

X400 ATV USER MANUAL



 **CROSSFIRE**

Owner's Manual



WARNING

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.



Owner's Manual

INTRODUCTION

Congratulations on your purchase of the HS400ATV-8. This Owner's / Operator's manual will provide you information regarding safe operation, operational instructions , maintenance and care. Fully understanding this manual and following all of the instructions herein will provide the knowledge needed to have a safe and enjoyable ATV operation.

For questions regarding this UTV, please call (972) 446-0760.

IMPORTANT SAFETY MESSAGES

- **READ THIS MANUAL CAREFULLY AND COMPLETELY BEFORE OPERATING YOUR ATV. MAKE SURE YOU UNDERSTAND ALL INSTRUCTIONS.**
- **PAY CLOSE ATTENTION TO THE WARNING AND CAUTION LABELS ON THE ATV.**
- **NEVER OPERATE THE ATV WITHOUT PROPER TRAINING OR INSTRUCTION.**
- **THIS ATV, AND ANY OTHER ATV OVER 90 cc, SHOULD NOT BE RIDDEN BY ANYONE UNDER 16 YEARS OF AGE.**



Owner's Manual

IMPORTANT MANUAL INFORMATION

FAILURE TO FOLLOW THE WARNINGS CONTAINED IN THIS MANUAL CAN RESULT IN SERIOUS INJURY OR DEATH. Particularly important information is distinguished in this manual using the following notations:



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



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

CAUTION:

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

NOTE:

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



Owner's Manual

IMPORTANT NOTICE

The turning speed of this ATV should not exceed 25km/h.

This ATV is designed and manufactured OFF-ROAD use only. It is illegal and unsafe to operate this ATV on any public street, road or highway.

This ATV complies with all applicable OFF-ROAD noise level and spark arrester laws and regulations in effect at the time of manufacture.

Please check your local riding laws and regulations before operating this ATV.

When the temperature is below $-20^{\circ}\text{C}(-4^{\circ}\text{F})$, please park the ATV in the place where the temperature is higher than $-20^{\circ}\text{C}(-4^{\circ}\text{F})$. After the ATV has warmed up, the ATV can be started.

Please check P6-3 on the warming up process.

When the temperature is higher than $38^{\circ}\text{C}(100^{\circ}\text{F})$, and when you park the ATV after it runs at a high speed, please turn off flameout switch firstly, while make the radiator fan still work for at least 3 minutes, then turn off the power switch to save the battery.

As long as the ATV key switch is on, the oil pump of the EFI system is in working status, which will consume the storage of the battery. When the battery is short of electricity, the electric start system would not work. So, if you want to stop ATV working for a long time, please always keep the key switch off.



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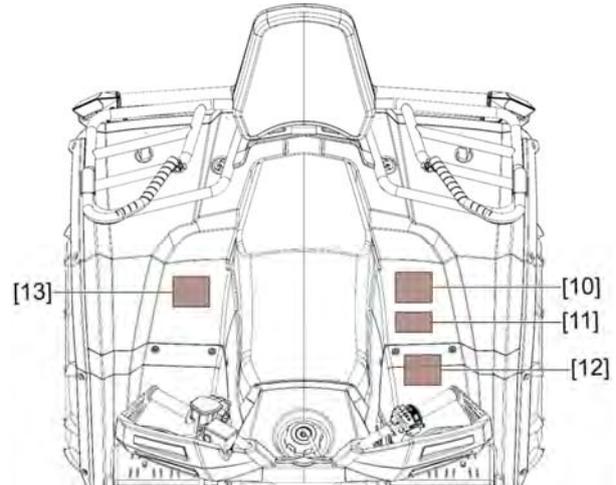
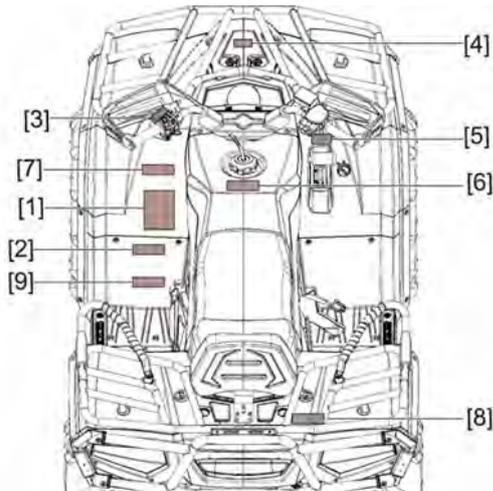


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LOCATION OF THE WARNING AND SPECIFICATION LABELS



1-2 Location of the Warning and Safety Labels

Read and understand all of the labels on your machine. They contain important information for safe and proper operation of your ATV.

Never remove any labels from your ATV. If a label becomes difficult to read or comes off, a replacement label is available from your dealer.

1.



Location of the Warning and Safety Labels 1-3

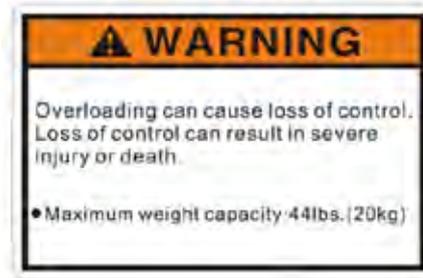
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3.



4.



5.

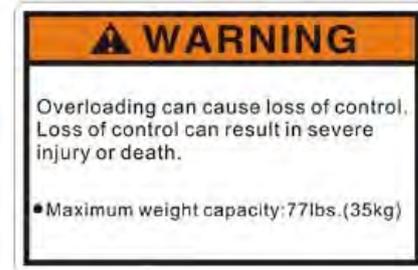


1-4 Location of the Warning and Safety Labels

6.



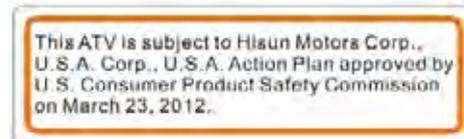
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7.



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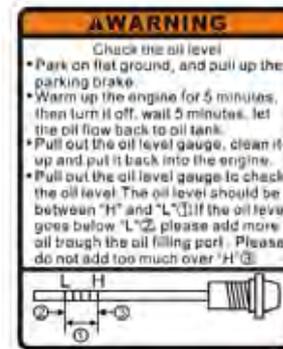


Location of the Warning and Safety Labels 1-5

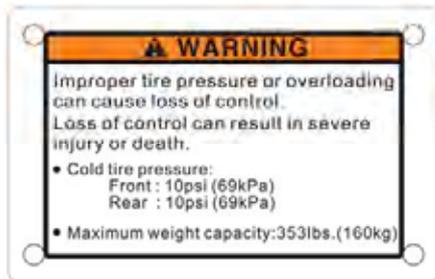
10.



12.



11.



13.



2-1 Safety Information



SAFETY INFORMATION

This ATV is a special vehicle, which is different from other vehicles such as motorcycles and cars. A collision or rollover can occur quickly, even during routine maneuvers such as turning and riding on hills or over obstacles if you fail to take proper precautions.

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

- Read this manual and all labels carefully and follow the operating procedures described.
- Never operate an ATV without proper training or instruction. **Take a Training Course.** Beginners should receive training from a certified instructor.
- Always follow the age recommendation:
A child under 16 years old should never operate an ATV with an engine size greater than 90cc.
- Never allow a child under age 16 to operate an ATV without adult supervision, and never allow continued use of an ATV by a child if he or she does not have the abilities to operate it safely.
- Never carry more than one passenger on an ATV unless it is designed for two people.
- 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 use alcohol or drugs before or while operating an ATV.
- Never operate it at a high speed for your skills. Always operate it at a speed that is proper for the terrain, visibility and operating conditions, and your experience.
- Never attempt wheelies, jumps, or other stunts.
- Always inspect your ATV each time when you use it to make sure it is in safe operating condition. Always follow the inspection and maintenance procedures and schedules described in this manual.
- Always keep both hands on the handlebars and both feet on the footboards of the ATV during operation.
- Always go slowly and be extra careful when operating on unfamiliar terrain. Always be alert to terrain conditions changing when operating an 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. Don't operate an ATV beyond your capabilities. Practice on shallow inclines before attempting larger steeper hills.



2-3 Safety Information

- Always follow proper procedures for climbing hills as described in this manual. Check the terrain carefully before climbing any hill. Never climb those hills with excessively slippery or loose terrain. Keeping your weight forward, never open the throttle suddenly. Never go over the top of a hill at a high speed.
- Always follow proper procedures for going down hills and braking on hills as described in this manual. Check the terrain carefully before you start to go down any hill. Keeping your weight forward, never go down a hill at a high speed. Avoid going down a hill with a slope that could cause the vehicle roll down. Brake carefully when necessary, for braking may cause the ATV to roll down while going down the hill.
- Always follow proper procedures for crossing the hill as described in this manual. Avoid hills with excessively slippery or loose terrain. Keeping your weight forward, never attempt to turn around the ATV on any hill until you have mastered the turning technique described in this manual. Avoid crossing the steep hill.
- Always use proper procedures if you stall or roll backwards when climbing a hill. To avoid stalling, use the proper gear range and maintain a steady speed when climbing a hill. If you stall or roll backwards, follow the special procedures for braking described in this manual.
- Always check 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.



Safety Information 2-4

- Always be careful when skidding or sliding. Learn to control the vehicle in skidding or sliding by practicing at low speeds and on level, smooth terrain. On extremely slippery surfaces, go slowly and be very cautious in order to reduce the chance of out of control. NEVER ride your ATV on an icy road.
- Never operate an ATV in fast flowing water or in water deeper than that recommended in this manual. Remember that wet brakes will reduce brake performance. Test your brakes after leaving water. If necessary, apply them several times to let friction dry the linings.
- Always be sure there are no obstacles or people behind you when you operate in reverse. Go slowly while the vehicle in reverse.
- Always use the tires with the specified size and type indicating in this manual.
- Always maintain proper tire pressure as described in this manual.
- Never modify an ATV through improper installation or accessories.
- Never exceed the stated load limit for an ATV. Cargo should be properly securely attached. Reduce speed and follow instructions in this manual for carrying cargo or pulling a trailer. Allow longer distances for stopping when braking.



2-5 Safety Information

WARNING

Improper handling of gasoline may cause fire and you could be burned.

Remember: Always turn off the engine when refueling. Do not refuel right after the engine has been stopped which is still very hot.

Do not spill gasoline on the engine or exhaust pipe/muffler when refueling.

No smoking while refueling.

Never refuel in the vicinity of sparks, open flames, or other sources of ignition such as the pilot lights of water heaters and clothes dryers.

When transporting the ATV in another vehicle, be sure it is in an upright position. Otherwise, fuel may leak out of the fuel tank.

Gasoline is poisonous and can cause injuries.

If you swallow gasoline or inhale gasoline fumes, or get gasoline in your eyes, see your doctor immediately. If gasoline spills on your skin, wash with soap and water. If gasoline spills on your clothing, change your clothes.



WARNING

POTENTIAL HAZARD

Starting or running the engine in a closed area.

WHAT CAN HAPPEN

Exhaust fumes are poisonous and may cause loss of consciousness and death within a short time.

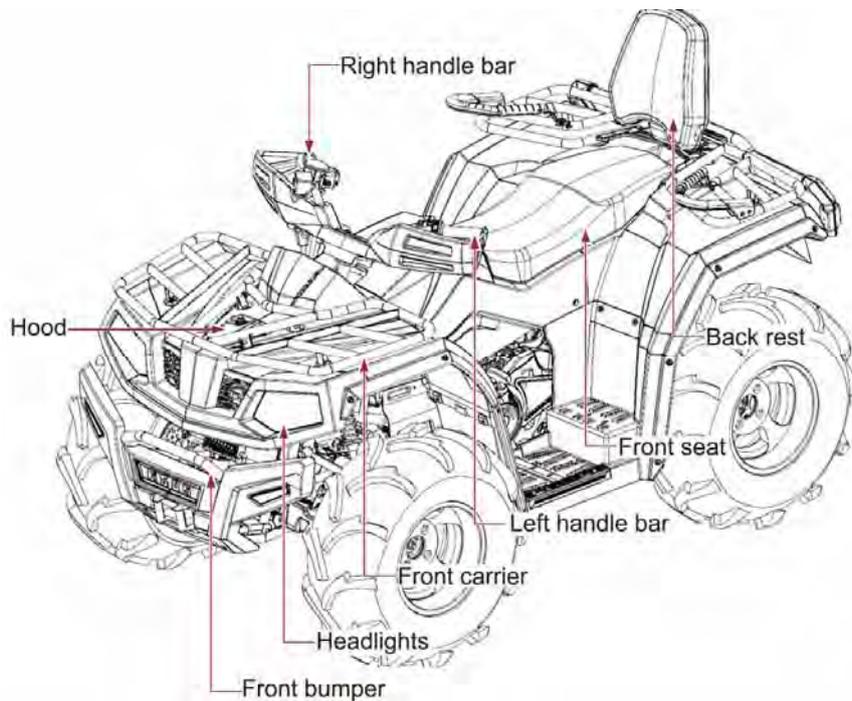
HOW TO AVOID THE HAZARD

Always operate your ATV in an area with good ventilation.

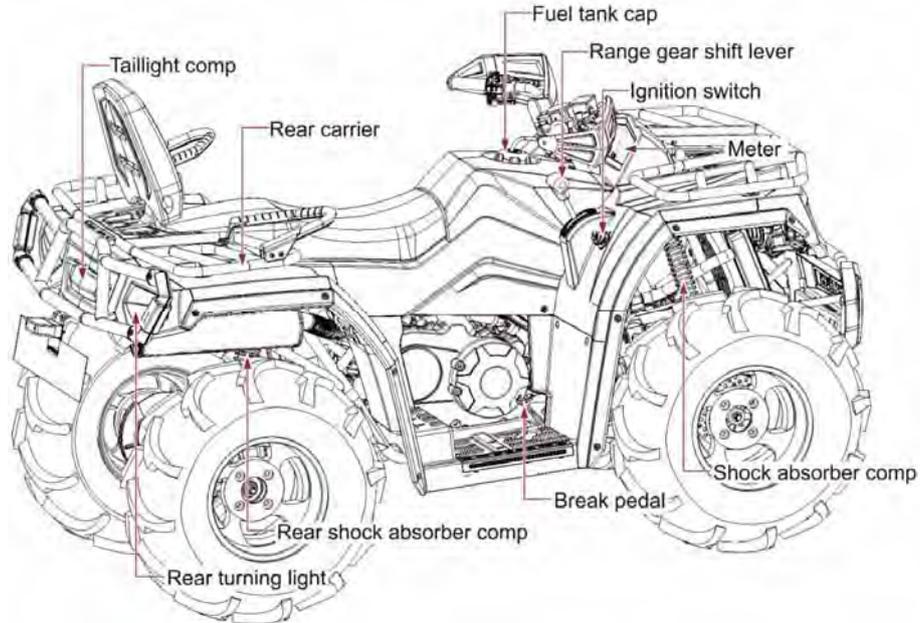


3-1 Description and Vehicle Identification

DESCRIPTION AND MACHINE IDENTIFICATION



Description and Vehicle Identification 3-2



3-3 Description and Vehicle Identification

NOTE: _____

The ATV you have purchased may differ slightly from those shown in the figures of this manual.

Identification number records

Record the vehicle identification number, engine identification number and model label information in the spaces provided for assistance when ordering spare parts from a dealer or for reference in case the vehicle is stolen.

1. VEHICLE IDENTIFICATION NUMBER:

2. VEHICLE IDENTIFICATION NUMBER:

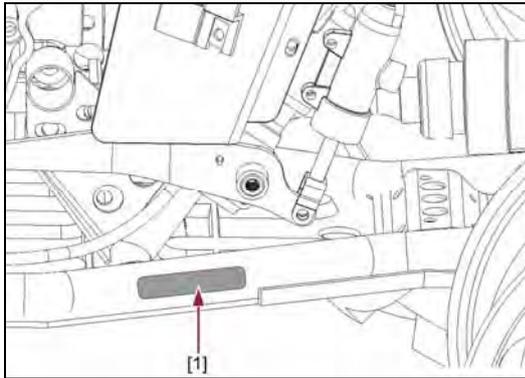
3. MODEL LABEL INFORMATION:

Vehicle identification number

The vehicle identification number is stamped into the frame.



Description and Vehicle Identification 3-4

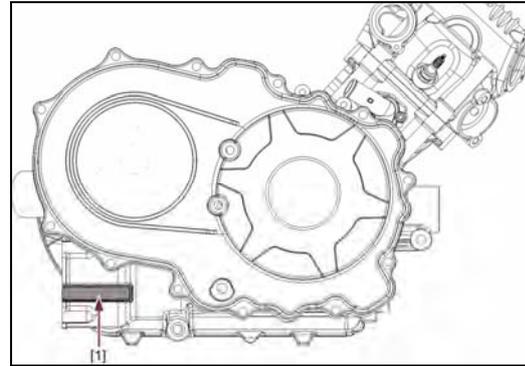


[1]. Vehicle identification number

NOTE: _____

The vehicle identification number is used to identify your machine.

Engine identification number



[1]. Engine identification number

NOTE: _____

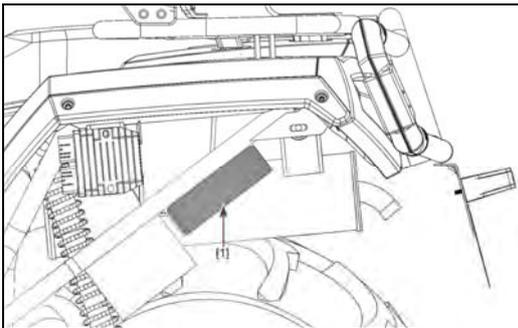
The engine identification number also is used to identify your machine.

Model label

The model label is affixed at the location shown in the illustration. Record the

3-5 Description and Vehicle Identification

information on this label in the space provided. This information will be needed to order replacement parts from your dealer.

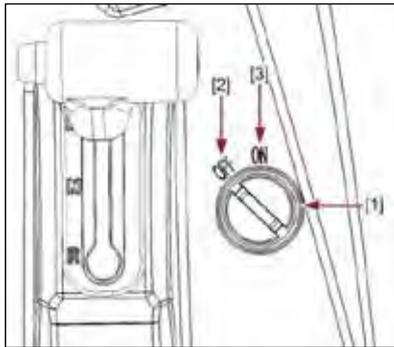


[1]. Model label

CONTROL FUNCTIONS

Ignition switch

Switch functions in respective positions are as follows:



[1] Ignition switch

[2] “OFF”

[3] “ON”

ON:

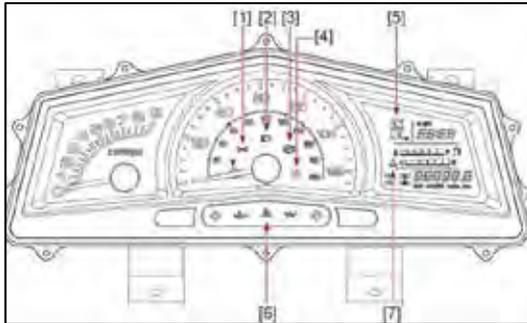
The engine can be started only in this position and the headlights and taillights can be turned on when the light switch is on.

OFF:

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

4-2 Control Functions

Indicator and Warning Lights



1. Position Light
2. High beam indicator
3. Park position indicator “P”
4. Neutral indicator “N”
5. Gear display
6. Emergency flashers indicator
7. Coolant temperature gauge

Low-gear range indicator “F”

This indicator light comes on when the drive select lever is in the “F” position.

Neutral indicator “N”

This indicator comes on when the drive select lever is in the “N” position.

Reverse indicator “R”

This indicator comes on when the drive select lever is in the “R” position.

Park indicator “P”

This indicator light comes on when the mechanical parking brake is applied.

Coolant temperature warning indicator “ ”

When the coolant temperature reaches a specified level, this light comes on indicating the coolant temperature is too hot. If the light comes on during operation, stop the engine as soon as it is safe to do so and allow the engine to cool down for about 15 minutes.

CAUTION:

- The engine may overheat if the ATV is overloaded. If this happens, reduce the load to specification.

Headlight indicator “”

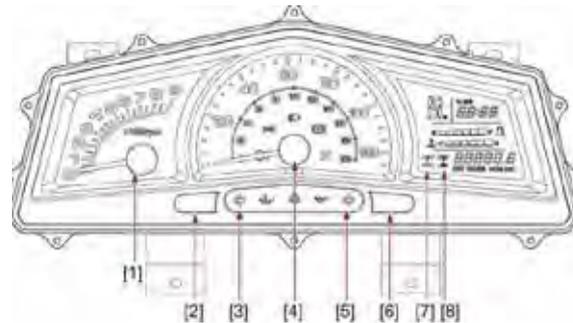
When the headlights are on, this indicator will light.

Position light indicator “”

When the headlight is on, this indicator will light.

Emergency flashers “”

When the emergency flasher is on, this indicator will light.

Speedometer Unit

1. RPM indicator
2. Odometer/trip meter/Eng. hours & Clock adjustment
3. Left turn signal light
4. Speed indicator
5. Right turn signal light
6. Miles per hour/Kilometers per hour selector button
7. 2WD / 4WD indicator light
8. Differential Lock indicator light

Speedometer unit functions:

- a speedometer (which shows the speed)

4-4 Control Functions

- an odometer (which shows the total distance covered)
- a trip meter (which can be cleared and then show any new distances traveled)
- an RPM indicator (which shows the revolutions per minute of the engine)
- a clock
- an EFI fault code indicator (which shows the fault code diagnosed by EFI)

Odometer and trip meter modes

On the display panel there are two large buttons, one located on the left side and one on the right side. Quickly toggle the button on the left side can switch the display from the odometer to the trip meter, and then to the hours meter; then it starts the cycle over.

