2 ~ 58.8 N · m (3.92 ~ 5.88 kgf · m)
REAR	39.2 ~ 58.8 N · m (3.92 ~ 5.88 kgf · m)

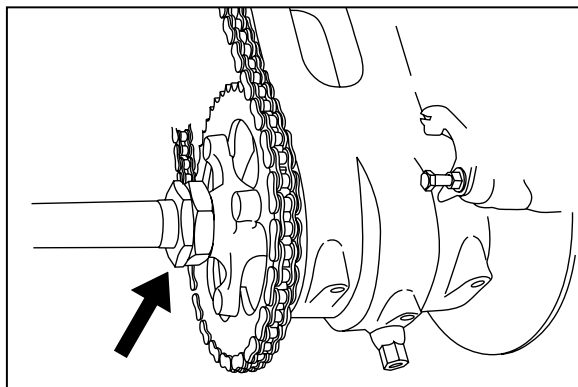
## ⚠ WARNING

Failure to tighten the wheel nuts to the specified torque can be hazardous.

If the wheel nuts are not properly tightened, the wheel can come off, causing an accident.

Be sure to tighten the wheel nuts to the specified torque. If you do not have a torque wrench or do not know how to use one, ask your Hyosung dealer or a qualified mechanic to check the nuts.

## REAR AXLE NUT AND LOCK NUT



Retighten the rear axle nut periodically.

TIGHTENING TORQUE	
REAR AXLE NUT	98.0 ~ 137.2 N · m (9.80 ~ 13.72 kgf · m)

## N O T E

*Ask your Hyosung dealer or qualified mechanic to retighten the axle nut.*

## SPARK ARRESTER

The muffler has a spark arrester which must be periodically cleaned to maintain good efficiency. At the intervals shown in the maintenance chart, clean the spark arrester as follows :

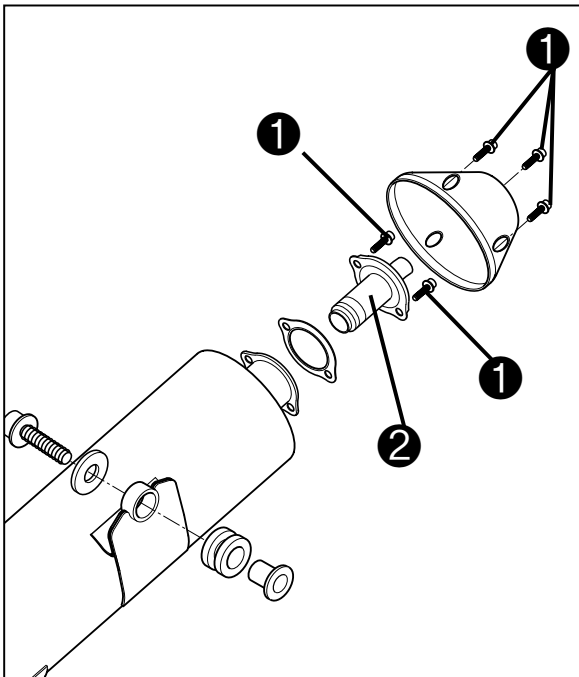
### **WARNING**

**A hot muffler can harm you.**

**You can be burned if you touch the hot muffler.**

**Wait until the muffler cools to avoid burns.**

1. Remove the five bolts① and pull out the spark arrester② .
2. Use a brush to remove carbon deposits from the spark arrester screen.  
Be careful not to damage the spark arrester screen.  
Check that the screen has no holes or tears.  
Replace the screen if necessary.
3. Reinstall the spark arrester in the reverse order of the removal.



## LAMP BULB REPLACEMENT

The wattage rating of each bulb is shown in the following chart. When replacing a burned-out bulb, always use the same wattage rating.