The odometer displays the total distance traveled by the ATV. The trip meter can record distances up to 999.9 miles for specific trips. To reset the trip meter, press the left button to switch to small mileage (Trip), then press the right button for a long time to reset. The trip meter can also be used to estimate the distance that can be traveled with a full tank of fuel. This information will enable you to judge the fuel consumption.

To switch the miles to kilometers on the display, press the right side button.

Clock time adjustment

Press the left button and hold for three seconds and the clock goes into the hour 'set' mode.



1. Press the right button to set the hour.
2. Press the left button again and the clock goes into the minute 'set' mode.
3. Press the right button to set the minutes.
4. Press the left button again and the clock will exit the 'set' mode.

Four-wheel drive indicator “”/ “”

There are two 4WD indicators on the display panel. The left 4WD indicator has a blinking circle on the front axle when the grey and yellow 4WD selector buttons are pressed in indicating the “4WD” function has been activated. This position also indicates that the 4WD is NOT locked. This allows the wheels on the left and right sides to rotate at different

speeds to accommodate turning.

Differential gear lock indicator “DIFF-LOCK”

The right 4WD symbol will show an ‘X’ over the center of the front axle when the lever is moved to the right and the yellow differential gear lock button is set to the “” out position, which means the differential is not operational and is locked. When riding an ATV on muddy and slippery roads or when climbing a steep hill, make sure the 4WD lock indicator is on.

When riding on a flat road at a comparatively high speed, adjust the settings to “2WD/UNLOCK” and there are no symbols in either of the 4WD indicators.

Riding an ATV while the differential is functioning and is NOT locked, may improve



4-6 Control Functions

the stability and safety of the ATV operation.

CAUTION: _____

When the selector is set to 4WD “DIFF. LOCK” , the right 4WD symbol front axle will have an ‘X’ in the middle. When riding on smooth flat surfaces you should unlock the differential and press in the yellow and the gray buttons to the 2WD unlocked position. There should be no symbols showing in either the left or right 4WD indicators.

CAUTION: _____

If the display indicators flash or the speedometer does not show the speed while the ATV is in motion, consult a dealer to check the speed sensor and circuits.

Fault code indicator

When the EFI encounters faults, the ECU will send the fault code to the instrument display, and it will flash on the clock.

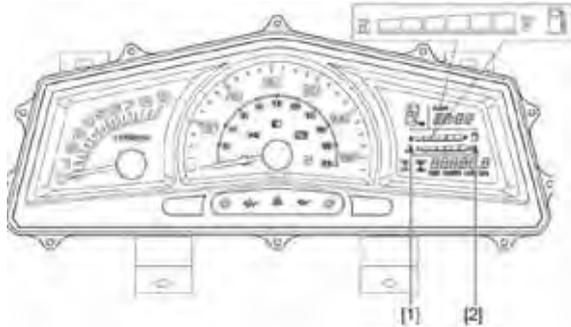
If there are more than one fault code, they will be shown in rolling sequence. When fault codes are present, press the clock button to check time. Then after five seconds, the fault code returns again. Only when the fault is fixed, the time could show automatically.

The description for the fault codes are shown in Chapter 11 of this manual.

Fuel level indicator

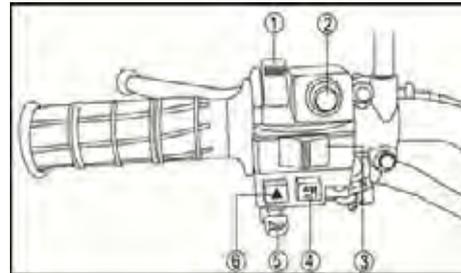
The fuel level display will indicate the fuel volume. When the fuel is getting low the fuel pump indicator will flash.





- [1]. Fuel level indicator in lower position
- [2]. Fuel level indicator in higher position

Left handlebar switches



- 1. Light switch “ /  / OFF /  ”
- 2. Starter button “ ”
- 3. Turning signal switch
- 4. Engine stop button “ /  ”
- 5. Horn button
- 6. Emergency flashers button

Light switch “ /  / OFF /  ”

Toggle switch “ ” to turn on the low beams.

4-8 Control Functions

Toggle switch “D” to turn on the high beams.

Toggle switch “OFF” to turn off all the lights.

Toggle switch “CE” to turn on the parking lights and the taillights.

NOTE: _____

Do not use the headlights with the engine off for more than fifteen minutes. Otherwise the battery may run out and the vehicle cannot start. If this happens, remove the battery and recharge it.

Ignition switch “”

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

NOTE: _____

See starting instructions prior to starting the engine. (See P6-1—6-2)

Turn signal switch

Moving the turn signal switch left or right, the turn signal light will be on with a buzzer sound.

Engine emergency stop switch “/Q”

Make sure that the engine emergency stop switch is set to “Q” before starting the engine. The engine stop switch controls ignition and can be used at all times to stop the engine, especially in an emergency. The engine will not start or run when the emergency stop switch is set to “”.



Horn button

Press this button, horn activates.

Emergency flasher button

Press this button, the four turn signal lights will flash continuously with a buzzer sound.

2WD/4WD operation

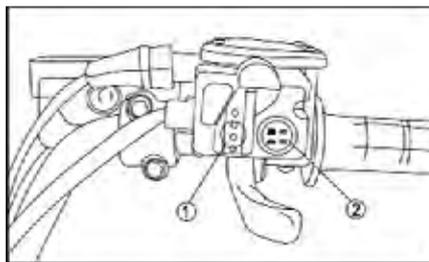
This ATV is equipped with two-wheel and four wheel drive switch "2WD/4WD". Select the appropriate drive according to different terrains and conditions.

Differential

This ATV is equipped with a front differential that can be locked, which allows the ATV to perform better on muddy surfaces.

This ATV is equipped with a "4WD/LOCK" switch to lock the differential according to terrains and conditions.

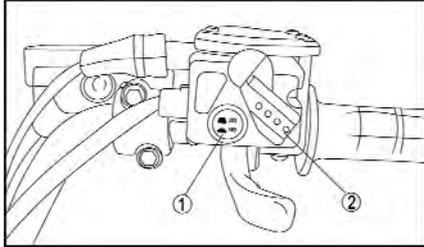
"2WD/4WD" switch



- 1. "2WD"/ "4 WD" lever switch
- 2. "2WD/ " selector button

4-10 Control Functions

“4WD/ LOCK” switch



1. “4WD/ “LOCK” button
2. “2WD”/“4WD” lever switch

CAUTION:

When ATV is in operation, DO NOT press the 2WD/4WD buttons. This may break the rear axle gears.

- Two-wheel drive (“2WD”): Power is supplied to the rear wheels only.
- Four-wheel drive (“4WD”): Power is supplied to the rear and front wheels.

- Four-wheel drive with the differential gear locked (“4WD-LOCK”): Power is supplied to the rear and front wheels when the differential gear is locked. Unlike the 4WD mode, all wheels turn at the same speed regardless of traction.

WARNING

POTENTIAL HAZARD

Changing from 2WD to 4WD or from 4WD to 4WD LOCK, while the ATV is moving.

WHAT CAN HAPPEN

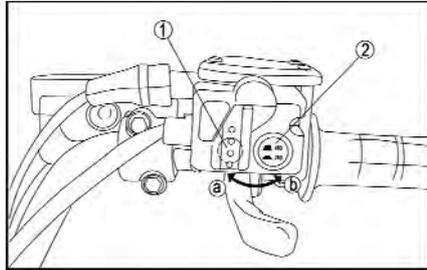
It may cause the ATV to become hard to handle. The operator could lose control.

HOW TO AVOID THE HAZARD

Always completely stop the ATV before changing from 2WD to 4WD or from 4WD to 4WD-LOCK.



2WD/4WD selection



1. Selection lever switch
2. 2WD/4WD selector button

From 2WD to 4WD:

To change from 2WD to 4WD ,stop the vehicle, and then set the switch to “4WD”.When the vehicle is in 4WD, the 4WD indicator will come on in the multi-function meter unit display .

From 4WD to 2WD

To change from 4WD to 2WD .stop the vehicle ,be sure the select lever is set to position ① , and then set the switch to “2WD”.

Switch “4WD”/”LOCK”

To lock the differential gear in 4WD, stop the vehicle, make sure the On-Command four-wheel-drive switch is set to “4WD”, move the select lever to position ② , and then set the switch to “LOCK”. When the differential gear is locked, the differential gear lock indicator light will come on along with the differential gear lock indicator in the multifunction meter unit display .To release the differential gear lock , stop the vehicle and set the switch to “4WD”.

4-12 Control Functions

WARNING

POTENTIAL HAZARD

When driving too fast with DIFF.LOCK on.

WHAT CAN HAPPEN

Four wheels will rotate at the same speed. It is extremely difficult to turn. It is easier to lose control of the ATV.

HOW TO AVOID THE HAZARD

Slow down the ATV to a safe speed when driving with the DIFF.LOCK on.

Note:

- When the switch is set to “LOCK”, the differential gear lock indicator and indicator light will flash until the differential gear is locked.
- When the indicator and indicator light are flashing, turning the steering wheel back

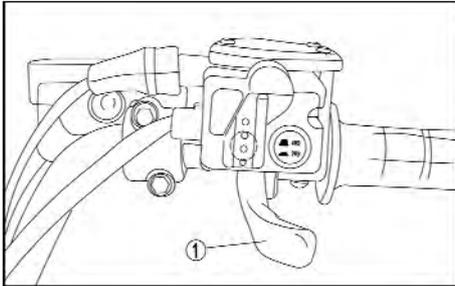
and forth will help the differential gear lock to engage.

- Riding before the differential gear lock is properly engaged (e.g., when the indicator and indicator light are flashing) will cause the engine speed to be limited until engagement is complete.

Throttle lever

While the engine is running, press the throttle lever to increase the speed. Changing the speed of the ATV by varying the throttle position. Since the throttle is spring-loaded, the ATV will decelerate and the engine will return to idle when your hand is taken off the throttle lever.





1. Throttle lever

WARNING

POTENTIAL HAZARD

Malfunction of the throttle.

WHAT CAN HAPPEN

The throttle could be hard to operate, making the ATV difficult to speed up or slow down when needed, which could cause an accident.

HOW TO AVOID THE HAZARD

Check the throttle lever before starting the engine. If it does not work smoothly, check it.

Solve the problem before riding the ATV.

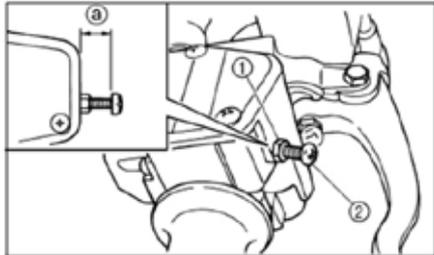
Consult a dealer if you can't solve the problem by yourself.

4-14 Control Functions

Speed limiter

The speed limiter keeps the throttle from fully opening even when the throttle lever is pushed to the maximum. Turn the adjusting screw to limit the maximum engine power available and decrease the maximum speed of the ATV.

When finish the speed adjustment, you must tighten the locknut.



1. Locknut 2. Adjusting screw
a. No more than 12 mm

WARNING

POTENTIAL HAZARD

Improper adjustment of the speed limiter

WHAT CAN HAPPEN

The throttle cable could get damaged.

The ATV may go out of control. The operator may have an accident and/or be injured.

HOW TO AVOID THE HAZARD

Do not turn the adjusting screw out more than 12 mm (0.47 in). Always make sure that the throttle lever free play is adjusted to 3-5 mm (0.12-0.20 in).

Foot brake pedal – all wheel brakes

The foot pedal is located on the right side of the ATV just above the floor pan. Pushing



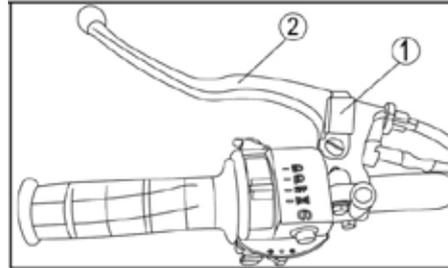
Control Functions 4-15

down the pedal will stop the ATV. This brake pedal controls the entire brake system. It applies brakes to all the wheels.



1. Foot brake pedal

maintain the ATV brake in the on position, which will also activate the park position indicator on the display. If necessary, the brake can be used as emergency brake.



1. Parking latch (if equipped) 2. Parking handlebar

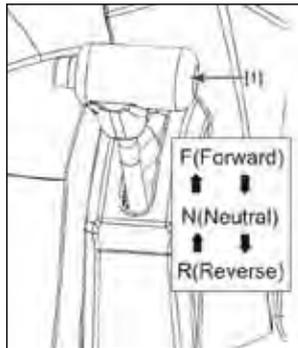
Parking brake – Park position lever

The parking brake lever is located on the left handlebar. Holding the lever thoroughly tight will stop the ATV. Holding the lever down can

4-16 Control Functions

Gear shift lever

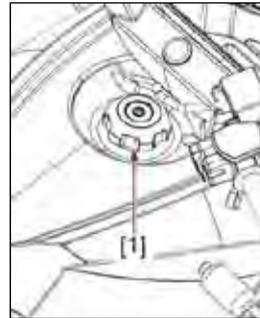
The gear shift lever is used to shift your ATV into the forward (F), neutral (N) and the reverse (R) positions. (See P6-3,—P6-5)



[1] Drive select lever

Fuel tank cap

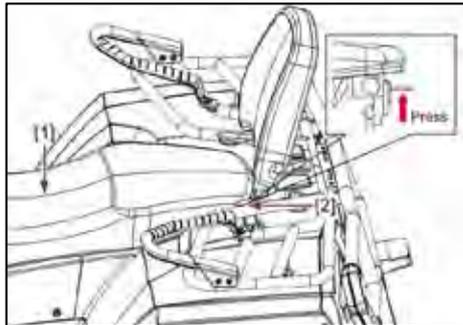
The fuel tank cap is located on the middle side of the ATV. Remove the fuel tank cap by turning it counterclockwise.



[1]. fuel tank cap

SEAT

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



[1]. Seat [2]. Seat lock buckle

CAUTION:

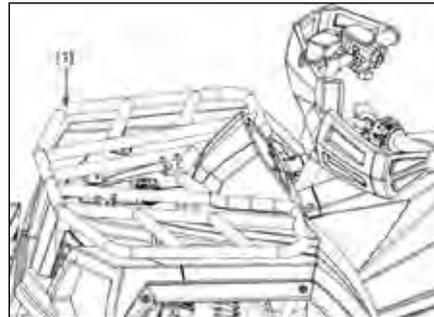
To install the seat, insert the projections on the front of the seat into the seat holders and push down on the rear of the seat.

Make sure that the seat fits securely.

Front & Rear Carrier

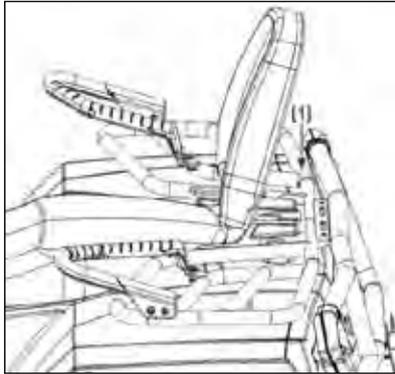
Maximum load limit of front carrier: 20kg

Maximum load limit of rear carrier: 35kg



[1]. Front Carrier

4-18 Control Functions



[1]. Rear Carrier

NOTE: _____
Goods must be tied securely and placed in the middle of the luggage carrier. Otherwise, the ATV may be out of balance, and effect the driver's control of the ATV.

Front/rear shock absorber adjustment

The spring preload can be adjusted to match the rider's weight and riding conditions.

NOTE: _____
When adjusting the rear shock absorbers, the rear wheels may need to be removed. (See pages 8-35—8-37 for removal and installation procedures.)

Spring Adjustment Principles:

When there is only a driver riding on a flat road, adjust the shock absorber to be a little softer.

Driving at higher speeds or on flat roads, adjust the shock absorber to be a little stiffer.

For off-road, adjust the shock absorber to be



fairly stiff.

At full load, adjust the shock absorber to be the stiffest it could go.

WARNING

POTENTIAL HAZARD

Improper shock absorber adjustment.

WHAT CAN HAPPEN

Uneven adjustment can cause poor handling and loss of stability, which could lead to an accident.

HOW TO AVOID THE HAZARD

Always adjust the shock absorbers on the left and right side to the same setting.

Adjust the spring as follows:

To increase the spring preload, turn the

adjusting ring counter-clockwise (direction a).

To decrease the spring preload turn the adjusting ring clockwise (direction b).



1. Spring preload adjusting ring 2. Position indicator

NOTE: _____

A special wrench can be obtained at a dealer to make these adjustments.

4-20 Control Functions

B- Standard position
A- Minimum (soft)
E- Maximum (hard)



1. Special wrench

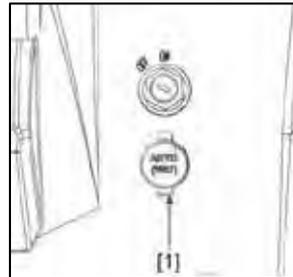
DC socket

The DC socket is located at the front right side of the ATV aside the ignition switch.

The DC socket can be used for work lights, radios, etc.

The DC socket can provide 8.5A/12V DC current for approximately 1 hour.

The DC socket should only be used when the engine is running.



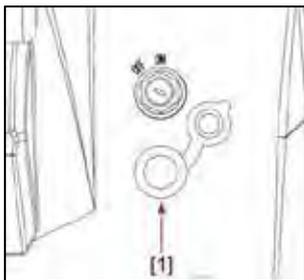
[1]. DC socket

How to use the DC socket

1. Set the light switch to “OFF” turning off all the lights.
2. Start the engine, (See pages 6-1—6-2.)



3. Open the DC socket cap, and then insert the accessory power plug into the jack.
4. When the DC socket is not being used, cover it with the cap.



[1]. DC socket

Maximum rated capacity for the DC socket
DC 12V, 120W(10A)

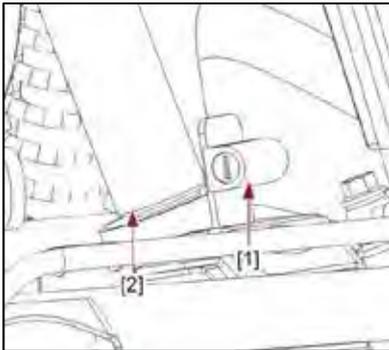
CAUTION:

- Do not use accessories requiring more than the above maximum capacity. This may overload the circuit and cause fuses to blow.
- If accessories are used without the engine running or with the headlights turned on, the battery will lose its charge and starting the engine may become difficult.
- Do not use an automotive cigarette lighter or other accessories with a plug that gets hot because the socket may be damaged.

4-22 Control Functions

Steering Lock

This vehicle is equipped with steering lock, which can guard against theft while parking.



[1]. Steering lock [2]. Steering stem

Pre Operation Check List 5-1

Before using this ATV, check the following points:

ITEM	ROUTINE	PAGE
Brakes	<ul style="list-style-type: none">● Check the operation, free play, fluid levels and look for any fluid leaks.● Add DOT 4 brake fluid if necessary.● Check to see if the disc brake rotor and the brake pads are worn beyond limits.	P5-3, P5-4 P8-28
Parking Brake	<ul style="list-style-type: none">● Check to see if the parking brake functions normally.	P6-6-P6-7
Fuel	<ul style="list-style-type: none">● Check the fuel level.● Fill with fuel if necessary.	P5-4-P5-5
Engine oil	<ul style="list-style-type: none">● Check the oil level.● Fill with oil if necessary.	P5-6
Coolant reservoir	<ul style="list-style-type: none">● Check the coolant level in the reservoir.● Fill with coolant if necessary.	P5-7-P5-8
Front & Rear Differential	<ul style="list-style-type: none">● Check for any leaks.● Check the oil level, fill with oil if necessary.	P5-7
Throttle	<ul style="list-style-type: none">● Check the throttle cable operation and free play.	P4-13
Wheels and tires	<ul style="list-style-type: none">● Check the tire pressure, wear and look for any damage.	P5-10-P5-12
Idle	<ul style="list-style-type: none">● Check to see if the idle speed is normal.● Take it to a dealer for adjustment if necessary.	P5-9
Ignition Switch	<ul style="list-style-type: none">● Ensure that the ignition switch turns off the engine.	P5-9
Fittings and fasteners	<ul style="list-style-type: none">● Check all fittings and fasteners.	P5-9
Lights and switches	<ul style="list-style-type: none">● Check for the proper operation of the switches and that the light all work.	P5-9



5-2 Pre Operation Check List

Axle boots	● Check each boot for tears or leaks.	P8-19
Instrument Panel	● Check and be sure all the instrument indicators are working properly.	P4-3
Warning Lights	● Check and be sure all the warning lights function normally on the panel.	P4-2
EFI System	● Check for any fault codes on the panel; repair the EFI system if necessary.	P8-5

WARNING

POTENTIAL HAZARD

Failure to inspect the ATV before operating.

Failure to properly maintain the ATV.

WHAT CAN HAPPEN

This increases the possibility of an accident or equipment damage.

HOW TO AVOID THE HAZARD

Always inspect your ATV each time you use it to make sure the ATV is in safe operating condition.

Always follow the inspection and maintenance procedures and schedules described in this Owner's Manual.



Brake System

Brake levers and brake pedal

Check whether there is free travel in the front brake lever, if not, adjust it.

Check whether there is free travel in the brake pedal, if not, adjust it. (See pages P8-31.)

Check the brake pedal height. If the pedal height is incorrect, have a dealer adjust it.

Check the operation of the brake levers and pedal. They should move smoothly and there should be a firm feeling when the brakes are applied. If they catch or feel spongy have a dealer inspect the brake system.

Brake Pads

Check the brake pads for wear or damage and check they are within limits. (See pages P8-31)

Disc Brake Rotor

Check the disc brake rotors, which should be within limits. (See pages P8-42-P8-43)

Brake fluid level

Check the brake fluid level. Add fluid if necessary. (See page P8-32-P33.)

Recommended brake fluid: DOT 4

Brake fluid leaks

Check to see if any brake fluid is leaking out of the lines, connections or brake fluid reservoirs. Apply the brakes firmly for one minute. If the lever moves slowly inward, there may be a leak in the brake system. If there are any leaks, the brake system should be inspected by a dealer.



5-4 Pre Operation Check List

Brake operation

Test the brakes at slow speeds after starting and make sure they are working properly. If the brakes are not good, inspect the brake pads and rotors for wear.

WARNING

POTENTIAL HAZARD

Riding with improperly operating brakes.

WHAT CAN HAPPEN

You could lose brake ability, which could lead to an accident.

HOW TO AVOID THE HAZARD

Always check the brakes at the start of each ride. Do not ride the ATV if you find any problems with the brakes. If a problem cannot be corrected by the adjustment procedures provided in this manual, have a dealer check for the cause.

Fuel

Make sure there is sufficient gasoline in the tank.

Recommended fuel:

UNLEADED GASOLINE ONLY

Fuel tank capacity:

Total: 10 L (2.2 Imp gal, 2.64 US gal)

CAUTION: _____

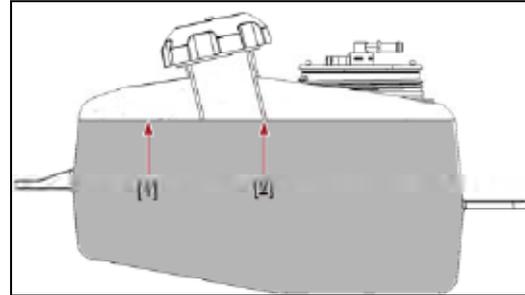
Use unleaded gasoline only. The use of leaded gasoline will cause severe damage to internal engine parts, such as the valves and piston rings, as well as to the exhaust system.



Your engine has been designed to use regular unleaded gasoline with a pump octane number ($[R+M]/2$) of 86 or higher, or research octane number of 91 or higher. If knocking or pinging occurs, use a different brand of gasoline or premium unleaded fuel. Unleaded fuel will give the spark plug longer lifetime and reduce maintenance cost.

Gasohol

This ATV is equipped with an EFI system, which ensures this ATV can attain the EPA and EEC standards. The EFI parameters are set based on the use of standard unleaded gasoline. Mixing gasohol or gasoline with oil could reduce engine performance and emissions will be worse.



[1]. Fuel level [2]. Fuel tank filler tube

5-6 Pre Operation Check List

WARNING

POTENTIAL HAZARD

Improper care when refueling.

WHAT CAN HAPPEN

Fuel can spill, which can cause a fire and severe injury.

Fuel expands when it heats up. If the fuel tank is overfilled, fuel could be forced out due to heat from the engine or the sun.

HOW TO AVOID THE HAZARD

Do not overfill the fuel tank. Be careful not to spill fuel, especially on the engine or exhaust pipe. Wipe up any spilled fuel immediately. Be sure the fuel tank cap is closed securely.

Do not refuel right after the engine has been running and it is still very hot.

Engine oil

Make sure the engine oil is at the specified level. Add oil as necessary. (See page 8-8—8-13.)

CAUTION:

- In order to prevent clutch slip (since the engine oil also lubricates the clutch), do not mix any chemical additives. Do not use oils with a diesel specification of “CD” or oils of a higher quality than specified. In addition, do not use oils labeled “ENERGY CONSERVING II” or higher.
 - Make sure that no foreign material enters the crankcase when checking oil levels.
-



Recommended engine oil type and quantity:

See page 10-2

Differential gear oil

Make sure that the differential gear oil is at the specified level. Add oil as necessary. (See pages 8-14.)

Recommended oil:

SAE 90 API GL-5 Hypoid gear oil

NOTE:

GL-5 is a quality and additive rating, GL-6 rated hypoid gear oils may also be used.

Coolant

Use the specialized antifreeze engine coolant.

Check the coolant level in the coolant reservoir when the engine is cold. (The coolant level will vary with engine temperature.) The coolant level is suitable if it is between the minimum and maximum level marks on the coolant reservoir. If the coolant level is at or below the minimum level mark, add distilled water to bring the level up to maximum level mark. Change the coolant every two years. (See pages 8-17—8-20.)



5-8 Pre Operation Check List

CAUTION:

Hard water or salt water is harmful to the engine. You may use soft water if you can not get distilled water. However, find antifreeze coolant and replace the soft water as soon as possible. Make sure to discharge all the soft water, while adding antifreeze coolant.

Coolant reservoir capacity
(up to the maximum level mark):
0.627 L (0.555 Imp qt, 0.663 US qt)

WARNING

POTENTIAL HAZARD

Removing the radiator cap while the engine and radiator are still hot.

WHAT CAN HAPPEN

You could be burned by hot fluid and steam blown out under pressure.

HOW TO AVOID THE HAZARD

Wait for the engine to cool before removing the radiator cap. Always use a thick rag over the cap. Allow any remaining pressure to escape before completely removing the cap.



Pre Operation Check List 5-9

Throttle lever

Check to see that the throttle lever operates correctly. It must open smoothly and go back to the idle status when released. Have a dealer repair as necessary for proper operation.

Fittings and fasteners

Always check the tightness of chassis fittings and fasteners before riding. Take the ATV to a dealer or refer to the Service Manual for correct tightening torque specifications.

Lights

Check the headlights and tail/brake lights to make sure they are in working condition. Repair as necessary for proper operation.

Switches

Check the operation of all switches. Have a

dealer repair as necessary for proper operation.

Idling

High idle speed may cause engine damage. A damage throttle cable or an ECU failure may result in high idle speed.

As this ATV has an EFI system, idle speed adjustment must be done via a special computer, which can modify the ECU program. Check with a dealer if necessary.

NOTE:

The EFI system ECU takes about 1 minute for self diagnostics every time, when the ignition is turned on. Check idle speed after 1 minute.

Ignition and Emergency Switches:

Ensure that the ignition and emergency switch can both turn off the engine.



5-10 Pre Operation Check List

Tire

WARNING

POTENTIAL HAZARD

Operating this ATV with improper tires, or with improper or uneven tire pressure.

WHAT CAN HAPPEN

Use of improper tires on this ATV, or operation of this ATV with improper or un-even tire pressure, may cause loss of control, increasing your risk of accident.

1. The tires listed below have been approved.

	Type	Size
Front	25×8-12	6PR
Rear	25×10-12	6PR

2. The tires should be inflated to the recommended pressure:

Recommended tire pressures

Front 69 kPa (0.70kgf/cm², 10 psi)

Rear 69 kPa (0.70kgf/cm², 10 psi)

Check and adjust the tire pressures when the tires are cold.

Tire pressures must be equal on both sides.

3. Tire pressure below the minimum specified could cause the tire dropping off from the rim under severe riding conditions.

The following are minimums:

Front 62 kPa (0.62 kgf/cm², 9 psi)

Rear 62 kPa (0.62 kgf/cm², 9 psi)

4. Use no more than the following pressures when seating the tire beads.

Front 250 kPa (2.5 kgf/cm², 36 psi)

Rear 250 kPa (2.5 kgf/cm², 36 psi)

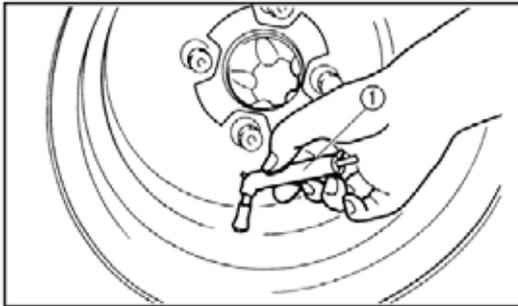


Pre Operation Check List 5-11

**Higher pressures may cause the tire to burst.
Inflate the tires very slowly and carefully.
Rapid inflation could cause the tire to burst.**

How to measure tire pressure

Use the low-pressure tire gauge, which can be found in the ATV tool kit package.



1. Low-pressure tire gauge

NOTE:

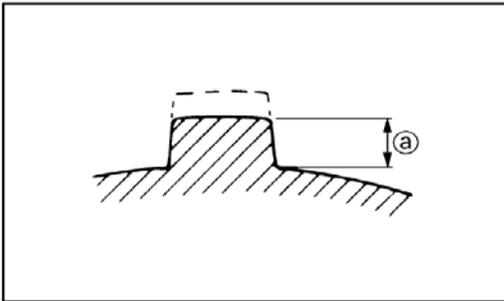
The low-pressure tire gauge is included as a standard equipment. Make two measurements of the tire pressure and use the second reading. Dust or dirt in the gauge could cause the first reading to be incorrect. Set pressure with the tire cold. Set tire pressures to the following specifications:

	Recommended pressure	Minimum	Maximum
Front	69 kpa (0.70kpf/cm ² , 10 psi)	62 kpa (0.63kpf/cm ² , 9 psi)	76 kpa (0.76kgf/cm ² , 11 psi)
Rear	69 kpa (0.70kpf/cm ² , 10 psi)	62 kpa (0.63kpf/cm ² , 9 psi)	76 kpa (0.76kgf/cm ² , 11 psi)

5-12 Pre Operation Check List

Tire wear limit

When the tire tread height decreases to 3 mm (0.12 in) due to wear, replace the tire.



a. Tire wear limit

WARNING

POTENTIAL HAZARD

Operating an ATV without being familiar with all controls.

WHAT CAN HAPPEN

Loss of control, which could cause an accident or injury.

HOW TO AVOID THE HAZARD

Read the Owner's Manual carefully. If there is a control or function you do not understand, ask your dealer.

Starting a cold engine

WARNING

POTENTIAL HAZARD

Freezing control cables in cold weather.

WHAT CAN HAPPEN

You could be unable to control the ATV, which could lead to an accident or collision.

HOW TO AVOID THE HAZARD

When riding in cold weather, always make sure all control cables work smoothly before you begin riding.

Starting Procedure:

1. Apply the foot brake pedal.
2. Turn the ignition switch to "ON" .
3. Place the gear shift to "N" position.
4. Turn the engine stop switch to "⊙" .



6-2 Operation

5. Press the “Start” button, then the engine starts.

NOTE: _____

When the gear shift is in the Neutral (N) position, see if the “N” indicator on the display is on. If not, check circuits on the ATV.

CAUTION: _____

Read the “Engine break-in” section prior to operating the engine for the first time.

Starting a warm engine

To start a warm engine, refer to the “Starting a cold engine” section. The throttle should be opened slightly.

Warming the engine

To achieve the maximum service life of engine, always warm up the engine before starting .

Never accelerate hard with a cold engine!

To make sure the engine is warm, start with one third throttle for the first 3km drive; or let the engine warm for 3 minutes at 2000 rpm.

Engine shut down

Press the emergency shut off button in, then the engine will shut down.

Or turn the ignition key to “OFF”, which will turn off the engine as well.

NOTE

When you turn off the ignition switch there is a three minute run time for the fan to continue to cool and prevent the coolant



from boiling. Then the fan automatically shuts off.

Drive Select Lever Operation and Reverse Driving

CAUTION:

Before shifting, you must stop the ATV, release the throttle lever, otherwise the transmission may be damaged.

Shifting:

Neutral to High and High to Low

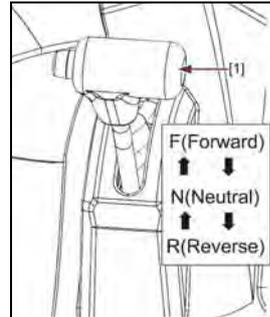
1. Bring the ATV to a complete stop and release the throttle lever to let the engine idle at 1400 rpm.
2. Once the engine idle is below 1400 rpm,

apply the brakes, shift the gear in place with the left button pressed in.

3. Apply the throttle lever gradually.

NOTE:

Make sure that the gear shift lever is completely placed into position.



[1]. Drive Select Lever

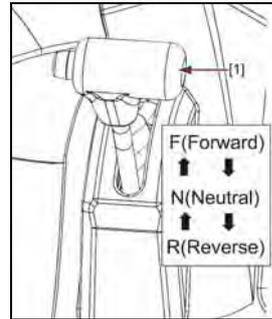
6-4 Operation

Neutral to Reverse

NOTE: _____

The gear shift lever cannot be shifted between any of the gears without first pressing in the button on the left side of the gear shift handle.

1. Bring the ATV to a complete stop and release the throttle lever to let the engine idle at 1400 rpm.
2. Once the engine idle is below 1400 rpm, apply the brakes, shift the gear in place with the left button pressed in.
3. Shift from neutral to reverse or backtrack by moving the gear shift lever into place.



[1]. Drive Select Lever

NOTE: _____

When in reverse, the reverse indicator on the display panel should be on. If the light does not come on, have a dealer inspect the electrical circuits.

Due to the synchronizing mechanism in the engine, the indicator may not come on until the ATV starts moving

4. Check the behind for people or obstacles, and then release the brake pedal.
5. Apply the throttle lever gradually and keep checking the behind while backing.

WARNING

POTENTIAL HAZARD

Improperly operating in reverse.

WHAT CAN HAPPEN

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

HOW TO AVOID THE HAZARD

When you shift into reverse, make sure there are no obstacles or people behind you. When it is safe to proceed, go slowly.

BRAKING

An ATV performs differently according to the load and the road conditions. When braking, pay special attention to the following points:

1. Leave enough distance for braking.
2. Longer braking distance is needed when an ATV is operated at a higher speed.
3. Longer braking distance is needed when the ATV carries heavier loads.
4. Longer braking distance is needed when driving an ATV on wet roads.
5. Riding an ATV on wet roads at high speeds, and applying the brakes abruptly may cause the ATV to go out of control. So slow down and be cautious when riding an ATV on wet roads.



6-6 Operation

6. Remember that wet brakes will reduce brake performance. Operate your ATV at safe speeds and apply the brakes repeatedly to let friction dry the linings. Only when the brake performance returns to normal can the ATV be driven as usual.

WARNING

POTENTIAL HAZARD

The brakes get wet.

WHAT CAN HAPPEN

The ATV may go out of control because of the wet brakes. An accidents may occur.

HOW TO AVOID THE HAZARD

1. Check the braking performance. If the braking function does not return to normal, the ATV should not be operated.

2. If the brake performance degrades, you should slow down your ATV and apply the brakes repeatedly to dry them. Only after the braking performance returns to normal should the ATV be driven.

Parking brake

- Stop the ATV using the brake pedal.
- Shut off the ignition switch.
- Operate left brake lever to engage the parking brake and use the latch to keep the left lever applied to maintain the brake status.



Parking on a slope

WARNING

POTENTIAL HAZARD

Parking on a hill or other incline.

WHAT CAN HAPPEN

The ATV could roll out of control, increasing the chance of an accident.

HOW TO AVOID THE HAZARD

Avoid parking on hills or other inclines.

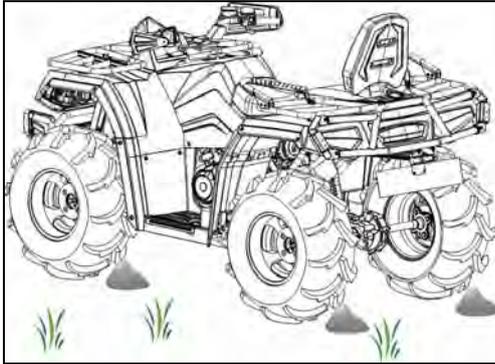
If you have to park on an incline, place the machine transversely across the incline, apply the parking brake, and block the front and rear wheels with rocks or other objects.

Do not park the ATV at all on hills that are so steep you could not walk up them easily.

1. Bring the ATV to a stop by applying the brakes.
2. Shift the brave select lever into “N” position.
3. Then turn the ignition switch off.
4. Operate the left brake lever to apply the brake and use the latch to keep the left lever applied.
5. Put rocks or wedge-shaped pieces of wood under the downhill side of the tires to ensure that the ATV will not slide on the hillside unexpectedly.



6-8 Operation



Vehicle break-in

The break-in period for your new ATV vehicle is the first 25 hours of operation, or the time it takes to use the first three full tanks of gasoline.

Within the break-in period, be cautious when riding your ATV. Careful treatment of

the ATV components will result in more efficient performance and longer life.

CAUTION:

For the first three hours, if you run your engine at full throttle, the engine may overheat, which could ruin the oil seals and other operational components. Never run your engine at full throttle for the first three hours.

Only use the types of oil recommended in this manual. Other types of oil may harm the engine.

Engine break-in

There is never a more important period in the life of your ATV than the period



between zero and 25 hours.

Always read and follow the below instruction. Since the engine is brand new, you must not put an excessive load on it for the first several hours of operation.

During the first 25 hours, various parts in the engine wear and polish themselves to the correct operating tolerances.

During this period, full throttle operation or any condition which might result in excessive engine heating must be avoided.

Each full throttle acceleration should be followed with an enough rest of the engine at lower rpm, so the engine can rid itself of the temporary heat. If any abnormality is noticed during this period, consult a dealer.

0-10 hours:

Avoid continuous operation above half throttle. Allow a cooling down period of five to ten minutes after each operation. Vary the ATV speed from time to time. Do not operate it at one throttle position.

10-25 hours:

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

After break-in:

The vehicle can now be operated normally.

Braking system break-in

Applying the brakes 50 times with varying pedal force. Each of the 50 times brakes should be applied frequently during the



6-10 Operation

operation. The brake system will perform best after the break-in period.

Aggressive or overly forceful braking when the brake system is new could harm the brake pads and rotors.

Modifications

Improper installation of accessories or modifications on this ATV may result in an accident. If you plan to modify the vehicle or drive the ATV with modifications, please remember the following:

- Never modify this ATV using improper installations or accessories. All parts and accessories must be genuine or equivalent components designed for this ATV, which should be installed and used following the instructions. If you have questions, consult a ATV dealer.

Loading

Cargo or trailer can change the stability and handling of an ATV. You must use common sense and good judgment when carrying cargo or towing a trailer.

Remember the following:

- Never exceed the stated load capacity for the ATV

MAXIMUM LOADING LIMIT

•Vehicle loading limit (total weight of cargo, rider, accessories and tongue weight): 230kg (507 lbs)

•Front carrier: 20 kg (44 lbs)

•Rear carrier: 35 kg (70 lbs)

•Trailer hitch:

Pulling load (total weight of trailer and cargo): 550kgf (1,212 lbf)

Tongue weight (vertical weight on trailer hitch point):30 kgf (66 lbf)

- Load cargo on the front/rear carriers closing to the vehicle center gravity.



Center the cargo from side to side.

- Tie down cargo securely to the carriers. Make sure that the cargo in the trailer cannot move around.
- Make sure that the load does not interfere with the operation or your driving sight.
- Always ride more slowly than usual with a load. The more weight you carry, the slower you should drive. Do not use the 'H' range lever whenever you are carrying heavy loads or towing a trailer.
- Allow more braking distance. A heavier vehicle takes longer drive to stop.
- Always turn at very slow speeds.
- Avoid hills and rough terrain. Loading could affect the stability and operation of the ATV.

WARNING

POTENTIAL HAZARD

Overloading this ATV or carrying or towing cargo improperly.

WHAT CAN HAPPEN

Will cause changes in vehicle handling which could lead to an accident.

HOW TO AVOID THE HAZARD

Never exceed the stated load capacity for this ATV.

Cargo should be properly distributed and securely attached.

Reduce speed when carrying cargo or when pulling a trailer. Allow greater distances for braking.

Always follow the instructions in your Owner's Manual for carrying cargo or pulling a trailer.



7-1 Your Vehicle

DRIVING YOUR VEHICLE

This ATV is mainly for utility use, but may also be used for recreation. This section, “Riding Your ATV” provides general ATV riding instructions for recreational riding. The skills and techniques described in this section, however, are appropriate for all types of riding. Only a qualified driver should operate this ATV. All operators, including experienced ATV drivers or passengers, should carefully read and fully understand this Users Manual, and operate strictly as the manual states in order to achieve the best performance and avoid accidents.

Riding an ATV can be very enjoyable. However, always pay close attention to the safe operation on pages 2-1—2-6, the begin

warning and caution labels on the ATV.

RIDE WITH CARE AND GOOD JUDGEMENT

Get training if you are inexperienced.

Beginners should get training from a certified instructor.

Become familiar with this ATV at slow speeds first, even if you are an experienced operator. Do not attempt to operate at maximum performance until you are totally familiar with the machine’s handling and performance characteristics.



WARNING

POTENTIAL HAZARD

Operating this ATV without proper instruction.

WHAT CAN HAPPEN

The risk of an accident is greatly increased if the operator does not know how to operate the ATV properly in different situations and on different types of terrain.

Riding your ATV requires skills acquired through practice over a period of time.

Take the time to learn the basic techniques well before attempting more difficult maneuvers.

Not recommended for children under 16 years of age.

WARNING

POTENTIAL HAZARD

Failure to follow the age recommendations for this ATV.

WHAT CAN HAPPEN

Use by children of ATVs that are not recommended for their age can lead to severe injury or death of the child.

HOW TO AVOID THE HAZARD

A child under 16 should never operate an ATV with engine size greater than 90cc.



7-3 Your Vehicle



This ATV is designed to carry operator and cargo only - passengers prohibited.

WARNING

POTENTIAL HAZARD

Carrying a passenger on this ATV.