NAMES		CAPACITY
Head lamp	HI	55W
	LO	55W
	Position	5W
Brake / Tail lamp		LED type
Turn signal lamp		10W × 4
License plate lamp		5W

※ LED : Light Emitting Diode

## ⚠ CAUTION

**Failure to use a lamp bulb with the correct wattage rating can damage your ATV.**

**The electrical system can overload, or the bulb may burn out sooner.**

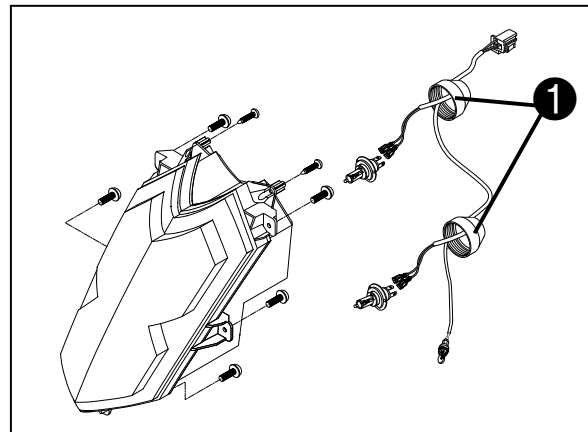
**Use only the lamp bulbs shown in the chart as replacement bulbs.**

## HEAD LAMP

To replace the head lamp bulb, use the following procedure :

1. Remove the front fender bolts.

Move the front fender upward to get enough space to remove the head lamp bulb.



2. Remove the dust cover ① and socket spring.
3. After removing the bulb at socket, replace the new bulb.
4. To install the head lamp, reverse the above sequence.

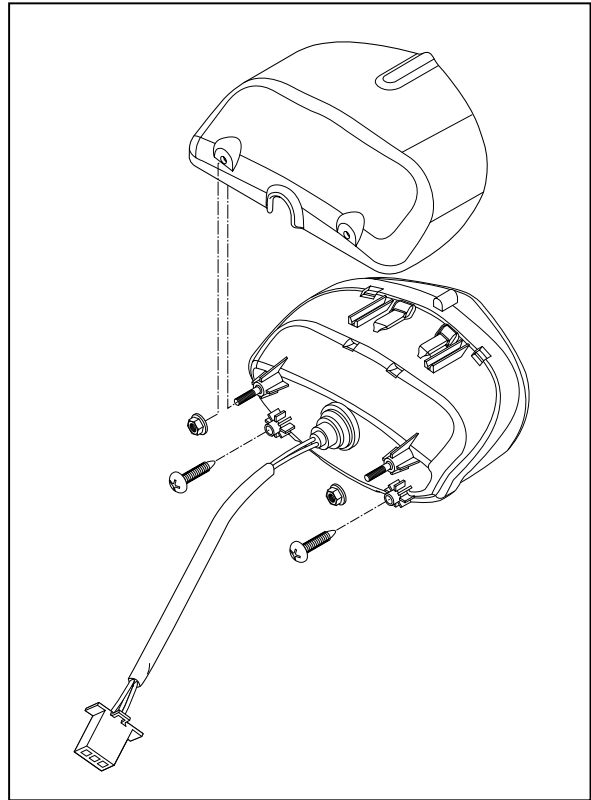
## **⚠ CAUTION**

Touching the head lamp bulb glass may damage the bulb.

The bulb's life may be shortened by oil from your fingerprints if you touch it.

When replacing the head lamp bulb, be careful not to touch the glass. Grasp the new bulb with a clean cloth.

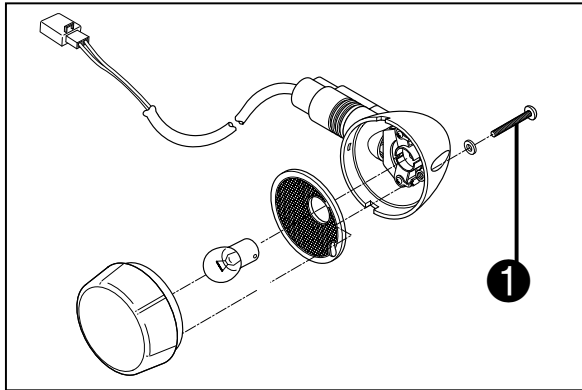
## **BRAKE LAMP / TAIL LAMP**



This ATV's brake/tail lamp is LED(Light Emitting Diode) type.