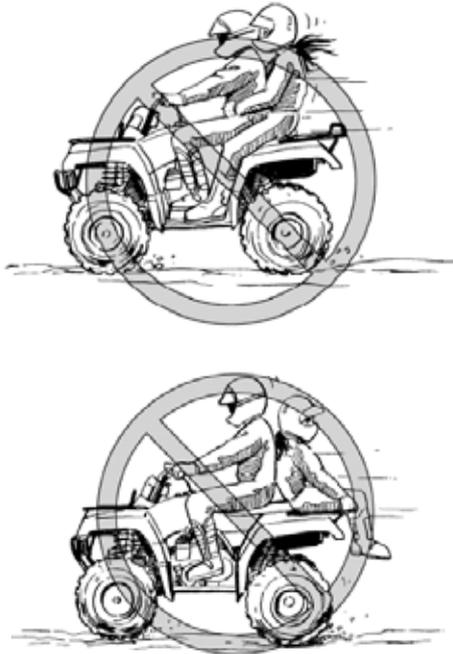
WHAT CAN HAPPEN

Greatly reduces your ability to balance and control this ATV. Could cause an accident, resulting in harm to you and/or your passenger.

HOW TO AVOID THE HAZARD

Never carry a passenger. The long seat is to allow the operator to shift position as needed during operation. It is not for carrying passengers.





Apparel

WARNING

POTENTIAL HAZARD

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

WHAT CAN HAPPEN

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

Operating without eye protection can result in an accident and increases your chances of a severe injury in the event of an accident.

Operating without protective clothing increases your chances of severe injury in the event of an accident.



7-5 Your Vehicle

HOW TO AVOID THE HAZARD

Always wear an approved motorcycle helmet that fits properly.

You should also wear:

eye protection

(goggles or face shield)

gloves

boots

long-sleeved shirt or jacket

long pants

Never operate an ATV after drinking or using drugs.

The alcohol or drugs could make the operator lose balance and control of the vehicle.



WARNING

POTENTIAL HAZARD

Operating this ATV after consuming alcohol or drugs.

WHAT CAN HAPPEN

- Could seriously affect your judgment.
- Could cause you to react more slowly.
- Could affect your balance and perception.
- Could result in an accident.

HOW TO AVOID THE HAZARD

Never consume alcohol or drugs before or while driving this ATV.

Pre-operation checks

To better prevent troubles, it is important to know condition of the vehicle well. Always check the items listed on page 5-1 before starting.

WARNING

POTENTIAL HAZARD

- Failure to inspect the ATV before operating.
- Failure to properly maintain the ATV.

WHAT CAN HAPPEN

Increases the possibility of an accident or equipment damage.

HOW TO AVOID THE HAZARD

Always inspect your ATV each time you use it to make sure the ATV is in safe operating condition. Always follow the inspection and maintenance procedures and schedules described in the Owner's Manual.



7-7 Your Vehicle

WARNING

POTENTIAL HAZARD

Operating this ATV at speeds too fast for your skills or the conditions.

WHAT CAN HAPPEN

Increases your chances of losing control of the ATV, which can result in an accident.

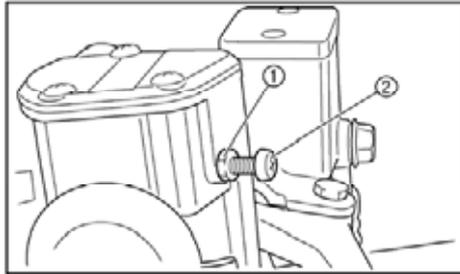
HOW TO AVOID THE HAZARD

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

Speed limiter

For riders less experienced with this model, this model is equipped with a speed limiter in the throttle lever housing. The speed limiter keeps the throttle from fully opening, even when the throttle lever is pushed to the maximum. Screwing in the adjuster limits the maximum engine power available and decreases the maximum speed of the ATV. Turning the screw in decreases top speed and turning it out increases top speed.





1. Locknut 2. Adjusting screw

Loading and accessories

Pay close attention to the operation when riding your ATV with additional loads, such as accessories or cargo. The ATV's handling and stability may be adversely affected. Always reduce the speed when carrying additional loads.

MAXIMUM LOADING LIMIT

- Vehicle loading limit: 160kg (353lb)
- Total weight of cargo, rider and accessories, and trailer hitch vertical load.
- Front carrier: 20 kg (44 lb)
- Rear carrier: 35 kg (77 lb)

WARNING

POTENTIAL HAZARD

Overloading this ATV or carrying or towing cargo improperly.

WHAT CAN HAPPEN

Could cause changes in vehicle handling which could lead to an accident.

HOW TO AVOID THE HAZARD

Never exceed the stated load capacity for this ATV.



7-9 Your Vehicle

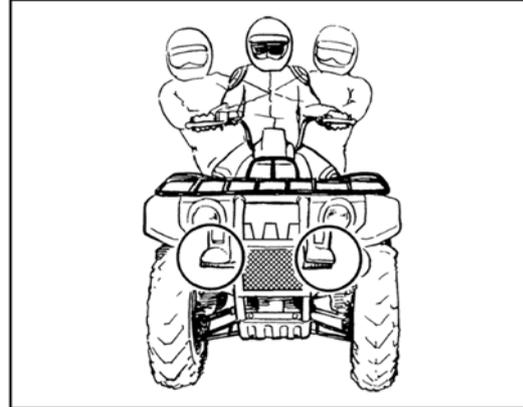
Cargo should be properly distributed and securely attached.

Reduce speed when carrying cargo or pulling a trailer. Allow greater distance for braking.

Always follow the instructions in your Owner's Manual for carrying cargo or pulling a trailer.

During operation

Always keep your feet on the footboards during operation. Otherwise your feet may contact the rear wheels.



WARNING

POTENTIAL HAZARD

Removing hands from handlebars or feet from footboards during operation.

WHAT CAN HAPPEN

Removing even one hand or foot can re-duce your ability to control the ATV or could cause you to lose your balance and fall off of the ATV. If you remove a foot from a footboard, your foot or leg may come into contact with the rear wheels, which could injure you or cause an accident.

HOW TO AVOID THE HAZARD

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

Avoid wheelies and jumping. You may lose control of the ATV or overturn.

WARNING

POTENTIAL HAZARD

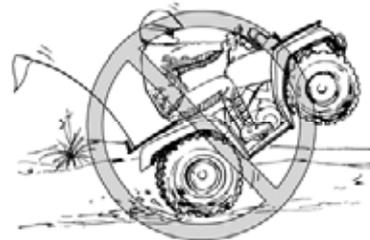
Attempting wheelies, jumps, and other stunts.

WHAT CAN HAPPEN

Increases the chance of an accident, including an overturn.

HOW TO AVOID THE HAZARD

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



7-11 Your Vehicle

Modifications

WARNING

POTENTIAL HAZARD

Operating this ATV with improper modifications.

WHAT CAN HAPPEN

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

HOW TO AVOID THE HAZARD

Never modify this ATV through improper installation or use of accessories. All parts and accessories added to this vehicle should be genuine or equivalent components designed for use on this ATV and should be installed and used according to instructions. If you have questions, consult an authorized ATV dealer.

Exhaust system

The exhaust system on the ATV is very hot during and following operation. To prevent burns, avoid touching the exhaust system. Park the ATV in a place where pedestrians or children are not likely to touch it.

WARNING

POTENTIAL HAZARD

Hot exhaust system.

WHAT CAN HAPPEN

Dry grass or brush or other combustible material accumulated around the engine area could catch fire.

Someone touching the exhaust system during or after operation could be burned.



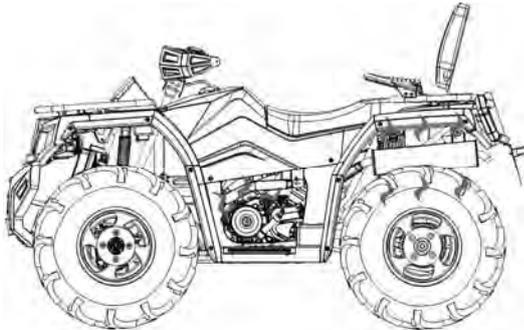
HOW TO AVOID THE HAZARD

Do not operate, idle, or park the ATV in dry grass or other dry ground cover.

Keep the engine area free of dry grass, brush, or other combustible material.

Do not touch the hot exhaust system.

Do not park the ATV in a place where others might be likely to touch it.



BE CAREFUL WHERE YOU RIDE

This ATV is designed for off-road use only. Riding on paved surfaces can cause loss of control.

WARNING

POTENTIAL HAZARD

Operating this ATV on paved surfaces.

WHAT CAN HAPPEN

ATVs are designed for off-road use only.

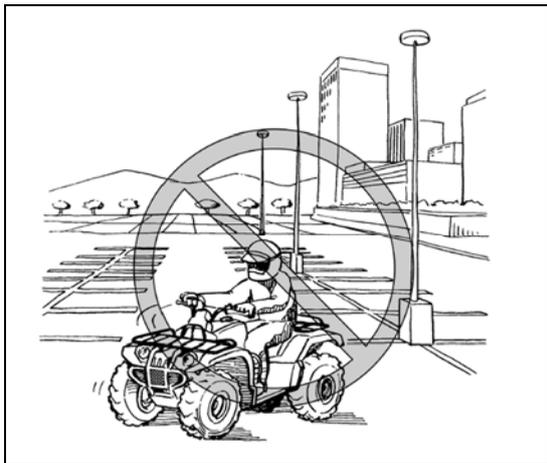
Paved surfaces may seriously affect handling and control of the ATV, and may cause the vehicle to go out of control.

HOW TO AVOID THE HAZARD

Always avoid paved surfaces, including sidewalks, driveways, parking lots and streets.



7-13 Your Vehicle



Do not ride on any public road, street, or highway.

Riding on public roads can result in collisions with other vehicles.

WARNING

POTENTIAL HAZARD

Operating this ATV on public streets, roads or highways.

WHAT CAN HAPPEN

You can collide with another vehicle.

HOW TO AVOID THE HAZARD

Never operate this ATV on any public street, road or highway, even dirt or gravel one. In many states it is illegal to operate ATVs on public streets, roads and highways.



Know the terrain where you ride. Ride cautiously in unfamiliar areas. Stay alert for holes, rocks, or roots in the terrain, and other hidden hazards which may cause the ATV to upset.

WARNING

POTENTIAL HAZARD

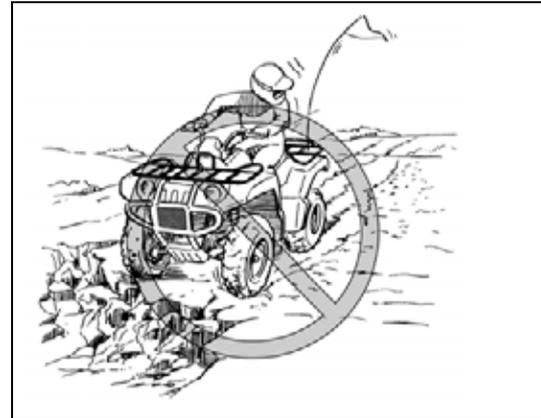
Failure to use extra care when operating this ATV on unfamiliar terrain.

WHAT CAN HAPPEN

You can come upon hidden rocks, bumps, or holes, without enough time to react. Could result in the ATV overturning or going out of control.

HOW TO AVOID THE HAZARD

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



WARNING

POTENTIAL HAZARD

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

WHAT CAN HAPPEN

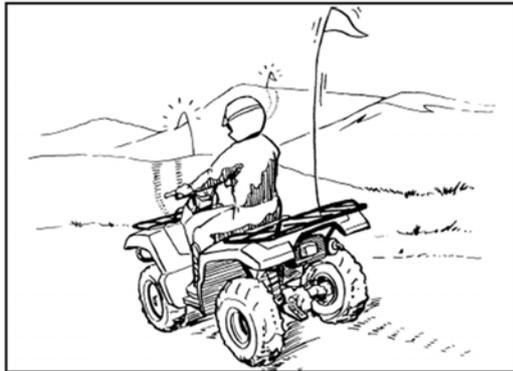
Could cause loss of traction or vehicle control, which could result in an accident, including an overturn.

HOW TO AVOID THE HAZARD

Do not 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.



When riding in an area where you might not easily be seen, such as desert terrain, mount a caution flag on the ATV. DO NOT use the flag pole bracket as a trailer hitch.



WARNING

POTENTIAL HAZARD

Operating in areas where you might not be seen by other off-road vehicles.

WHAT CAN HAPPEN

You could be in a collision. You could be injured.

HOW TO AVOID THE HAZARD

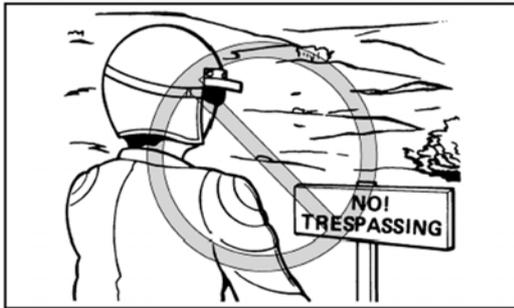
Always mount a caution flag on the ATV to make you more visible. Watch carefully for other vehicles.



7-17 Your Vehicle

Do not ride in areas posted “no trespassing” .

Do not ride on private property without getting permission.



Select a large, flat area off-road to become familiar with your ATV. Make sure that this area is free of obstacles and other riders. You should practice control of the throttle, brakes, shifting procedures, and turning techniques in this area before trying more difficult terrain. Always avoid riding on paved surfaces: the ATV is designed for off-road use only, and handling maneuvers are more difficult to perform on pavement.

Remember that the engine and exhaust pipe will be hot when riding and afterwards; do not allow skin or clothing to come in contact with these components.

With the engine idling, return the starter (choke) to the closed position, shift the drive select lever into the forward position, and



then release the parking brake. Apply the throttle slowly and smoothly. The centrifugal clutch will engage and you will start to accelerate. If the throttle is applied too abruptly, the front wheels may lift off the ground resulting in a loss of directional control. Avoid higher speeds until you are thoroughly familiar with the operation of your ATV.

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

Improper use of the brakes can cause the tires to lose traction, reducing control and increasing the possibility of an accident.

TURNING YOUR ATV

To achieve maximum traction while riding off-road in 2WD or 4WD, the two rear wheels turn together at the same speed. Furthermore, when riding in 4WD-LOCK the front wheels also turn together at the same speed. Therefore, unless the wheel on the inside of the turn is allowed to slip or lose some traction, the ATV will resist turning. A special turning technique must be used to allow the ATV to make turns quickly and easily. It is essential that this skill be learned first at low speed.



7-19 Your Vehicle

WARNING

POTENTIAL HAZARD

Turning improperly.

WHAT CAN HAPPEN

ATV could go out of control, causing a collision or overturn.

HOW TO AVOID THE HAZARD

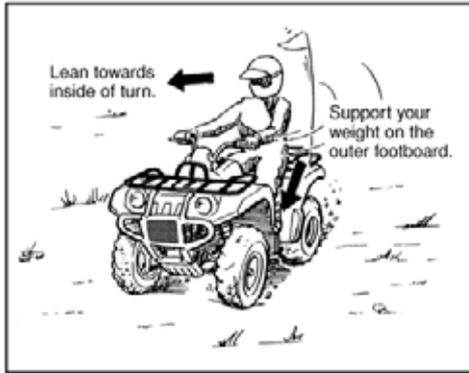
Always follow proper procedures for turning as described in this Owner's Manual.

Practice turning at low speeds before attempting to turn at faster speeds. Do not turn at speeds too fast for your skills or the conditions.

Operate at a slow speed and allow extra time and distance for maneuvers when in 4WD-LOCK.

As you approach a curve, slow down and begin to turn the handlebars in the desired direction. As you do so, put your weight on the footboard to the outside of the turn (opposite your desired direction) and lean your upper body into the turn. Use the throttle to maintain an even speed through the turn. This maneuver will let the wheel on the inside of the turn slip slightly, allowing the ATV to make the turn properly.





This procedure should be practiced at slow speed many times in a large off-road area with no obstacles. If an incorrect technique is used, your ATV may continue to go straight. If the ATV doesn't turn, come to a stop and then practice the procedure again. If the riding surface is slippery or loose, it may help

to position more of your weight over the front wheels by moving forward on the seat.

Once you have learned this technique you should be able to perform it at higher speeds or in tighter curves.

Improper riding procedures such as abrupt throttle changes, excessive braking, incorrect body movements, or too much speed for the sharpness of the turn may cause the ATV to tip. If the ATV begins to tip over to the outside while negotiating a turn, lean more to the inside. It may also be necessary to gradually let off on the throttle and steer to the outside of the turn to avoid tipping over. Remember: Avoid higher speeds until you are thoroughly familiar with the operation of your ATV.



7-21 Your Vehicle

CLIMBING UPHILL

Use proper riding techniques to avoid vehicle overturns on hills. Be sure that you can maneuver your ATV well on flat ground before attempting any incline and then practice riding first on gentle slopes. Try more difficult climbs only after you have developed your skill. In all cases avoid inclines with slippery or loose surfaces, or obstacles that might cause you to lose control.

WARNING

POTENTIAL HAZARD

Operating on excessively steep hills.

WHAT CAN HAPPEN

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

HOW TO AVOID THE HAZARD

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

It is important when climbing a hill to make sure that your weight is transferred forward on the ATV. This can be accomplished by leaning forward and, on steeper inclines,



standing on the footboards and leaning forward over the handlebars.

WARNING

POTENTIAL HAZARD

Climbing hills improperly.

WHAT CAN HAPPEN

Could cause loss of control or cause the ATV to overturn.

HOW TO AVOID THE HAZARD

Always follow proper procedures for climbing hills as described in this Owner's Manual.

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.

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.



7-23 Your Vehicle

If you are climbing a hill and you find that you have not properly judged your ability to make it to the top, you should turn the ATV around while you still have forward motion (provided you have the room to do so) and go down the hill.

WARNING

POTENTIAL HAZARD

Improperly crossing hills or turning on hills.

WHAT CAN HAPPEN

Could cause loss of control or cause the ATV to overturn.

HOW TO AVOID THE HAZARD

Never attempt to turn the ATV around on any hill until you have mastered the turning technique as described in the Owner's Manual

on level ground. Be very careful when turning on any hill. Avoid crossing the side of a steep hill if possible.

When crossing the side of a hill:

Always follow proper procedures as described in the Owner's Manual.

Avoid hills with excessively slippery or loose surfaces.

Shift your weight to the uphill side of the ATV.

OK



If your ATV has stalled or stopped and you believe you can continue up the hill, restart carefully to make sure you do not lift the front wheels which could cause you to lose control. If you are unable to continue up the hill, dismount the ATV on the uphill side. Physically turn the ATV around and then descend the hill.

If you start to roll backwards, DO NOT apply either brake abruptly. If you are in 2WD, apply only the front brake. When this ATV is in 4WD or 4WD-LOCK, all wheels (front and rear) are interconnected by the drive train. This means that applying either the front brake or the rear brake will brake all wheels. When descending hills, using either brake lever or the brake pedal will brake the wheels on the downhill side. Avoid sudden

application of either the front or rear brake because the wheels on the uphill side could come off the ground. The ATV could easily tip over backwards. Apply both the front and rear brakes gradually, or dismount the ATV immediately on the uphill side.



WARNING

POTENTIAL HAZARD

Stalling, rolling backwards or improperly dismounting while climbing a hill.

WHAT CAN HAPPEN

Could result in ATV overturning.

HOW TO AVOID THE HAZARD

Use proper gear and maintain steady speed when climbing a hill.

If you lose all forward speed:

Keep weight uphill.

Apply the brakes.

Shift to the parking position “P” after you are stopped.

If you begin rolling backwards:

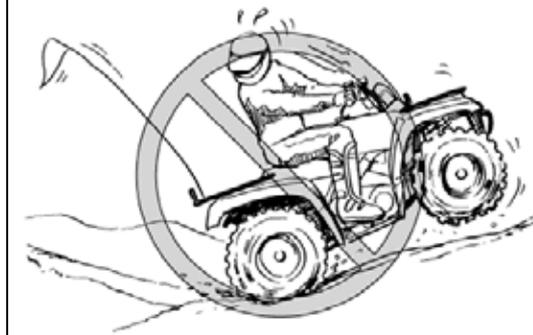
Keep weight uphill.

2WD: Never apply the rear brake while rolling backwards. Apply the front brake.

4WD or 4WD-LOCK: Apply both front and rear brakes gradually.

When fully stopped, shift to the parking position “P” .

Dismount on uphill side or to a side if pointed straight uphill. Turn the ATV around and remount, following the procedure described in the Owner’s Manual.



RIDING DOWNHILL

When riding your ATV downhill, shift your weight as far to the rear and uphill side of the ATV as possible. Move back on the seat and sit with your arms straight. Engine compression will do most of the braking for you. For maximum engine compression braking effect, change to 4WD or 4WD-LOCK before beginning to descend the hill. Improper braking may cause a loss of traction. Use caution while descending a hill with loose or slippery surfaces. Braking ability and traction may be adversely affected by these surfaces. Improper braking may also cause a loss of traction.

When this ATV is in 4WD or 4WD-LOCK, all wheels (front and rear) are interconnected by the drive train. This means that applying either the front brake or the rear brake will brake all wheels. When descending hills, using either brake lever or the brake pedal will brake the wheels on the downhill side. Avoid sudden application of either the front or rear brake because the wheels on the uphill side could come off the ground. Apply both the front and rear brakes gradually.

Whenever possible, ride your ATV straight downhill. Avoid sharp angles which could allow the ATV to tip or roll over. Carefully choose your path and ride no faster than you will be able to react to obstacles which may



7-27 Your Vehicle

appear.

WARNING

POTENTIAL HAZARD

Going down a hill improperly.

WHAT CAN HAPPEN

Could cause loss of control or cause the ATV to overturn.

Always follow proper procedures for going down hills as described in this Owner's Manual. Note: a special technique is required when braking as you go down a hill.

HOW TO AVOID THE HAZARD

Always 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.



CROSSING A SLOPE

Traversing a sloping surface on your ATV requires you to properly position your weight to maintain proper balance. Be sure that you have learned the basic riding skills on flat ground before attempting to cross a sloping surface. Avoid slopes with slippery surfaces or rough terrain that may upset your balance. As you travel across a slope, lean your body in the uphill direction. It may be necessary to correct the steering when riding on loose surfaces by pointing the front wheels slightly uphill. When riding on slopes be sure not to make sharp turns either up or down hill.

If your ATV does begin to tip over, gradually steer in the downhill direction if there are no obstacles in your path. As you regain proper

balance, gradually steer again in the direction you wish to travel.

WARNING

POTENTIAL HAZARD

Improperly crossing hills or turning on hills.

WHAT CAN HAPPEN

Could cause loss of control or cause the ATV to overturn.

HOW TO AVOID THE HAZARD

Never attempt to turn the ATV around on any hill until you have mastered the turning technique as described in the Owner's Manual on level ground. Be very careful when turning on any hill.

Avoid crossing the side of a steep hill if possible.

When crossing the side of a hill:



7-29 Your Vehicle

Always follow proper procedures as described in the Owner's Manual.

Avoid hills with excessively slippery or loose surfaces. Shift your weight to the uphill side of the ATV.



CROSSING THROUGH SHALLOW WATER

The ATV can be used to cross slow moving, shallow water of up to a maximum of 35 cm (14 inches) in depth. Before entering the water, choose your path carefully. Enter where there is no sharp drop off, and avoid rocks or other obstacles which may be slippery or upset the ATV. Drive slowly and carefully.

WARNING

POTENTIAL HAZARD

Operating this ATV through deep or fast flowing water.

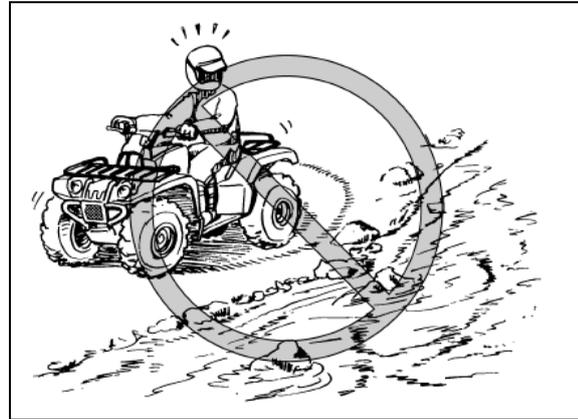
WHAT CAN HAPPEN

Tires may float, causing loss of traction and loss of control, which could lead to an accident.

HOW TO AVOID THE HAZARD

Never operate this ATV in fast flowing water or in water deeper than that specified in your Owner's Manual.

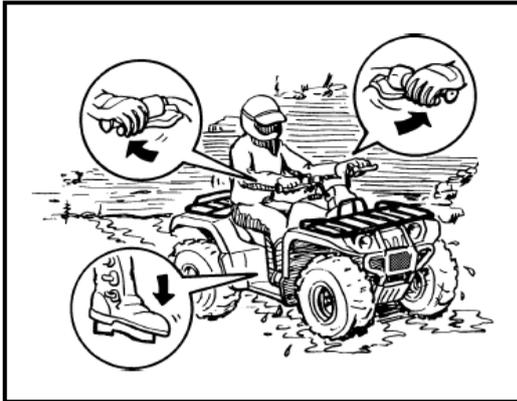
Remember that wet brakes may have reduced stopping ability. Test your brakes after leaving the water. If necessary, apply them several times to let friction dry out the linings.



Test your brakes after leaving the water. Do not continue to ride your ATV without verifying that you have regained proper braking ability.



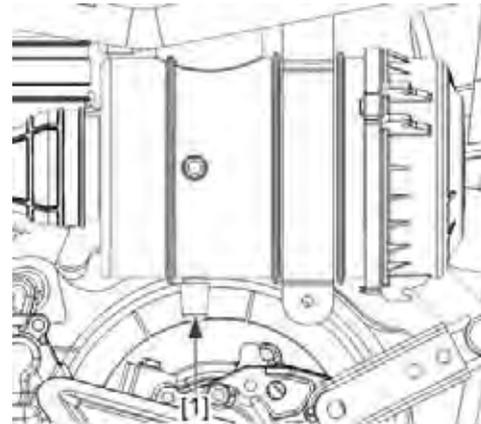
7-31 Your Vehicle



CAUTION:

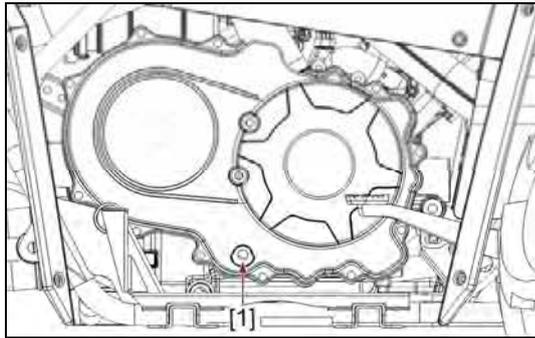
After riding your ATV in water, be sure to drain water in the components by removing the check hose plugs at the bottom of the air filter case, the V-belt cooling duct, the gear shift lever box. Also, remove the V-belt case drain plug to drain water that may have accumulated.

Wash the ATV in clear water if it has been operated in salt water or muddy conditions.



1. Air filter case check hose





1. V-belt case drain plug

RIDING OVER ROUGH TERRAIN

Riding over rough terrain should be done with caution. Look out for obstacles which could cause damage to the ATV or could lead to an upset or accident. Be sure to keep your feet firmly mounted on the footboards at all

times.

Avoid jumping the ATV as loss of control and damage to the ATV may result.

WARNING

POTENTIAL HAZARD

Improperly operating over obstacles.

WHAT CAN HAPPEN

Could cause loss of control or a collision.

Could cause the ATV to overturn.

HOW TO AVOID THE HAZARD

Before operating in a new area, check for obstacles.

Never attempt to ride over large obstacles, such as large rocks or fallen trees.

When you go over obstacles, always follow proper procedures as described in the Owner's Manual.

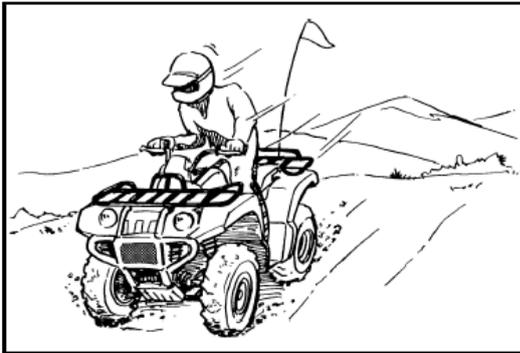


7-33 Your Vehicle

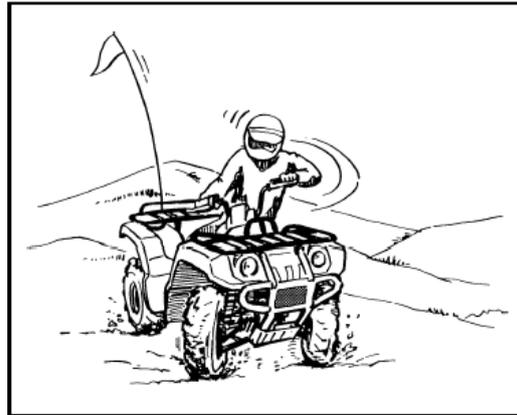
SLIDING AND SKIDDING

Care should be used when riding on loose or slippery surfaces since the ATV may slide. If unexpected and uncorrected, sliding could lead to an accident.

To reduce the tendency for the front wheels to slide in loose or slippery conditions, positioning your weight over the front wheels will sometimes help.



If the rear wheels of your ATV start to slide sideways, control can usually be regained (if there is room to do so) by steering in the direction of the slide. Applying the brakes or accelerating is not recommended until you have corrected the slide.



With practice, over a period of time, skill at controlled sliding can be developed. The terrain should be chosen carefully before attempting such maneuvers, since both stability and control are reduced. Bear in mind that sliding maneuvers should always be avoided on extremely slippery surfaces such as ice, since all control may be lost.

WARNING

POTENTIAL HAZARD

Skidding or sliding improperly.

WHAT CAN HAPPEN

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

HOW TO AVOID THE HAZARD

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.

CONCLUSION:

1. If your ATV doesn't turn when you want it to:

- Bring the ATV to a stop and practice the turning maneuvers again. Be sure you are putting your weight on the footboard to the outside of the turn. Position your weight over the front wheels for better control.

2. If your ATV begins to tip while turning:

- Lean more into the turn to regain balance.
- If necessary, gradually let off the throttle



7-35 Your Vehicle

and/ or steer to the outside of the turn.

3. If your ATV starts to slide sideways:

- Steer in the direction of the slide if you have the room.
- Applying the brakes or accelerating is not recommended until you have corrected the slide.

4. If your ATV can't make it up a hill you are trying to climb:

- Turn the ATV around if you still have forward speed. If not, stop, dismount on the uphill side of the ATV and physically turn the ATV around.
- If the ATV starts to slip backwards DO NOT USE THE REAR BRAKE - the ATV may tip over on top of you.
- Dismount the ATV on the uphill side.

5. If your ATV is traversing a sloping surface:

- Be sure to ride with your weight positioned towards the uphill side of the ATV to maintain proper balance.
- If the ATV starts to tip, steer down the hill (if there are no obstacles in your way) to regain balance.
- If you discover that the ATV is going to tip over, dismount on the uphill side.

6. If your ATV encounters shallow water:

- Ride slowly and carefully through slow moving water, watching for obstacles.
- Be sure to let water drain from the ATV and **CHECK YOUR BRAKES FOR PROPER OPERATION** when you come out of the water.



Periodic Maintenance And Adjustment

Paying attention to periodic inspection, adjustment and lubrication will keep your ATV always in a safe and good condition.

WARNING

Turn off the engine when performing maintenance unless otherwise specified.
Have a dealer perform service if you are not familiar with servicing an ATV.

WARNING

POTENTIAL HAZARD

Operating this ATV with improper modifications.

WHAT CAN HAPPEN

Improper installation of accessories or modification of this vehicle may cause changes in handling which may cause an accident.

HOW TO AVOID THE HAZARD

Never modify this ATV using improper installation or use of accessories. All parts and accessories added to this vehicle should be components designed for this ATV and should be installed and used following instructions. If you have questions, consult an authorized ATV dealer.



8-2 Periodic Maintenance and Adjustment

Periodic maintenance chart for the emission control system

- For an ATV, which is not equipped with an odometer or an hour meter, follow the monthly maintenance intervals.
- For an ATV, which is equipped with an odometer or an hour meter, follow the km (miles) or hours maintenance intervals.
- If the ATV isn't used for a long period of time, the monthly maintenance intervals should be followed.
- A dealer should perform items marked with an asterisk, as they require special tools, data and technical skills.

ITEM	ROUTINE	Whichever Comes first ⇒	INITIAL			EVERY		
			Month	1	3	6	6	12
			Km (Miles)	320 (198)	1,200 (745)	2,400 (1450)	2,400 (1450)	4,800 (2900)
Hours	20	75	150	150	300			
Valves*	<ul style="list-style-type: none"> • Check valve clearances. • Adjust if necessary. 		○		○	○	○	
Spark plug	<ul style="list-style-type: none"> • Check the plug condition. • Adjust the gap and clean. • Replace if necessary. 		○	○	○	○	○	
Air filter element	<ul style="list-style-type: none"> • Clean. • Replace if necessary. 		Every 20-40 hours (More often in wet or dusty areas.)					
Crankcase breather system*	<ul style="list-style-type: none"> • Check breather hose for cracks or damage. • Replace if necessary. 				○	○	○	
Exhaust system*	<ul style="list-style-type: none"> • Check for leaks. • Tighten if necessary. • Replace gasket(s) if necessary. 				○	○	○	
Spark arrester	<ul style="list-style-type: none"> • Clean. 				○	○	○	
Sensor	<ul style="list-style-type: none"> • Clean. 		To clean for each 500km (312mi)					
Fuel line*	<ul style="list-style-type: none"> • Check fuel hose for cracks or damage. • Replace if necessary. 				○	○	○	



Periodic Maintenance and Adjustment 8-3

General maintenance and lubrication chart

ITEM	ROUTINE	Whichever Comes first ⇒	INITIAL			EVERY		
			Month	1	3	6	6	12
			Km (Mi)	320 (200)	1,200 (750)	2,400 (1,500)	2,400 (1,500)	4,800 (3,000)
			Hours	20	75	150	150	300
Engine oil	<ul style="list-style-type: none"> Replace (Warm engine before draining.) 		○		○	○	○	
EFI	<ul style="list-style-type: none"> Use EFI diagnostic apparatus for inspection 		○		○	○	○	
catalyzer	<ul style="list-style-type: none"> Check the exhaust Replace the muffler if necessary 				○		○	
oil filter	<ul style="list-style-type: none"> Check for leaks around the seal Replace it if necessary 		○	○	○	○	○	
Engine filter element	<ul style="list-style-type: none"> Clean Replace if necessary. 		○		○		○	
Engine oil strainer	<ul style="list-style-type: none"> Clean. 		○		○		○	
Brakes*	<ul style="list-style-type: none"> Check operation/fluid leaks/See NOTE. Correct if necessary. 		○	○	○	○	○	
Clutch*	<ul style="list-style-type: none"> Check operation. Adjust if necessary. 		○		○	○	○	
Wheels*	<ul style="list-style-type: none"> Check balance/damage/run out. Replace if necessary. 		○		○	○	○	
Wheels bearings*	<ul style="list-style-type: none"> Check bearing assemblies for looseness/damage. Replace if damaged. 		○		○	○	○	
Steering system*	<ul style="list-style-type: none"> Check operation. Repair if damaged. Check toe-in. Adjust if necessary. 		○	○	○	○	○	



8-4 Periodic Maintenance and Adjustment

ITEM	ROUTINE	Whichever Comes first ⇒	INITIAL			EVERY		
			Month	1	3	6	6	12
			Km (Mi)	320 (200)	1,200 (750)	2,400 (1,500)	2,400 (1,500)	4,800 (3,000)
			Hours	20	75	150	150	300
Front and rear suspension*	<ul style="list-style-type: none"> • Check operation. • Correct if necessary. 				○		○	
Upper and lower arm pivot and steering shaft*	<ul style="list-style-type: none"> • Lubricate every 6 months with lithium-soap-based grease. 			○	○		○	
Rear arm pivot*	<ul style="list-style-type: none"> • Lubricate every 6 months with lithium-soap-based grease. 			○	○		○	
Fittings and fastener*	<ul style="list-style-type: none"> • Check all chassis fittings and fasteners. • Correct if necessary. 		○	○	○	○	○	
Lights and a witches*	<ul style="list-style-type: none"> • Check operation. • Adjust headlight beams. 		○	○	○	○	○	
EFI	<ul style="list-style-type: none"> • Use EFI diagnostic apparatus for inspection 		○	○	○	○	○	

★ Since this may require special tools, data and technical skills, have a dealer perform this service.

NOTE:

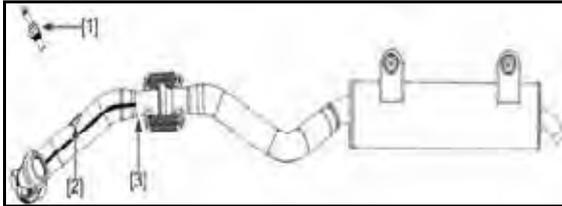
- Recommended brake fluid: DOT 4
- Brake fluid replacement:
- When disassembling the master cylinders or calipers, replace the brake fluid.
- Periodically check the brake fluid level and add fluid as required.
- For the inner parts of the master cylinders and calipers, replace the oil seals every two years.
- Replace the brake hoses every four years, or if cracked or damaged.



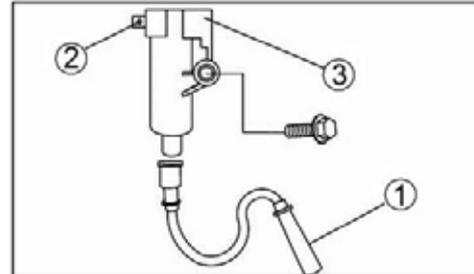
EFI System

An EFI system is different from a carburetor engine. An EFI engine is composed of advanced parts such as an ECU, EFI wires, sensors and an implementation system.

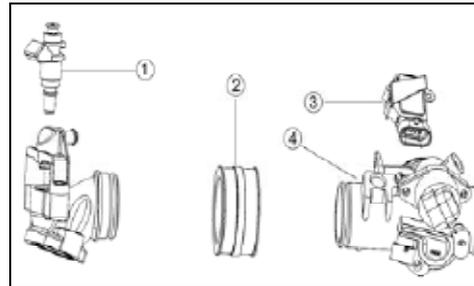
Parts are shown below:



- [1]. Oxygen sensor
- [2]. Oxygen sensor threaded sleeve
- [3]. Exhaust pipe

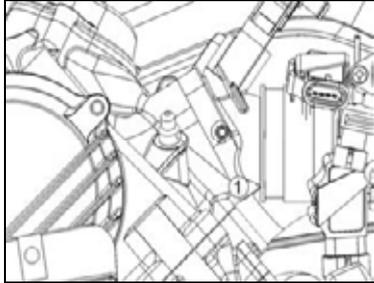


- 1. high voltage wire
- 2. ignition signal plug
- 3. ignition coil

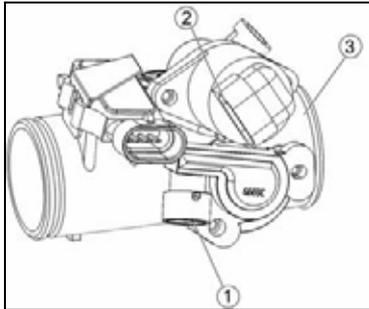


- 1. fuel injector
- 2. elbow pipe, inlet pipe
- 3. intake air temperature sensor/ pressure sensor
- 4. duct, dampers

8-6 Periodic Maintenance and Adjustment



1. water temperature sensor



1. air damper degree sensor 2. idle speed step motor
3. air damper

Throttle Valve

To adjust the inlet airflow.

Idle control step motor

To stabilize the idle speed control

Fuel Injection Tap

To inject the fuel into the cylinder.

Inlet temperature sensor

To monitor the air intake temperature to the engine, the ECU automatically adjusts the fuel injection according to the temperature.

Inlet pressure sensor

To monitor the inner pressure of the inlet line, the operation of the engine is determined both by the throttle valve's angle and the inlet line pressure. The ECU adjusts the injectors based on the inner pressure and the angle of the throttle valve.

Periodic Maintenance and Adjustment 8-7

The output power and torque are adjusted by changing the injection quantity.

Water Temperature Sensor

This sensor is used to monitor the water temperature. Based on the water temperature, the ECU can automatically adjust the injection quantity to assure the stability of the engine.

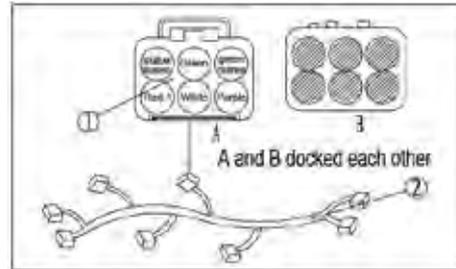
Ignition signal

The generator provides the ECU with the proper ignition timing signal.

At the center of the EFI system, this model adopts a specially designed microcomputer chip controller, which controls the injection quantity by calculating the information gathered by the sensors. This enables the engine to operate with better fuel consumption and less emissions.

EFI system examination

If the EFI system fails, the associated fault code is shown on the display panel. You can diagnose the system using an EFI scanner (purchased from your dealer). This scanner provides detailed fault code information. An owner's manual for the fault code is available.



1. Diagnostic apparatus 2. EFI cables

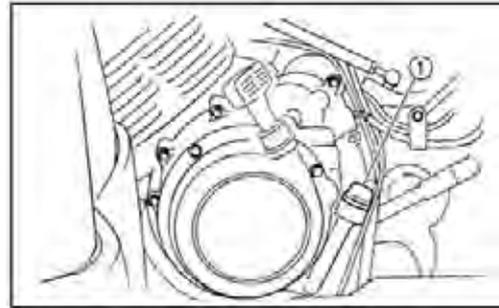
8-8 Periodic Maintenance and Adjustment

Engine oil and oil filter

Always check the engine oil level before each starting. In addition, the oil and the oil filter must be changed and replaced at the intervals specified in the periodic maintenance and lubrication chart.

Checking the engine oil level

1. Place the ATV on a level surface.
2. Start the engine, warm it up for several minutes, and then turn it off.
3. Wait a few minutes until the oil settles.
4. Remove the engine oil filler cap and clean the dipstick.
5. Insert the dipstick into the receptacle (no need to tighten), then take the dipstick out to check the oil level.

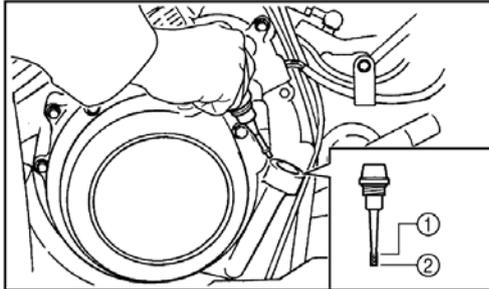


1. Engine oil filler cap

NOTE:

The engine oil should be between the minimum and maximum level marks.