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

## TURN SIGNAL LAMP

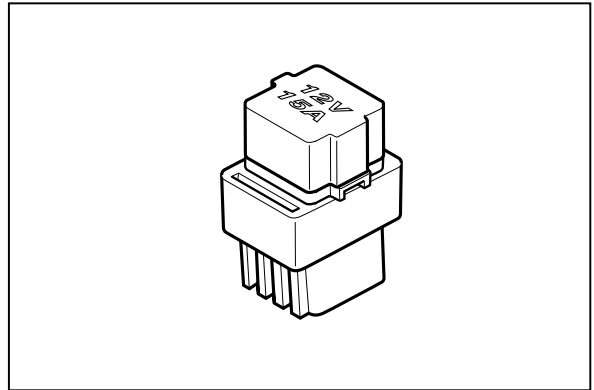


1. Remove the lens by removing the screw ①.
2. Push the bulb, turn it to the counter-clockwise, and pull it out.
3. After stick in the new lamp, assemble the lens.

### CAUTION

Overtightening the screws may cause the lens to crack.

## FUSE



The fuse box is located under the left side cover. If there is any electrical system failure, first check the fuse. In case the fuse blows, there is one spare fuse (15A).

### CAUTION

Failure to install the correct fuse can damage your ATV.

Installing a fuse of incorrect rating or using aluminum foil or wire instead of a fuse may seriously damage the electrical system.

Always replace a blown fuse with a fuse of the same type and rating. If the new fuse blows in a short time, consult your Hyosung dealer or a qualified service mechanic immediately.

## GENERAL LUBRICATION

Proper lubrication is important for safe, smooth operation and long life of your ATV. Be sure that all lubrication is performed during periodic maintenance on the ATV. Shorten intervals when you use your ATV in severe conditions. Your Hyosung dealer or a qualified mechanic should do general lubrication as shown in the MAINTENANCE CHART.

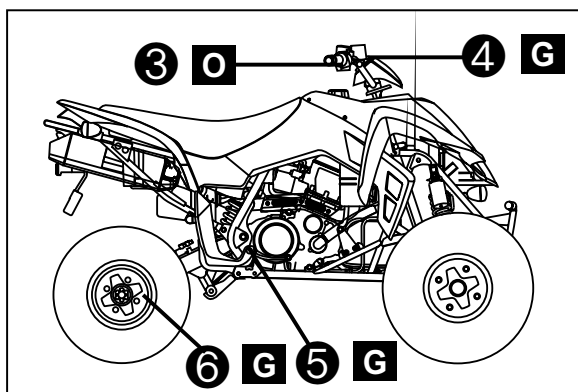
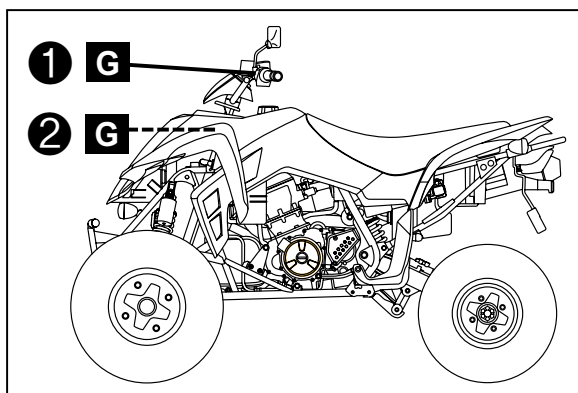
He/she will lubricate things such as wheel bearings, rear axle housing, swing arm bearing, steering shaft holder, etc.