Periodic Maintenance and Adjustment 8-9



1. Maximum level mark 2. Minimum level mark

6. If the engine oil is at or below the minimum level mark, add sufficient oil of the recommended type to correct level.

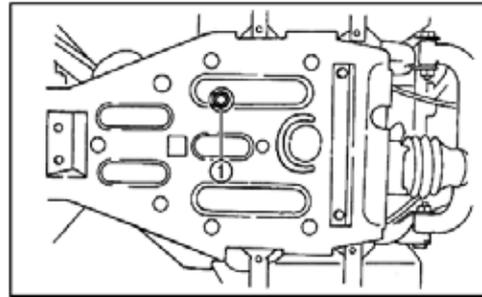
7. Insert the dipstick into the oil filler hole, and then tighten the oil filler cap.

Replacing the engine oil (with or without oil filter cartridge replacement)

1. Start the engine. Warm it up for several minutes, and then turn it off.

2. Place an oil pan under the engine to collect the used oil.

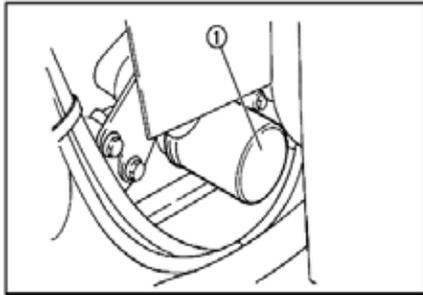
3. Remove the engine oil drain bolt to drain the oil from the crankcase.



[1]. Engine oil drain bolt

4. Remove the oil filter cap with an oil filter wrench.

8-10 Periodic Maintenance and Adjustment



1. Engine oil filter 2. Oil filter B

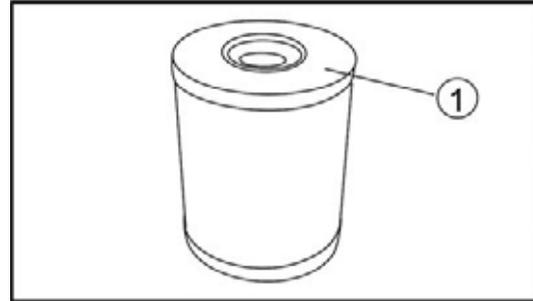
CAUTION: _____

If there is no need to replace the oil filter, skip step 4-6.

5. Apply a light coat of engine oil to the O-ring of the new oil filter.

CAUTION: _____

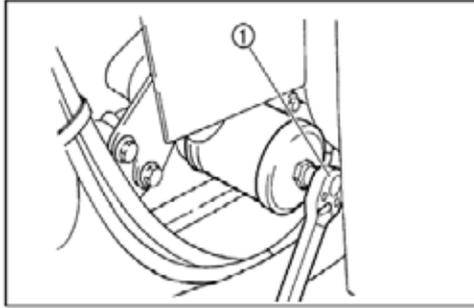
Make sure to select the correct style filter with the proper sized O-ring.



1. O-ring

6. Install the new oil filter with an oil filter wrench, and then tighten it to the specified torque with a torque wrench.

Periodic Maintenance and Adjustment 8-11



1. Torque Bolt

Tightening torque:
Oil filter cartridge:
17 Nm (1.7m·kgf, 12.38ft·lbf)

7. Install the drain bolt and tighten it to the specified torque.

Tightening torque:
oil drain bolt:
30 Nm (3.0m·kgf, 21.85ft·lbf)

8. Fill with the specified amount of the recommended oil. Replace the dipstick and tighten it.

Recommended oil:
Oil quantity:
Oil filler not replaced:
1.9L (1.67 Imp qt, 1.97 US qt)
Oil filler replaced:
2.0L (1.76 Imp qt, 2.08 US qt)

CAUTION:

To avoid clutch slip (since the engine oil also lubricates the clutch), do not mix any chemical additives. Do not use oils with a

8-12 Periodic Maintenance and Adjustment

diesel specification of “CD” or oils of a lower quality than specified. Make sure that no foreign material enters into the crankcase when checking or filling with oil.

9. Start the engine and warm it up for several minutes. While warming up, check for oil leaks. If oil leaks are found, turn the engine off immediately and check for the source.

10. Turn the engine off, and then check the oil level and fill it if necessary.

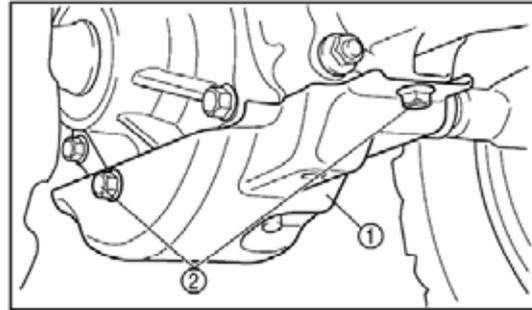
Final gear oil

The final gear case must be checked for oil leaks before each ride. If any leaks are found, have a dealer check and repair the ATV.

Replacing the final gear oil

1. Place the ATV on a level surface.

2. Remove the final gear case cover by removing the bolts.



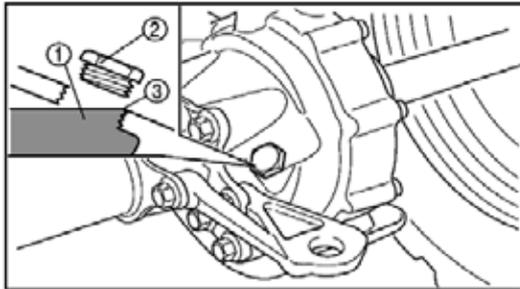
1. Final gear case cover

2. Bolt (×2)

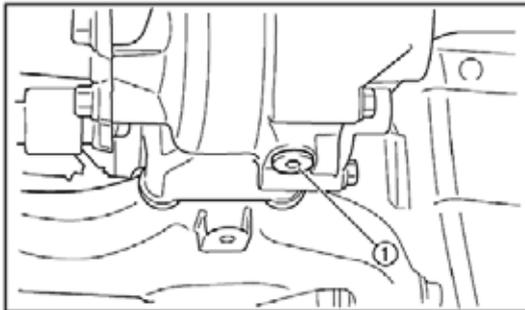
3. Place a pan under the final gear case to collect the used oil.

4. Remove the oil filler bolt and the drain bolt to drain the oil.

Periodic Maintenance and Adjustment 8-13



1. Final gear oil 2. Final gear oil filler bolt 3. Proper oil level



1. Final gear oil drain bolt

5. Install the drain bolt and tighten it to the specified torque..

Tightening torque:

Final gear oil drain bolt:
23 Nm(2.3m·kgf, 17ft·lbf)

6. Fill the final gear case with the specified amount of the recommended oil.

Recommended oil:

SAE 90 API GL-5 gear oil

Oil quantity:

0.25 L (0.22 Imp qt, 0.26 US qt)

CAUTION:

Be sure that no foreign material enters the final gear case when you check or change oil.

7. Install the filler bolt and tighten it to the specified torque.

8-14 Periodic Maintenance and Adjustment

Tightening torque:

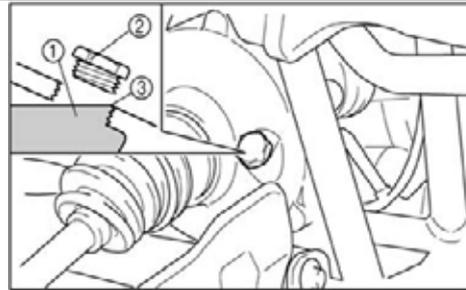
Final gear oil filler bolt:
23 Nm(2.3m·kgf, 17ft·lbf)

8. Check for oil leaks. If oil leaks are found, check for the source of the leak.

Differential gear oil

Checking the differential gear oil

1. Place the ATV on a level surface.
2. Remove the differential gear oil filler bolt and check the oil level. It should be up to the brim of the filler hole. If the level is low, add sufficient oil of the recommended type level to correct level.



1. Differential gear oil
2. Differential gear oil filler bolt
3. Correct oil level

CAUTION:

Be sure no foreign material enters the final gear case.

3. Install the differential gear oil filler bolt, and then tighten it to the specified torque.

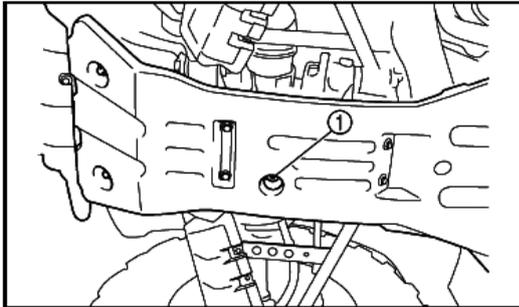
Tightening torque:

Differential gear oil filler bolt:
23 Nm(2.3m·kgf, 17 ft·lbf)



Replacing the differential gear oil

1. Place the ATV on a level surface.
2. Place a pan under the differential gear case to collect the used oil.
3. Remove the differential gear oil filler bolt and drain bolt to drain the oil.



[1]. Differential gear oil drain bolt

4. Install the differential gear oil drain bolt and tighten it to the specified torque.

Tightening torque:

Differential gear oil drain bolt:
10 Nm (1.0m·kgf, 7.39 ft·lbf)

5. Fill the differential gear case with the recommended oil.

Recommended oil:

SAE 90 API GL-5 gear oil

Oil quantity:

0.28 L (0.25 Imp qt, 0.29 US qt)

CAUTION:

Be sure no foreign material enters the differential gear case.

Install the differential gear oil filler bolt, and then tighten it to the specified torque.

8-16 Periodic Maintenance and Adjustment

Tightening torque:

Differential gear oil filler bolt:
23 Nm (2.3m·kgf, 17 ft·lbf)

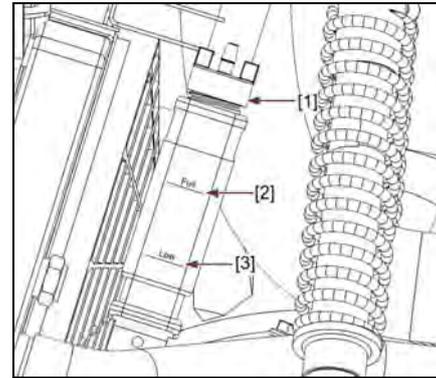
6. Check for oil leaks. If an oil leak is found, check for the source.

Cooling system

1. Place the ATV on a level surface.
2. Check the coolant level in the coolant reservoir when the engine is cold, as the coolant level will vary with engine temperature.

NOTE:

The coolant should be between the minimum and maximum level marks.



1. Coolant reservoir tank cap
2. Maximum level mark
3. Minimum level mark

3. If the coolant is at or below the minimum level mark, remove the reservoir cap. Add coolant to the maximum level mark, replace the reservoir cap, and install the side panel.

Coolant reservoir capacity
(up to the maximum level mark):
0.3 L(0.26 Imp qt, 0.31 US qt)



CAUTION:

Hard water or salt water is harmful to the engine. You may use soft water if you cannot get distilled water.

CAUTION:

If soft water is added, have a dealer check the antifreeze content of the coolant as soon as possible.

The radiator fan operation is completely automatic. It is switched on or off based on the coolant temperature in the radiator.

Coolant replacement

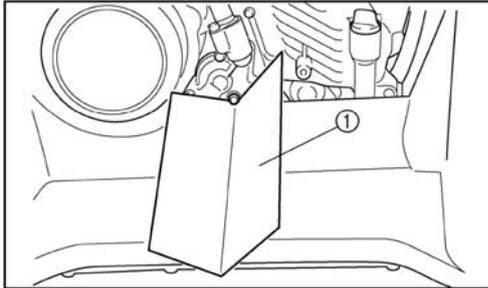
WARNING

Removing the radiator cap when the engine and radiator are still hot, you could be burned by hot fluid and steam blown out under pressure.

1. Place the ATV on a level surface.
2. Place a pan under the engine, and then remove the coolant drain bolt. (Use a trough or a similar object as shown to prevent coolant from spilling on the footrest.)

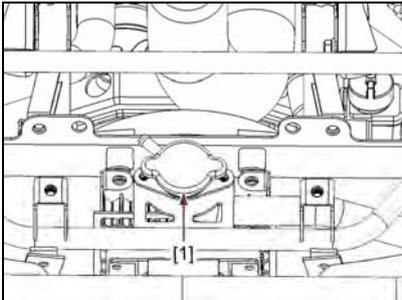


8-18 Periodic Maintenance and Adjustment



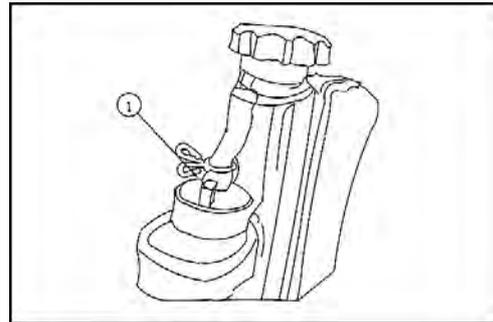
[1]. Trough

3. Remove the radiator cap.



[1]. the radiator cap.

4. Remove the coolant reservoir cap.
5. Disconnect the hose on the coolant reservoir side, and then drain the coolant from the coolant reservoir.



[1].Reservoir drain hose

6. After draining the coolant, thoroughly flush the cooling system with clean tap water.
7. Replace the coolant drain bolt washer if it is damaged. Install the coolant drain bolt,

Periodic Maintenance and Adjustment 8-19

and then tighten it to the specified torque.

Tightening torque:

Coolant drain bolt:

10 Nm(1.0m·kgf, 7.39 ft·lbf)

8. Install the coolant reservoir hose.
9. Pour the recommended coolant into the reservoir to the maximum level mark.
10. Pour the recommended coolant into the radiator until it is full, and then install the radiator cap.

Recommended antifreeze:

High quality ethylene glycol antifreeze

Containing corrosion inhibitors for aluminum engines.

Antifreeze and water mixing ratio: 1:1

Total amount:

1.8 L (1.58 Imp qt, 1.87 US qt)

Coolant reservoir capacity

(Up to the maximum level mark):

0.3 L (0.26 Imp qt, 0.31 US qt)

CAUTION:

Hard water or salt water is harmful to the engine. You may use soft water if you cannot get distilled water.

11. Start the engine and let it idle for several minutes. Stop the engine, and then check the coolant level in the radiator. If it is low, add more coolant until it reaches the top of the radiator.

12. Check for coolant leaks.

NOTE:

If any leaks are found, have a dealer check the cooling system.

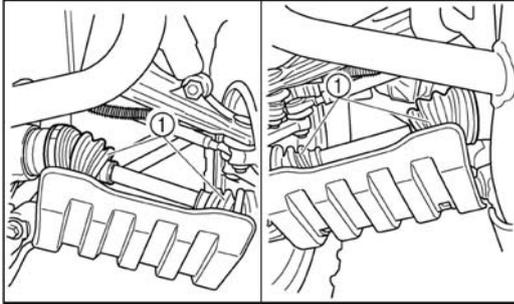
Axle boots

Check the protective boots for holes or tears. If any damage is found, have them



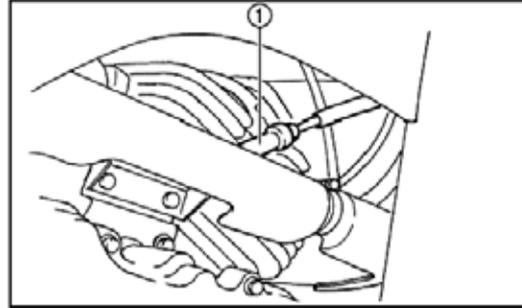
8-20 Periodic Maintenance and Adjustment

replaced by a dealer.



[1]. Axle boot (×2 each side)

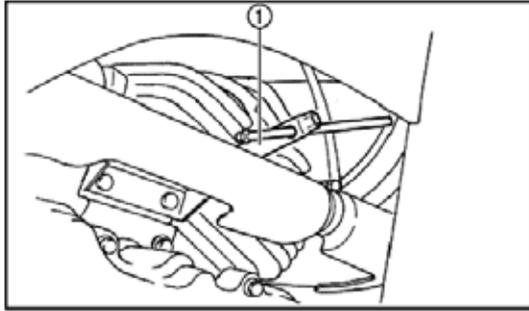
Spark plug inspection Removal



1. Spark plug cap

1. Remove the spark plug cap.
Use the spark plug wrench in the tool kit to remove the spark plug as shown.

Periodic Maintenance and Adjustment 8-21



1. Spark plug wrench

Spark plug inspection

The spark plug is an important engine component and is easy to be inspected. The condition of the spark plug can indicate the engine condition. The ideal color on the white insulator around the center electrode is a medium to light tan color for an ATV that is being ridden normally. Do not

attempt to diagnose such problems by yourself. Instead, take the ATV to a dealer. You should periodically remove and inspect the spark plugs because heat and deposits will cause the spark plug to slowly deteriorate and erode. If electrode erosion becomes excessive, or if carbon and other deposits are excessive, you should replace the spark plug with a specified plug.

Specified spark plug:
DCPR7E (NGK)

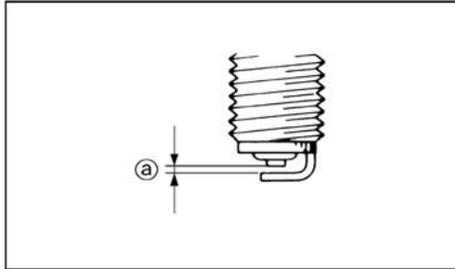
Installation

1. Measure the electrode gap with a wire thickness gauge; and if necessary, adjust the gap to specification.

Spark plug gap: 0.8-0.9 mm



8-22 Periodic Maintenance and Adjustment



a. Spark plug gap

2. Clean the gasket surface.
3. Install the spark plug and tighten it to the specified torque.

Tightening torque:
Spark plug:
17.5 Nm (1.75m·kgf, 12.93 ft·lbf)

NOTE:
If a torque wrench is not available when you are installing a spark plug, a good

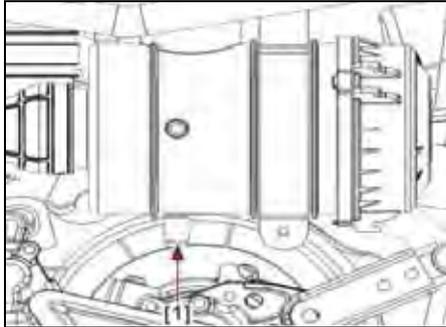
estimate of the correct torque is 1/4 to 1/2 turn past finger tight. Have the spark plug tightened to the specified torque as soon as possible.

4. Replace the spark plug cap.

Air filter element cleaning

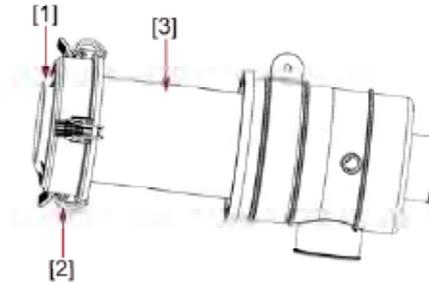
NOTE:
There is a check hose at the bottom of the air filter case. If dust or water collects in this hose, empty the hose and clean the air filter element and air filter case.





[1]. Air filter case check hose

1. Remove the cover panels on the right side of the fuel tank.
2. Remove the air filter from the ATV.
3. Loosen the fasteners. Remove the air filter case cover.



[1]. Air filter case [2]. Fasteners [3]. Air filter element

4. Remove the air filter element cover.
5. Remove the air filter element from its case.
6. Wash the air filter element gently but thoroughly in solvent.

WARNING

Never clean the filter element with gasoline, clean it with professional cleaning solvent.



8-24 Periodic Maintenance and Adjustment

7. Squeeze the excess solvent out of the air filter element and let it dry.

NOTE: _____

Do not twist the air filter element when squeezing it.

8. Inspect the air filter element and replace it if damaged.

9. Apply foam air filter oil or other high quality foam air filter oil to the air filter element.

CAUTION: _____

The air filter element should be wet but not dripping

10. Pull the air filter element over its frame.

11. Install the air filter element.

12. Install the air filter case cover and be sure to connect the hose.

13. Install the air filter to the ATV. Make sure the air filter and the hose connections are sealed.

CAUTION: _____

The air filter element should be cleaned every 20-40 hours. It should be cleaned and lubricated more often if the machine is operated in extremely dusty areas. Each time air filter element maintenance is performed, check the air inlet to the air filter case for obstructions.

Check the air filter element rubber connection to the carburetor and manifold fittings for an airtight seal. Tighten all fittings securely to avoid the possibility of unfiltered air entering the engine.



WARNING

Never operate an engine without the air filter element installed. This will allow unfiltered air to enter, causing rapid engine wear and possible engine damage. Additionally, operation without the air filter element will lower the performance of the engine and the engine may overheat.

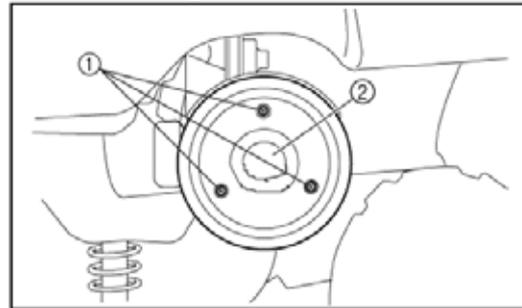
Spark arrester cleaning

Be sure the exhaust pipe and muffler have cooled down before cleaning the spark arrester.

1. Remove the bolts.
2. Remove the tailpipe and the spark arrester by pulling it out of the muffler.
3. Tap the exhaust pipe lightly, and then

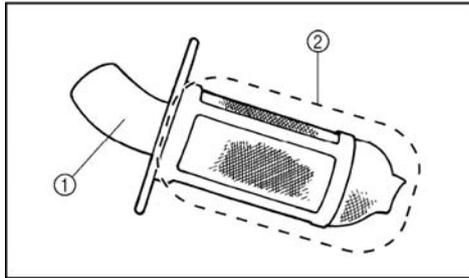
use a wire brush to remove all carbon deposits from the spark arrester portion of the exhaust pipe and inside of the exhaust pipe housing.