### **⚠ CAUTION**

**Lubricating switches can damage your ATV.**

**Lubricating switches can damage the switches.**

**Do not apply grease and oil to the switches.**



- ① Clutch lever holder
- ② Steering shaft holder
- ③ Throttle lever
- ④ Front brake lever holder
- ⑤ Rear brake pedal and rod link
- ⑥ Drive shaft joint spline

**O** ..... Motor oil

**G** ..... Grease

## 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 ATV.**

**Improper repairs or adjustments may damage the ATV 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.**

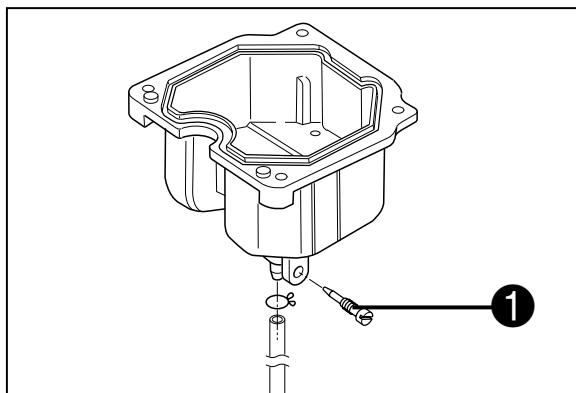
### ★ COMPLAINT :

Engine is hard to start or does not start at all.

Something is probably wrong with the fuel system or ignition system.

### ⦿ FUEL SYSTEM CHECK

1. Make sure there is adequate fuel in the fuel tank.
2. Check that the ignition key is turned to the "⦿" (ON) position.
3. Make sure there is enough fuel reaching the carburetor from the fuel tank.



- a. Loosen the drain screw ① which is located under the carburetor. Drain the fuel from the carburetor into a container.

### WARNING

**Draining fuel from the carburetor can be hazardous.**

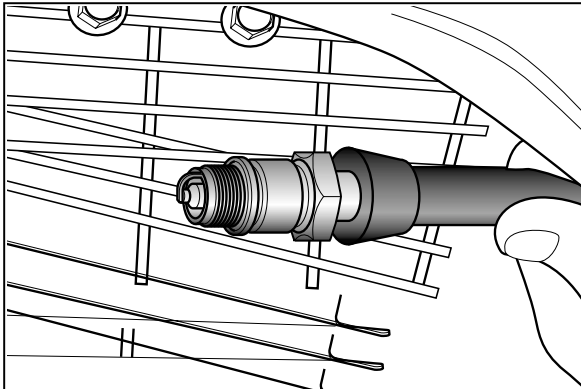
**Fuel can catch on fire if you do not handle it properly.**


**When draining the carburetor, always shut the engine off. Do not smoke, and never drain or refuel in an area where there are open flames or sparks. Do not spill the fuel or you may create a fire hazard. Dispose of drained fuel properly.**

- b. Tighten the drain screw.
- c. Push the electric starter switch for a few seconds to turn the engine.
- d. Loosen the drain screw and check that the carburetor is filled back up with fuel.
- e. If fuel is reaching the carburetor, the ignition system should be checked next.

## ⦿ IGNITION SYSTEM CHECK

1. Remove the fuel tank.
2. Remove the spark plug and reattach it to the spark plug lead.



3. Put the ignition switch in the “” (ON) position. While holding the spark plug base firmly against the engine, squeeze in the clutch lever and push the electric starter switch. If the ignition system is operating properly, a blue spark should jump across the spark plug gap. If there is no spark, take your ATV to your **Hyosung** dealer.

## ★ COMPLAINT : Engine stalls

1. Make sure there is enough fuel in the fuel tank.
2. Check to see that the spark plug is not fouled. Remove the plug and clean it. Replace it, if necessary.
3. Check the idle speed. If necessary, adjust it using a engine tachometer. The correct idle speed is 1,300 ~ 1,500 rpm.

### CAUTION

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

### WARNING

Performing the spark test improperly can be hazardous.

You could get a high voltage electrical shock if you are not familiar with this procedure.

Do not perform this check if you are not familiar with the procedure.

Do not point the spark plug near the spark plug hole during this test. Do not do this test if you have a heart condition or wear a pacemaker.



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## PREPARATION FOR WINTER RIDING

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Use of some engine oils in cold weather may make the engine hard to start. It may also cause clutch drag and stiff transmission operation.

Select the right oil for cold weather according to the chart in the FUEL, ENGINE OIL AND COOLANT RECOMMENDATION section.

### ★ ENGINE OIL CHANGE

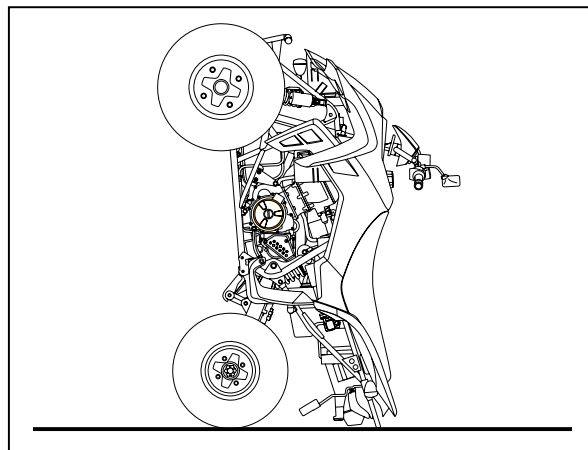
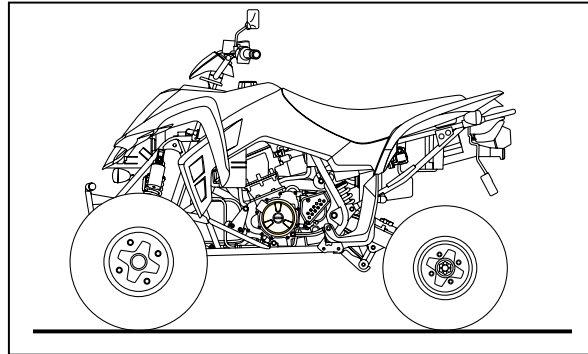
Dirt and dust in the oil will affect good oil performance, especially when the weather is cold. Change the engine oil before using your ATV in cold weather (below freezing) even if the oil that is in the engine is the right type for colder temperatures.

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## TRANSPORTING

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It is best to transport the ATV in the normal position. It may also be transported on its back wheels, but this is not as stable as the normal position.



### CAUTION

**Failure to properly secure the ATV can be hazardous.**

**Failure to properly secure the ATV may result in an accident or damage to the ATV.**

**When transporting the ATV, lock the parking brake and tie down the ATV securely with straps, rope, or some other suitable means. Use extra tie downs when you transport the ATV in the standing position.**

Before transporting the ATV, drain the fuel from the carburetor as follows :

1. Drain fuel from the carburetor into an empty container by loosening the carburetor drain screw.
2. When the fuel has drained, retighten the drain screw.



## **WARNING**

**Draining fuel from the carburetor can be hazardous.**

**Fuel can catch on fire if you do not handle it properly.**

**When draining the carburetor, always shut the engine off. Do not smoke, and never drain or refuel in an area where there are open flames or sparks. Do not spill the fuel or you may create a fire hazard. Dispose of drained fuel properly.**

## **★ STARTING THE ATV AFTER TRANSPORT**

To feed fuel into the carburetor, push the starter switch for a few seconds.

---

## **CLEANING PROCEDURE**

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

It is important to clean and inspect your ATV 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.

## ★ PREPARATION FOR CLEANING

Wash the ATV before any mud dries on the ATV.

Block or seal the end of the exhaust pipe (muffler) using a piece of plastic wrap, cloth rag or another method to prevent water from entering the engine.