4. Insert the exhaust pipe into the muffler and align the bolt holes.
5. Install and tighten the bolts.



[1].Bolt (×3)

8-26 Periodic Maintenance and Adjustment



1. Exhaust pipe

2. Spark arrester

WARNING

When cleaning the spark arrester, always let the exhaust system cool down prior to touching exhaust components.

Do not start the engine when cleaning the exhaust system.

V-belt cooling duct check hose

If dust or water collects in the V-belt cooling duct check hose, remove the hose and clean it.

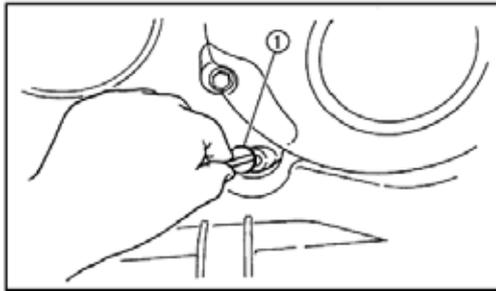
V-belt case drain plug

After riding in water deep enough, water may enter the V-belt case. Remove this plug to drain the water from the case.

NOTE:

If water drains from the V-belt case before removing the plug, have a dealer inspect the ATV as the water may affect other engine parts.





[1]. V-belt case drain plug

Valve clearance adjustment

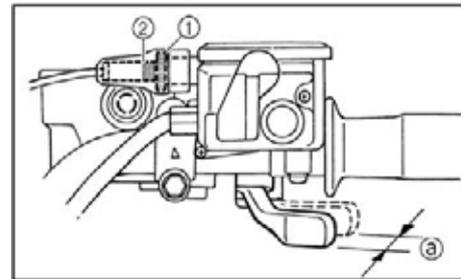
The correct valve clearance varies during operation time, resulting in improper fuel/air supply or engine noise. To avoid this, the valve clearance must be adjusted regularly. This adjustment should be left to a professional service technician.

Throttle lever adjustment

NOTE:

ADJUSTING METHOD:

1. Loosen the locknut.
2. Turn the adjusting bolt until the throttle lever free play is 3-5 mm.
3. Tighten the locknut.

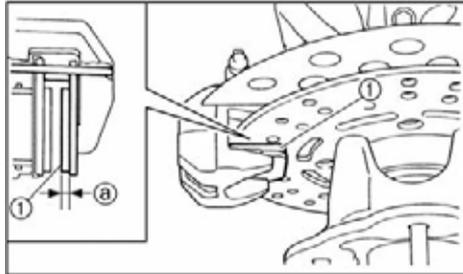


1. Locknut 2. Adjusting bolt
@. Throttle lever free play

8-28 Periodic Maintenance and Adjustment

Front/rear brake pad inspection

Check the brake pads for damage and wear. If a brake pad thickness is less than 1 mm (0.04 in), have a dealer replace the pads as a set.



1. Brake pad

a. Brake pad thickness

NOTE:

The wheels need to be removed to check the brake pads. (See pages 8-34—8-35 for removal and installation procedures.)

Brake fluid level checking

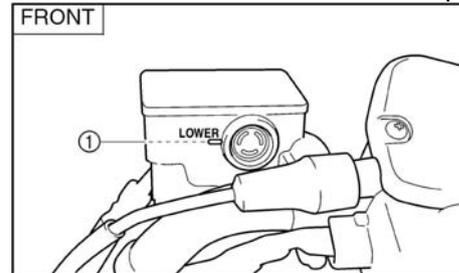
Insufficient brake fluid may allow air to enter the brake system, possibly causing the brakes to become ineffective.

Before riding, check to be sure the brake fluid is above the minimum level and replenish when necessary.

A low brake fluid level may indicate worn brake pads and/or brake system leakage.

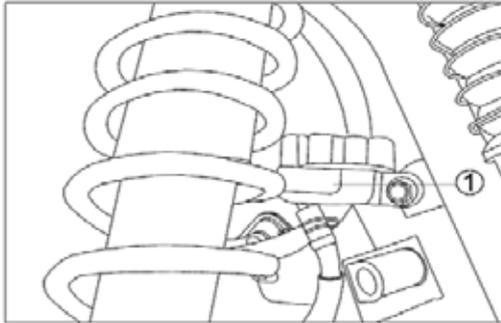
If the brake fluid level is low find the reason.

The rear brake fluid master cylinder reservoir is located near the brake pedal.



1. Minimum level mark

Periodic Maintenance and Adjustment 8-29



[1]. Minimum level mark

Observe these precautions:

1. When checking the fluid level, make sure the top of the master cylinder reservoirs are level.
2. Use only the designated quality brake fluid, otherwise the rubber seals may deteriorate, causing leaks and poor brake performance.

Recommended brake fluid: DOT 4

3. Refill with the same type of brake fluid. Mixing fluids may result in a harmful chemical reaction and lead to poor brake performance.
4. Be careful that water does not enter the master cylinder reservoirs when refilling. Water will significantly lower the boiling point of the fluid and may result in vapor lock.
5. Brake fluid may deteriorate painted surfaces or plastic parts. Always clean off spilled fluid immediately. Have a dealer check the cause if the brake fluid level goes down.

Brake fluid replacement

- Complete fluid replacement should be done only by trained service personnel.
- Have a dealer replace the following components during periodic mainten-

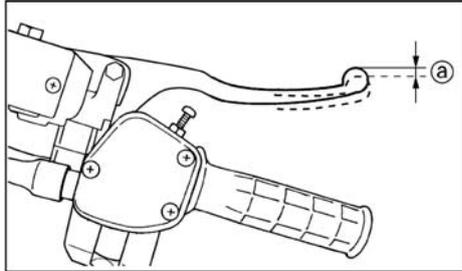


8-30 Periodic Maintenance and Adjustment

- ance or when they are damaged or leaking. Replace the oil seals every two years. Replace the brake hoses every four years.
- Change parts immediately if they are broken or leaking.

Front brake lever free play

The front brake lever should have a free play of zero mm (zero in) at the lever end. If not, have a dealer check the brake system.



Ⓐ. Front brake lever free play

WARNING

POTENTIAL HAZARD

Operating with improperly serviced or adjusted brakes.

WHAT CAN HAPPEN

You could lose brake performance, which could lead to an accident.

HOW TO AVOID THE HAZARD

After servicing:

- Make sure the brakes operate smoothly and that the free play is correct.
- Make sure the brakes do not drag.
- Make sure the brakes are not spongy. All air must be bled from the brake system.

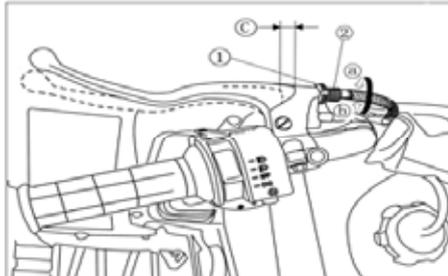
Replacement of brake components requires professional knowledge. These procedures should be performed by a dealer.

Adjusting the parking brake lever

The free play of the parking brake lever should be between 0.5-1.5mm.

- Loosen the locknut.
- Turn the adjusting bolt in direction A to increase free play, and in direction B to decrease free play.
- Tighten the locknut.

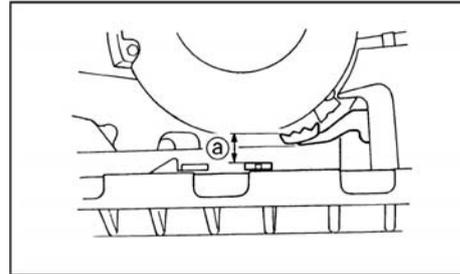
If correct free play cannot be obtained, ask a dealer to make that adjustment.



1. Locknut 2. Adjusting bolt ©.Brake lever free play

Adjusting the brake pedal

The top of the brake pedal should be positioned 95 mm above the top of the floor board. If not, ask a dealer to adjust it.



①.Distance between brake pedal and footrest

8-32 Periodic Maintenance and Adjustment

Inspection and lubricate cable

WARNING

If control cables protective cover gets damaged, corrosion may happen. It also makes the wire twisted, so the cable may not work. This may cause an accident leading to personal injury

If the cable cannot be smoothly pushed in or pulled after cleaning and lubricating, replace the cable.

RECOMMENDED: SAE10W30 ENGINE OIL

Lubricating the brake lever and brake pedal

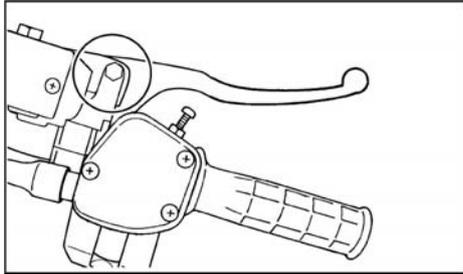
Use lithium grease to lubricate rotating parts.

CAUTION:

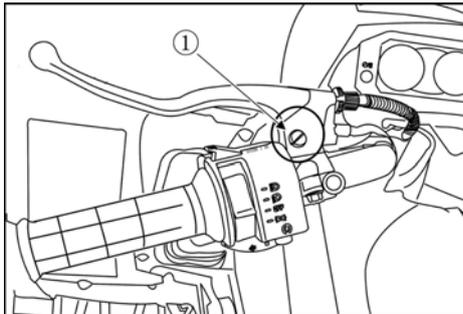
In order to get close to the rotation points of the brake pedal, the side panel should be removed

Recommended lubricant: Lithium-soap-based grease

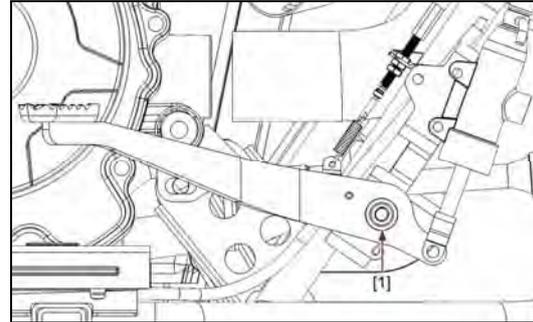




1. Rotation point



1. Rotation point

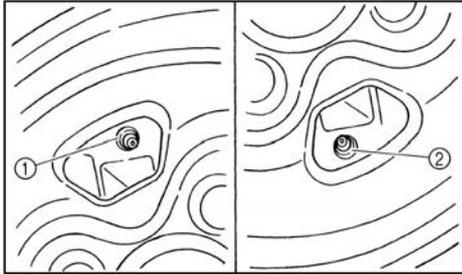


[1]. Rotating point

Rear knuckle upper and lower pivot lubrication

Lubricate the knuckle upper and lower pivots with a grease gun.

8-34 Periodic Maintenance and Adjustment

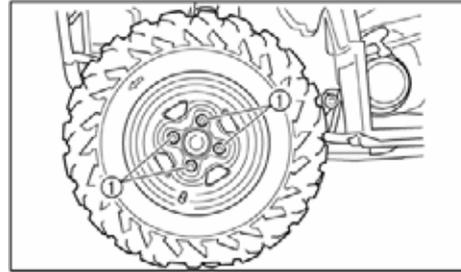


1. Upper knuckle 2. Lower knuckle

Recommended
lubricant: Lithium-soap-based grease

Wheel removal

1. Loosen the wheel nuts.
2. Elevate the ATV and place a suitable stand under the frame.
3. Remove the nuts from the wheels.
4. Remove the wheels.



1. Nut (x4)

Wheel installation

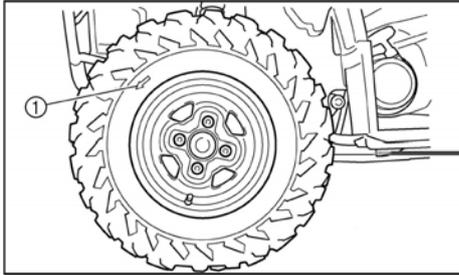
1. Install the wheel and the tapered nut.

NOTE: _____
The arrow mark on the tire must point in the direction of the wheel rotation.

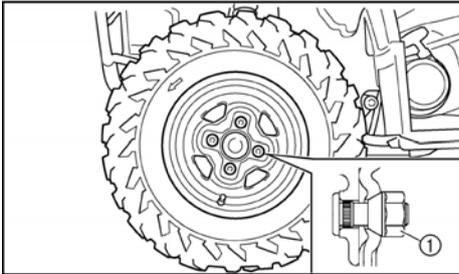
Tapered nuts are used for both the front and rear wheels. Install the nut with its tapered side towards the wheel.



Periodic Maintenance and Adjustment 8-35



1. Arrow mark



1. Tapered nut

2. Lower the ATV so that the wheels are on the ground.

3. Tighten the wheel nuts to the specified torque.

Wheel nut torque:

Front: 75 Nm (7.5m·kgf, 55.42 ft·lbf)

Rear: 75 Nm (7.5m·kgf, 55.42 ft·lbf)

Battery

This ATV is equipped with a sealed-type battery. Therefore there is no need to check the electrolyte or add distilled water to the battery. If the battery has discharged, consult a dealer.

If the battery has discharged, find the reason as soon as possible. When the voltage drops below 10.5 Volts, storing the battery may harm the battery.



8-36 Periodic Maintenance and Adjustment

CAUTION:

Do not try to open the caps on the top of the battery, as this may cause damage the battery.

Always store the battery after fully charging.

Use a specialized battery charger to charge the sealed battery.

WARNING

POTENTIAL HAZARD

Improper handling of the battery or the electrolyte

WHAT CAN HAPPEN

You may be badly hurt by the electrolyte (sulfuric acid).

The battery can produce explosive gases.

HOW TO AVOID THE HAZARD

Keep the acid far away from your skin, eyes and clothes. When you work near the

battery, wear eye protection. Keep the children far away from the battery.

EXTERNAL: Flush with water.

INTERNAL: Drink a lot of water or milk. Follow with milk of magnesia, beaten egg or vegetable oil. Get prompt medical attention.

EYES: Flush with water for 15 minutes and get prompt medical attention. Keep batteries away from sparks, flames, cigarettes or other sources of ignition. Ventilate when charging or using in a closed space.

Battery maintenance

1. When the ATV is not used for a month or longer, remove the battery and store it in a cool, dark place. Completely recharge the battery before re-installation.
2. Before re-using, the battery should be fully charged using a specialized charger.



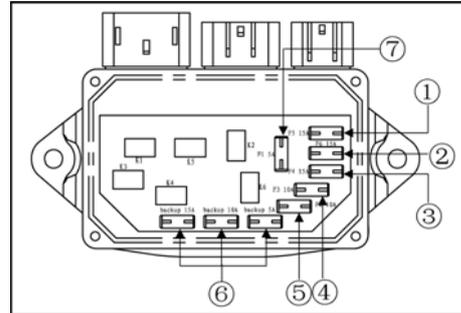
CAUTION:

A special battery charger is required for recharging a sealed-type battery.

3. Always make sure the positive and negative connections are correct when putting the battery back in the ATV.

Fuse replacement

1. The ignition fuse and the fuse box are located under the seat.
2. If a fuse is blown, turn off the ignition switch and the switch for the circuit in question. Then, install a new fuse of the specified amperage.
- Turn on the ignition switch. If the fuse immediately blows again, consult a dealer.



1. Dash board, ECU switch battery fuse
2. Headlight fuse
3. Auxiliary DC jack fuses
4. EPS, relay fuse
5. Brake, steering fuse
6. Backup fuse
7. Dash board, ECU constant power fuse

Specified fuses:	
Dash board, ECU switch battery fuse	15A
Headlight fuse	15A
Auxiliary DC jack fuse	15A
EPS, relay fuse	10A
Brake, steering fuse	10A
Backup fuse	(5A, 10A, 15A)
Dash board, ECU constant power fuse	5A



8-38 Periodic Maintenance and Adjustment

WARNING

Using a wrong fuse will damage the electrical system, possibly causing a fire.

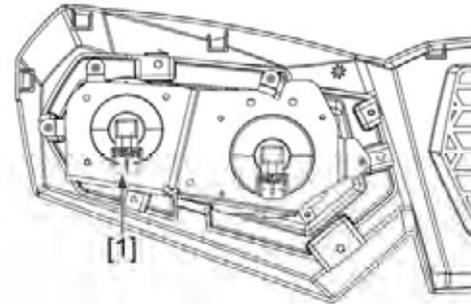
NOTE:

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

Replacing a headlight bulb

If a headlight bulb burns out, replace it as follows.

1. Taking off the plug, then the bulb will be removed



[1]. Plug

2. Remove the defective bulb by pulling it out.

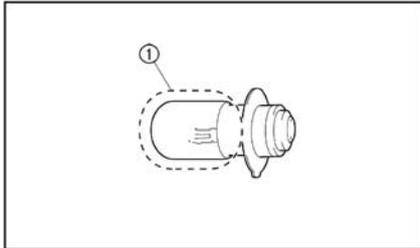
WARNING

Before touching or removing a bulb, allow enough time for it to cool.

3. Insert a new headlight bulb into the bulb holder by pushing it in.

CAUTION:

Do not touch the glass part of the headlight bulb to keep it free from oil, otherwise reduce the transparency of the glass; the luminosity of the bulb and the bulb life will be adversely affected. Thoroughly clean off any dirt and fingerprints on the headlight bulb using a cloth moistened with alcohol or thinner.

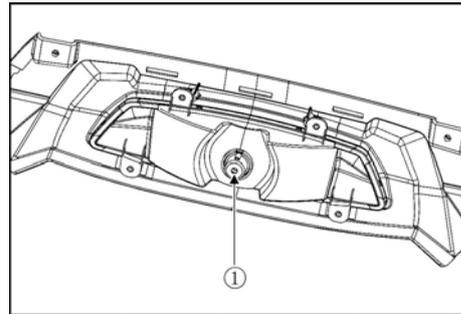


1. Do not touch the glass part of the bulb.

6. Install the bulb holder by pushing it in and turning it clockwise.

7. Install the bulb holder cover and the cover at the rear of the headlight.

Replacing a taillight



1. Tail/brake light bulb holder

1. Remove the burned out bulb from the bulb holder by pushing it inward and turning it counterclockwise.

8-40 Periodic Maintenance and Adjustment

2. Install a new bulb in the bulb holder by pushing it inward and turning it clockwise.
3. Install the bulb holder (together with the bulb).

ATV common fault inspection and solution charts

This section provides inspection and solution charts for common faults for the 400ATV-8, it will help you maintain the ATV more efficiently for safe use.

Some ATV maintenance requires special techniques. If you encounter a problem which you cannot solve, please contact a dealer.



WARNING

POTENTIAL HAZARD:

Checking the fuel system while smoking or near an open flame.

WHAT CAN HAPPEN:

Fuel can ignite or explode, causing severe injury or property damage.

HOW TO AVOID THE HAZARD:

Do not smoke when checking the fuel system. Make sure there are no open flames or sparks in the area, including pilot lights from water heaters or furnaces.



8-42 Periodic Maintenance and Adjustment

Sheet 1: Inspection and solution table for common faults

S/N	Problems	Solutions
1	Panel damaged during off-road driving	1. Check if the frame and support brackets are deformed or broken. Repair and touch-up paint as necessary
		2. Replace any damaged body panels.
		3. Re-paste on stickers and install the warning placards with rivets.
2	The skid plate is damaged by an object	1. Check if the reducer box or differential in the front and rear bridge to see if it is broken or leaking oil.
		2. Check to see if the bottom of the engine housing is broken or leaking oil.
		3. Replace with a new skid plate as necessary



Periodic Maintenance and Adjustment 8-43

Sheet 2: Inspection methods / solutions for common faults in the Brake system.

S/N	Problems	Solutions
1	Brake system seizing	1. Check if the parking brake lever returns to the normal position.
		2. Check if the brake discs on the front or rear wheels are deformed.
		3. Check the brake calipers on the front and rear wheels. See if the hydraulic cylinder is blocked, or the brake caliper parts are deformed.
2	Brake performance degradation	1. Check if the brake disc wear limit has been exceeded.
		2. Check whether the rotors or the disc brake pads have worn beyond limits or gotten contaminated by oil or other material which could reduce the brake performance.
		3. Check if any brake lines are leaking.
		4. Check if any push rods to the master cylinder are deformed.
		5. Check if the oil lines have any air and if they do, use special brake bleeding tools to remove the air.
		6. Check to see if there is sufficient oil in the front and rear brake reservoirs and the oil is at least to the minimum level line..
3	When driving, front or rear brakes make sound or brake discs or rotors turn red because of heat	1. Check if the brake discs are deformed.
		2. Check if the hydraulic cylinder on the brake calipers is blocked, or the brake caliper are deformed.



8-44 Periodic Maintenance and Adjustment

S/N	Problems	Solutions
4	Pulling during high-speed braking	<ol style="list-style-type: none"><li data-bbox="628 294 1380 350">1. Check to see if there is any brake component wear beyond limits or different wear between the left and right side.<li data-bbox="628 350 1380 434">2. Check if the brake force for the front brake has been reduced allowing the rear wheels to lock before the front wheels during braking.<li data-bbox="628 434 1380 496">3. Check if there is a difference in the spring force on the shock absorbers between the left and right side suspension<li data-bbox="628 496 1380 560">4. Check to see if the rubber spring ring which connects the chassis and the swing arm is damaged.



Periodic Maintenance and Adjustment 8-45

Sheet 3: Inspection methods / solutions for common faults in the Electrical system.