### CAUTION

High pressure washers can damage your ATV (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 ATV. It may cause rust, corrosion and increase wear.

Do not use high pressure washers to clean your ATV.

## ★ WASHING YOUR ATV

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

### **N O T E**

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

- ***Ignition switch***
- ***Spark plug***
- ***Fuel tank cap***
- ***Carburetor***
- ***Snorkel air intake for air cleaner and carburetor (The snorkel air intake opening is located at the highest point on the ATV, usually in front of the seat.)***
- ***Radiator fins***

Use a garden hose at low pressure to remove the majority of dirt or other debris. Hand wash your ATV with a mild soap or detergent and water. Try to thoroughly remove all dirt and debris without excessive water pressure, even at remote areas such as between engine cooling fins, linkages or mounting brackets. Cloth rags, washing mitts or cleaning brushes can be used, be careful with brushes as they may scratch plastic or painted surfaces. Rinse the ATV thoroughly with clean water. Dry all areas using a chamois or soft absorbent cloth.

### CAUTION

**Improper cleaning can damage the radiator.**

**Radiator fins can be damaged by spraying high pressure water on them.**

**Do not spray high pressure water on the radiator.**

## ★ INSPECTION AFTER CLEANING

Remove the rags or wrapping from the exhaust pipe. Check the drain tubes on the bottom of the air cleaner box and drain any water that has collected in them. For extended life of your ATV, lubricate according to "GENERAL LUBRICATION" section.

### **WARNING**

**Operating ATV 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 ATV, while 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 ATV for any problems that may have arisen during your last ride.

## ★ STORAGE PROCEDURE

If you don't plan on using your ATV 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 :

### ⦿ **VEHICLE**

Place the ATV on level ground and wash the entire vehicle.

### ⦿ **FUEL**

Drain the fuel from the fuel tank using a hand pump or siphon. Drain the fuel from the carburetor using the carburetor drain screw.

### **WARNING**

**Draining the fuel tank can be hazardous.**

**Fuel can catch on fire if you do not handle it properly.**

**When draining the fuel tank, always shut the engine off. Do not smoke, and never drain fuel in an area where there are open flames or sparks. Keep pets children away from fuel, and dispose of drained fuel properly.**

## ⦿ ENGINE

Remove the spark plug and pour one tablespoon of motor oil into the spark plug hole. Reinstall the spark plug and crank the engine a few times to spread the oil in the cylinder.

## ⦿ BATTERY

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

## ⦿ TIRES

Inflate tires to the normal pressure.

## ⦿ EXTERNAL

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

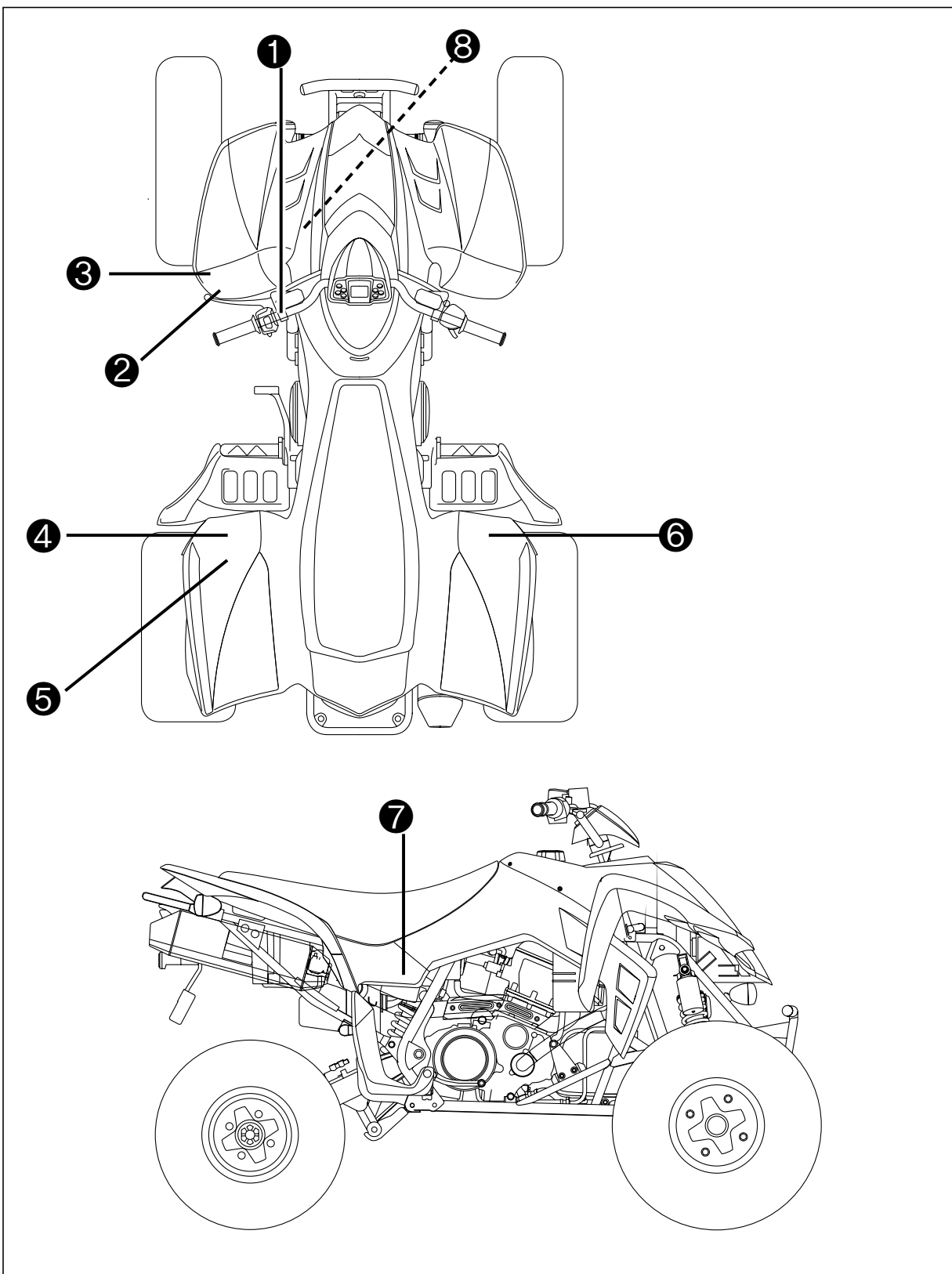
## ⦿ MAINTENANCE DURING STORAGE

Once a month, recharge the battery. The standard charging rate is  $0.8A \times 10$  hours.

## ★ PROCEDURE FOR RETURNING TO SERVICE

1. Clean the entire ATV.
2. Drain all the engine oil. Install a new oil filter and fill the engine with fresh oil as outlined in this manual.
3. Reinstall the battery.
4. Remove the spark plug. Turn the engine a few times by pushing the electric starter switch. Reinstall the spark plug.
5. Make sure that the ATV is properly lubricated.
6. Perform the INSPECTION BEFORE RIDING as listed in this manual.
7. Start the ATV as outlined in this manual.