S/N	Problems	Solutions
1	Lights not working	1. Check to be sure the light switch is working.
		2. Check to see if the wires are damaged.
		3. Check to see if the lights are damaged or blown out.
2	Will not engage in 4WD	1. "2WD/4WD" Check and be sure the control switch 2WD/4WD on the display panel is working properly.
		2. Check if electromagnet inside the front axle gearbox is damaged.
		3. Check to see if the wires are damaged.
3	Rear axle gearbox is inoperative	1. Check and be sure the control switch for 2WD/4WD on on the display panel is working properly.
		2. Check if electromagnet inside the rear axle gearbox is damaged.
		3. Check to see if the wires are damaged.
4	Display is abnormal on the display panel	1. Check to see if the sensor is damaged.
		2. Check to be sure the display panel is NOT damaged.
		3. Check to see if the surface of the speed sensor is coated with oxidation.
5	Shutdown switch does not turn off the engine.	1. Check to see if the shutdown switch has a problem.
		2. Check to see if the wires are damaged
		3. Check to see if the ECU or the EFI systems are damaged.



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Sheet 4: Inspection methods / solutions for common faults in the operational systems.

S/N	Problems	Solutions
1	Steering wheel gap is too large	1. Check to see if the nuts on the steering column, steering knuckles and steering stem are damaged or loose. Tighten if necessary.
		2. Check and be sure the steering column is NOT damaged.
		3. Check to see if the gear clearance on the steering is too large.
		4. Check to see if the bearing in the steering knuckle is damaged
2	Front wheels shake when driving.	1. Check to see if the main ball stud is damaged.
		2. Check and be sure the fastening nuts on the front wheels and the front wheel axles are loose or damaged.
		3. Check to see if the internal splines on the front wheel hub, or the outer splines of the front wheel axle are worn, abraded or damaged.
		4. Check to be sure the rubber spring ring which connects the front suspension and chassis is NOT damaged.
3	Rear wheels shake when driving	1. Check to see if the bearing in the rear axle bearing seat is damaged.
		2. Check to see if the moving bearing which connects the rear axle bearing seat and swing arm is worn, abraded or loose.
		3. Check to see if the retainer nut on the rear axles and/or rear wheels are loose or damaged.
		4. Check if the internal splines of rear wheel hub or the outer splines of the rear axle are worn, loose or abraded.
		5. Check if the rubber spring ring which connects the rear suspension and chassis is damaged.



Periodic Maintenance and Adjustment 8-47

S/N	Problems	Solutions
4	Wheels bounce when moving	<ol style="list-style-type: none"> 1. Check to see if the wheel rim is deformed. 2. Check to see if the front or the rear axle is bent. 3. Check to see if the tire is deformed or damaged.
5	Shock absorber has become soft and uncomfortable during operation	<ol style="list-style-type: none"> 1. Check and be sure the ATV is NOT overloaded. 2. Check to see if the springs on the shock absorber have deformed or become weak over time. 3. Check and be sure the damping force is present during compression and extension of shock absorber.
6	Abnormal sounds from front/rear axle during operation.	<ol style="list-style-type: none"> 1. Check to see if the splines on the front or rear transmission shaft are damaged. 2. Check to see if the splines on either end of the left or right axle shafts on the front or rear bridge are damaged. 3. Check to be sure the gear inside the front and rear reduction gearbox or differential does NOT have excessive wear. 4. Check to see if the boot on the constant velocity joint for the left or the right axle shafts are damaged.



8-48 Periodic Maintenance and Adjustment

Sheet 5: Inspection methods / solutions for common problems with the engine.

S/N	Problems	Solutions
1	Engine idle cannot be adjusted using a computer	1. Check to be sure the throttle cable is NOT seized.
		2. Check to see if the ECU is damaged.
2	Unstable of engine idle speed.	1. Check to see if the battery voltage is lower than the specified value.
		2. Check to see if the output voltage of the rectifier when the engine is idling is lower than the specified value.
		3. Check to determine if the EFI has any problems.
2	Engine power reduction	1. Check and see if a cylinder is not working.
		2. Check to be sure that an injector is NOT blocked.
		3. Check and clean the air filter element.
		4. Check to see if the muffler is blocked and clean the spark arrestor.
3	Engine backfires	1. Check to see if there are any air leaks in the air filter or air inlet pipe.
		2. Check to see if the connection between the exhaust pipe and engine or the exhaust pipe and muffler has an air leak.
		3. Check to be certain the grade of the gasoline is NOT too low.
4	Engine is hard to start at lower temperatures.	1. Check to see if the voltage of the battery has gotten lower because of the lower temperature.
		2. If the temperature is below 0° F, move the ATV to a warmer place. After it warms up it should start.



Periodic Maintenance and Adjustment 8-49

S/N	Problems	Solutions
5	Coolant overheats or boils	<ol style="list-style-type: none"> 1. Check to see if the cooling fins on the water cooler are blocked. 2. Check to see if the temperature sensor on the water cooler is damaged and if the cooling fan is operating properly. 3. Check and be sure that the added antifreeze is the type specified in this user's manual. 4. Check to see if there is any air in the water cooling system.
6	Engine does not start	<ol style="list-style-type: none"> 1. Check to see if the battery charge is sufficient to make the starter motor crank. 2. Check to see if the starter motor is damaged. 3. Check to be sure the EFI system works properly. 4. Check and be sure the ignition circuit is working properly. 5. Check to see if the spark plug has a carbon deposit or the spark plug element is burned. 6. Check to see if the ignition signal to the magneto is working normally. 7. Check and be sure the air filter is NOT blocked. 8. Check to see if the oil circuit is no blocked and operating smoothly. 9. Check to see if the exhaust system is blocked. 10. Check to see if the oil pump and the EFI system is working.



9-1 Cleaning and Storage

Cleaning

Keep clean of the ATV not only make it appear beautiful but also keep its efficient function and extend the service life of components on the vehicle.

Before cleaning ATV:

- Block the end of exhaust pipe to avoid the water in. Plastic bag and strong rubber tape are available.

- Make sure the spark plug and oil tank cover have been installed correctly.

Clean the oil stain away, If it is too much on the engine body.

Clean away dust and oil stain with soft water pipe.

CAUTION:

High pressure of water will make the vehicle hydrops, and will make the function of the brake system, seal parts of transmission and electrical parts deteriorated.

With warm Neutral detergent water to clean the surface when most of the dust is washed away. An old toothbrush or small round brush which used to clean the glass bottle could be used to clean the place which could not catch easily.

Wash with clear water right away, and then wipe dry with soft leather, clean towel and absorbent cloth.

With leather cleaner to clean the seat cushion, keep it is soft and smooth.



With buffing wax on the surface of chrome-plate. but buffing wax will damage the surface of plastic.

When finished, start engine, make it is in an idle state in a few minutes at the same time.

WARNING

Moisture brake will reduce the function of brake, and increase the possibility of accident.

So testing the function of the brake after cleaning. Run the brake under the lower speed many times in order to wipe dry the friction plate.

Storage

Always take preventive actions to avoid its function turns bad when you want to storage your ATV (60 days or more longer).Store your ATV following the procedures outlined below after cleaning:

Keep the oil tank and oil pipe is clean and without any oil.

Knock down the spark plug, pull the oil SAE 10W30 or 20W40 into the spark plug hole, and re-install the spark plug, and then roll the engine in order to distribute the oil on the cylinder wall.

Lubricate all the control cables.

Elevate the frame so that all the wheels off the ground.



9-3 Cleaning and Storage

Put a plastic bag on the exhaust pipe of muffler to prevent the moisture in.

If stored in a humid or salt air, the exposed metal surface needs to be coated with a thin layer of oil. Oil use is strictly prohibited on any rubber parts or the seat skin.

Remove the battery and fully charged. The battery is stored in a dry place, charge one time per month.

It is strictly prohibited to storage the battery in too warm or cold place.

CAUTION: _____

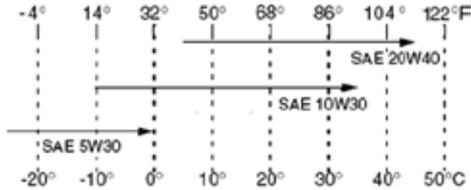
Checking and repairing ATV before storage.



Model	HS400ATV-8
Dimensions: Overall length Overall width Overall height Seat height Wheelbase Ground clearance Minimum turning radius	2100mm (82.7 in) 1060mm (41.7 in) 1170mm (46.1 in) 940mm (37in) 1310mm (51.6 in) 200mm (7.87 in) 3500mm (137.8in)
Basic weight: With oil and full fuel tank	310kg (683 lb)
Engine: Engine type Cylinder arrangement Displacement Bore × stroke Compression ratio Starting system Lubrication system	4-stroke, Water cooled V type twin cylinder 393cm ³ 84.7×70mm 9.3±0.1:1 Electric starter Wet sump



10-2 Specifications

Model	HS400ATV-8
<p>Engine oil: Type</p> <p>Recommended engine oil classification</p> <p>Quantity: Without oil filter cartridge replacement With oil filter cartridge replacement</p>	 <p>API Service SE, SF, SG type or higher</p> <p>CAUTION: _____ In order to prevent clutch slippage (since the engine oil also lubricates the clutch), do not mix any chemical additives. Do not use oils with a diesel specification of “CD” or oils of a higher quality than specified. In addition, do not use oils labeled “ENERGY CONSERVING II” or higher.</p> <p>_____</p> <p>1.9 L (1.67 Imp qt, 2.01 US qt) 2.0 L (1.76 Imp qt, 2.11 US qt)</p>



Model	HS400ATV-8
Final gear case oil: Type Quantity	SAE80 API GL-4 Hypoid gear oil 0.23 L (0.2 Imp qt, 0.24 US qt)
Differential gear case oil: Type Quantity	SAE80 API GL-4 Hypoid gear oil 0.35 L (0.31 Imp qt, 0.37 US qt)
Radiator capacity (including all routes):	1.80 L (1.58 Imp qt, 1.90 US qt)
Air filter:	Wet type element
Fuel: Type Fuel tank capacity	UNLEADED GASOLINE ONLY 10 L (4.4 Imp gal, 2.6 US gal)
Throttle valve: Type / quantity	D42
Spark plug: Type/manufacturer Spark plug gap	DR8EA 0.6–0.7 mm (0.023–0.027 in)
Clutch type:	Wet, centrifugal automatic



10-4 Specifications

Model	HS400ATV-8								
Transmission: Primary reduction system Secondary reduction system CVT reduction ratio Transmission type Operation Reverse gear Sub transmission ratio	CVT-belt Shaft drive 2.714~0.625 CVT-belt automatic Right hand operation 4.49 4.54								
Tire: Type Size <table style="margin-left: 200px; border: none;"> <tr> <td style="padding-right: 10px;">front</td> <td></td> </tr> <tr> <td>rear</td> <td></td> </tr> </table>	front		rear		Tubeless 25×8-12 25×10-12				
front									
rear									
Brake: <table style="margin-left: 20px; border: none;"> <tr> <td style="padding-right: 20px;">Front brake</td> <td>type</td> </tr> <tr> <td></td> <td>operation</td> </tr> <tr> <td style="padding-right: 20px;">Rear brake</td> <td>type</td> </tr> <tr> <td></td> <td>operation</td> </tr> </table>	Front brake	type		operation	Rear brake	type		operation	Dual disc brake right hand operation Single disc brake right foot operation
Front brake	type								
	operation								
Rear brake	type								
	operation								
Suspension:									



Model	HS400ATV-8
Front suspension Rear suspension	Double wishbone Swing arm (mono cross)
Shock absorber: Front shock absorber Rear shock absorber	Coil spring / oil damper Coil spring / oil damper
Wheel travel: Front wheel travel Rear wheel travel	160 mm (6.30 in) 180 mm (7.09 in)
Electrical: Ignition system Generator system Battery type Battery capacity	ECU A.C. magneto YTX20L-BS 12 V, 18 Ah
Headlight type: Bulb voltage, wattage × quantity: Head light Tail/brake light Front/Rear turning lights Indicator light: Neutral indicator light	Krypton bulb 12 V, 35 W / 35 W × 2 12 V, 5 W / 21 W × 1 12V, 0.7W/ 0.8W X 2 LED Liquid crystal display



10-6 Specifications

Model	HS400ATV-8
Reverse indicator light Coolant temperature warning light Park indicator light Forward-range indicator light	Liquid crystal display LED Liquid crystal display Liquid crystal display
Fuses: Dash board、ECU switch battery fuse Headlight fuse Auxiliary DC jack fuse Brake、steering fuse Backup fuse Dash board、ECU constant power fuse	15A 15A 15A 10A (5A、10A、15A) 5A



Fault Code of Electronic Injection System 11-1

Fault Code of Electronic Injection System

DTC Number	DTC Description	Related Calibration	HEX	DEC
P0107	MAP Circuit Low Voltage or Open	KsDGDM_MAP_ShortLow	107	263
P0108	MAP Circuit High Voltage	KsDGDM_MAP_ShortHigh	108	264
P0112	IAT Circuit Low Voltage	KsDGDM_IAT_ShortLow	112	274
P0113	IAT Circuit High Voltage or Open	KsDGDM_IAT_ShortHigh	113	275
P0117	Coolant/Oil Temperature Sensor Circuit Low Voltage	KsDGDM_CoolantShortLow	117	279
P0118	Coolant/Oil Temperature Sensor Circuit High Voltage or Open	KsDGDM_CoolantShortHigh	118	280
P0122	TPS Circuit Low Voltage or Open	KsDGDM_TPS_ShortLow	122	290
P0123	TPS Circuit High Voltage	KsDGDM_TPS_ShortHigh	123	291
P0131	O2S 1 Circuit Low Voltage	KsDGDM_O2_1_ShortLow	131	305



11-2 Fault Code of Electronic Injection System

P0132	O2S 1 Circuit High Voltage	KsDGDM_O2_1_ShortHigh	132	306
P0031	O2S Heater Circuit High Voltage	KsDGDM_O2_HeaterShortHigh	31	49
P0032	O2S Heater Circuit Low Voltage	KsDGDM_O2_HeaterShortLow	32	50
P0201	Injector 1 Circuit Malfunction	KsDGDM_INJ_CYL_A_Fault	201	513
P0202	Injector 2 Circuit Malfunction	KsDGDM_INJ_CYL_B_Fault	202	514
P0230	FPR Coil Circuit Low Voltage or Open	KsDGDM_FPP_CircuitShortLow	230	560
P0232	FPR Coil Circuit High Voltage	KsDGDM_FPP_CircuitShortHigh	232	562
P0336	CKP Sensor Noisy Signal	KsDGDM_CrankNoisySignal	336	822
P0337	CKP Sensor No Signal	KsDGDM_CrankNoSignal	337	823
P0351	Cylinder 1 Ignition Coil Malfunction	KsDGDM_EST_A_Fault	351	849
P0352	Cylinder 2 Ignition Coil Malfunction	KsDGDM_EST_B_Fault	352	850
P0505	Idle Speed Control Error	KsDGDM_IdleControl	505	1285
P0562	System Voltage Low	KsDGDM_SysVoltLow	562	1378



Fault Code of Electronic Injection System 11-3

P0563	System Voltage High	KsDGDM_SysVoltHigh	563	1379
P0650	MIL Circuit Malfunction	KsDGDM_MIL_Circuit	650	1616
P1693	Tachometer Circuit Low Voltage	KsDGDM_TAC_Circuit_Low	1693	5779
P1694	Tachometer Circuit High Voltage	KsDGDM_TAC_Circuit_High	1694	5780
P0137	O2S 2 Circuit Low Voltage	KsDGDM_O2_2_ShortLow	137	311
P0138	O2S 2 Circuit High Voltage	KsDGDM_O2_2_ShortHigh	138	312
P0038	O2S Heater 2 Circuit High Voltage	KsDGDM_O2_HeaterShortHigh	38	56
P0037	O2S Heater 2 Circuit Low Voltage	KsDGDM_O2_HeaterShortLow	37	55
P0500	VSS No Signal	KsDGDM_VSS_NoSignal	500	1280
P0850	Park Neutral Switch Error	KsDGDM_ParkNeutralSwitch	850	2128
P0445	CCP short to high	KsDGDM_CCP_CircuitShortHigh	445	1093
P0444	CCP short to low/open	KsDGDM_CCP_CircuitShortLow	444	1092
P0171	BLM Max Adapt(Kohler Special)	KsFDIAG_BLM_MaxAdapt	171	369
P0172	BLM Min Adapt(Kohler Special)	KsFDIAG_BLM_MinAdapt	172	370
P0174	PE System Lean(Kohler Special)	KsFDIAG_PESystLean	174	372



Hisun Motors Corp., U.S.A. Emission Control System Warranty Statement

YOUR WARRANTY RIGHTS AND OBLIGATIONS

The U.S. Environmental Protection Agency and **Hisun Motors Corp., U.S.A.** (hereinafter “**HISUN**”) are pleased to explain the emission control system warranty on your Off-Road vehicle. New off-road motor vehicles must be designed, built and equipped to meet U.S. EPA Federal and California anti-smog standards. HISUN must warrant the emission control system on your vehicle for 5,000 km, or at least 30 months, whichever comes first, provided that there has been no abuse, neglect or improper maintenance of your vehicle. This off-road vehicle was designed to meet the emission standards for 10,000 km, or five years, whichever comes first.

Your emission control system warranty covers components whose failure would increase an engine’s emissions of any regulated pollutant

Where a warrantable condition exists, HISUN will repair your vehicle at no cost to you, including diagnosis, parts and labor.

If an emission-related part on your vehicle is defective, the part will be repaired or



Hisun Motors Corp., U.S.A. Emission Control System Warranty Statement

replaced by HISUN. This is your EMISSION CONTROL SYSTEM WARRANTY.

NOTICE! Use of this vehicle in any type of competitive event completely and absolutely voids this and all other warranties offered by HISUN.

OWNER'S WARRANTY RESPONSIBILITIES

As the vehicle owner, you are responsible for the performance of the required maintenance listed in your owner's manual. HISUN recommends that you retain all receipts covering maintenance on your vehicle, but HISUN cannot deny warranty solely for the lack of receipts or for your failure to ensure the performance of all scheduled maintenance.

You are responsible for presenting your vehicle to the HISUN dealer as soon as a problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days.

As the vehicle owner, you should be aware that HISUN may deny your warranty



Hisun Motors Corp., U.S.A. Emission Control System Warranty Statement

coverage if your vehicle or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications.

If you use your vehicle in any type of competitive event, this warranty is immediately and completely void.

If you have any questions regarding your warranty rights and responsibilities, you should contact Hisun Motors Corp., U.S.A., 310 E, University Drive, McKinney, TX 75069 (Phone: 972-446-0760 or Toll Free: 877-838-6188), or the U.S. Environmental Protection Agency at 2000 Traverwood Drive, Ann Arbor, MI 48105.





Hisun Motors Corp., U.S.A. Limited Warranty on Emission Control System

YOUR WARRANTY RIGHTS AND OBLIGATIONS

Hisun Motors Corp., U.S.A. warrants that each new off-road vehicle:

A. is designed, built and equipped so as to conform at the time of initial retail purchase with all applicable regulations of the United States Environmental Protection Agency, and

B. is free from defects in material and workmanship which cause such vehicle to fail to conform to applicable regulations of the United States Environmental Protection Agency for the periods specified above.

I. Coverage. Warranty defects shall be remedied during customary business hours at any authorized HISUN dealer located within the United States of America in compliance with the Clean Air Act and applicable regulations of the United States Environmental Protection Agency. Any part or parts replaced under this warranty shall become the property of HISUN.





Hisun Motors Corp., U.S.A. Limited Warranty on Emission Control System

II. Limitations This Emission Control System Warranty shall not cover any of the following:

- A.** Repair or replacement as a result of
 - (1) accident,
 - (2) misuse,
 - (3) repairs improperly performed or replacements improperly installed, unless performed by a HISUN authorized dealer,
 - (4) use of improper replacement parts or accessories not conforming to specifications set forth by HISUN, which adversely affect performance and/or
 - (5) Use in competitive racing or related events.

- B.** Inspections, replacement of parts and other services and adjustments required for required maintenance.





Hisun Motors Corp., U.S.A. Limited Warranty on Emission Control System

C. Any vehicle equipped with an odometer or hour meter on which the odometer mileage or hour meter reading has been changed so that actual mileage cannot be readily determined.

III. Limited Liability

A. The liability of HISUN under this Emission Control System Warranty is limited solely to the remedying of defects in material or workmanship by an authorized HISUN dealer at its place of business during customary business hours. This warranty does not cover inconvenience or loss of use of the vehicle or transportation of the vehicle to or from the HISUN dealer. HISUN shall not be liable for any other expenses, loss or damage, whether direct, incidental, consequential or exemplary arising in connection with the sale or use of or inability to use the vehicle for any purpose. Some states do not allow the exclusion or limitation of any incidental or consequential damages, so the above limitations may not apply to you.





Hisun Motors Corp., U.S.A. Limited Warranty on Emission Control System

B. No express emission control system warranty is given by HISUN except as specifically set forth herein. Any emission control system warranty implied by law, including any warranty of merchantability or fitness for a particular purpose, is limited to the express emission control system warranty terms stated in this warranty. The foregoing statements of warranty are exclusive and in lieu of all other remedies. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

C. No dealer is authorized to modify this Limited Emission Control System Warranty issued by HISUN.

IV. LEGAL RIGHTS. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

V. This warranty is in addition to the limited vehicle warranty.

VI. ADDITIONAL INFORMATION. Any replacement part that is equivalent in





Hisun Motors Corp., U.S.A. Limited Warranty on Emission Control System

performance and durability may be used in the performance of any maintenance or repairs by the owner. However, HISUN is not liable for these parts. The owner is responsible for the performance of all required maintenance. Such maintenance may be performed at a service establishment or by any individual. The warranty period begins when the vehicle is placed into service.

If you have any questions regarding your warranty rights and responsibilities, you should contact Hisun Motors Corp., U.S.A., or the U.S. Environmental Protection Agency at 2000 Traverwood Drive, Ann Arbor, MI 48105.

Hisun Motors Corp., U.S.A.

310 E. University Drive

McKinney, TX 75069

Phone: 972-446-0760

Fax: 972-446-0765

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