## LOCATION OF LABELS



**SET PARKING BRAKE BEFORE  
STARTING ENGINE.**

68343 H K3100

1



2



3

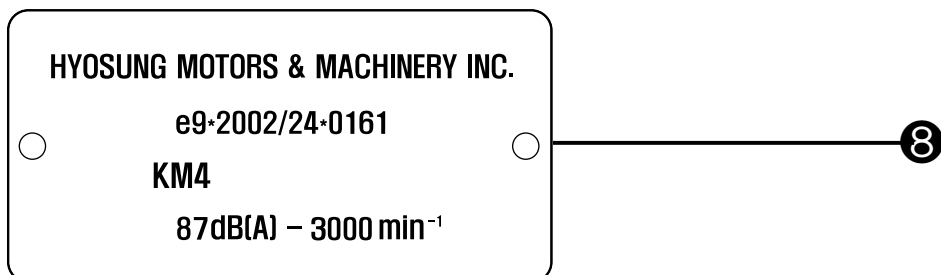
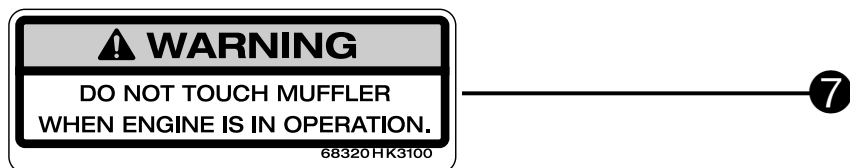
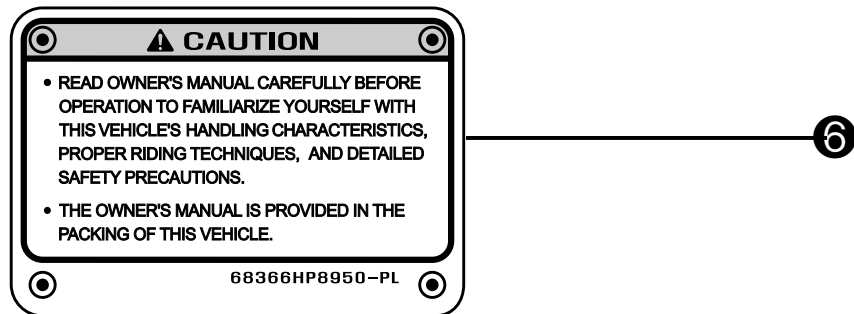


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# SPECIFICATIONS

## DIMENSIONS AND DRY MASS

Overall length	1,810 mm (71.3 in)
Overall width	1,160 mm (45.7 in)
Overall height	1,165 mm (45.9 in)
Wheelbase	1,265 mm (49.8 in)
Ground clearance	290 mm (11.4 in)
Mass	220 kg (485 lbs)

## ENGINE

Type	Four-stroke, DOHC, Liquid-cooled
Number of cylinder	1 cylinder
Bore	96 mm (3.78 in)
Stroke	62 mm (2.44 in)
Piston displacement	448.8 cm <sup>3</sup> (27.4 in <sup>3</sup> )
Carburetor	BDS42 TYPE
Starter system	ELECTRIC STARTER

## TRANSMISSION

Clutch	Wet multi-plate type
Final reduction	3.143
Drive chain	RK 520EXW, 102 Links
Transmission	1st : 2.538 2nd : 1.684 3rd : 1.261 4th : 1.040 5th : 0.885 Reverse : 2.231

## CHASSIS

Front suspension	Independent, double wishbone, coil spring, oil damped
Rear suspension	Swingarm type, coil spring, oil damped
Caster	7.3°
Trail	34 mm (1.34 in)
Steering angle	37° (right & left)
Camber	0°
Toe-in	0 ~ 5 mm (0 ~ 0.2 in)
Front tire size	21 × 7 / 10
Rear tire size	20 × 11 / 9
Front brake	Double disk
Rear brake	Disk

## ELECTRICAL

Ignition type	"Igniter" type
Ignition timing	6° B.T.D.C. at 1,500rpm
Spark plug	CR8E
Battery	12V 8Ah (MF)
Fuse	15A
Head lamp	HI : 12V - 55W × 1 LO : 12V - 55W × 1 POSITION : 12V - 5W × 1
License plate lamp	12V - 5W × 1
Turn signal lamp	12V - 10W × 4
Brake / Tail lamp	LED type
Speedometer lamp	LCD type

## CAPACITIES

Fuel tank	8.0 ℓ
Engine oil	2,500 mℓ (Replace) 2,600 mℓ (Oil filter replace) 2,700 mℓ (Overhaul)

Prepared by



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