

# BMS COLT 700 LSX 2S/4S

## OWNER'S MANUAL



 **WARNING**

**The engine exhaust from this product contains chemicals can cause cancer, birth defects or other reproductive harm.**

**Read this manual carefully before operating this vehicle. This manual should stay with this vehicle if it is sold.**

# INTRODUCTION

Congratulations on your purchase of the BMS Ranch pony. It represents the result of many years of BMS experience. With the purchase of this vehicle, you can now appreciate the high degree of craftsmanship and reliability. This manual will provide you with a good basic understanding of the features and operation of this vehicle. It also includes basic maintenance and inspection procedures. If you have any questions regarding the operation or maintenance of your vehicle, please consult a BMS dealer.



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**Please read this manual carefully before operating this vehicle. Do not attempt to operate this vehicle until you have attained adequate knowledge of this controls and operating features. Regular inspections and careful maintenance along with good operating techniques will help ensure that you safely enjoy the capabilities and reliability of this vehicle.**

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# IMPORTANT MANUAL INFORMATION

FAILURE TO FOLLOW THE WARNING CONTAINED IN THIS MANUAL CAN RESULT IN SERIOUS INJURY OR DEATH.

Particularly important information is distinguished in this manual by the following notations:



**This is the safety alert symbol. It used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.**



**A WARNING indicates a hazardous situation which, if not avoided could result in death or serious injury.**

***NOTICE***

**A NOTICE indicates special precautions that must be taken to avoid damage to the vehicle or other property.**

**TIP**

**A TIP provides key information to make procedures easier or clearer**

\*product and specifications are subject to change without notice.

## IMPORTANT NOTE ABOUT USE

- **This vehicle is designed and manufactured for off-road use only. Use on public streets, roads or highways is not only illegal in most areas, it also increases the risk of an accident involving other vehicles. This vehicle does not meet federal vehicle safety standards for on-road use.**
- **Check the laws and regulations in force before choosing where to operate this vehicle. It is illegal to operate this vehicle on public lands where vehicles its size are prohibited.**
- **This vehicle complies with almost all state off-highway noisy level and spark ar-rester laws and regulations.**

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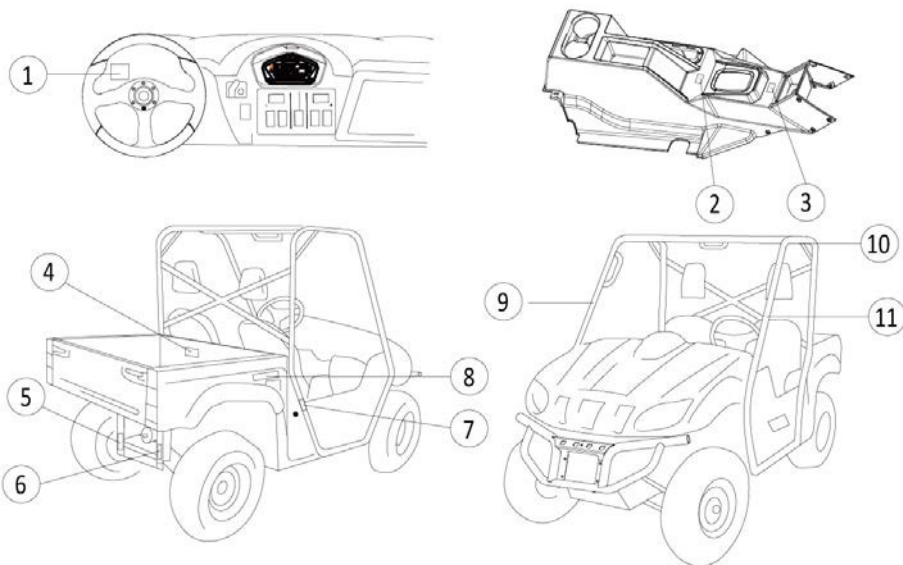
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# LOCATION OF THE WARNING AND SPECIFICATION LABELS

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

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



## A. WARNING

Improper use of Off-Highway Vehicles Can Cause Severe Injury or Death

### Be Prepared

- Fasten Mal belts
- Wear an approved helmet and protective gear.
- Each rider must be able to sit with back against seat feet flat on floor and hands on steering wheel or handhold. Stay completely inside the vehicle.

### Drive Responsibly

- Avoid loss of control and rollovers;
- Avoid abrupt maneuvers, sideways sliding & kidding or tailgating and never do donuts.
  - Slow down before entering a turn.
  - Avoid hard acceleration when turning, especially from a stop.
  - Plan for hills, tight turns, and other conditions that affect traction and control on paved surfaces.
  - Avoid sidehilling (riding across slopes).



### Require Proper Use of Your Vehicle

Do your part to prevent injuries:

- Do not allow careless or reckless driving.
- Make sure operators are 16 or older with a valid driver's license.
- Do not let people use or ride after using alcohol or drugs.
- Do not allow operation on public roads (unless clearly stated for off-highway vehicle use). Collisions with cars and trucks can occur.
- Do not exceed seat capacity: 2 passengers.



### Be Sure Riders Pay Attention and Plan Ahead

- When you think or feel the vehicle may tip or roll, reduce your risk of injury:
- Keep a firm grip on the steering wheel or handholds and brace yourself.
  - Do not place any part of your body outside of the vehicle for any reason.

Read the owner's manual

Follow All Instructions and Warnings

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Roll-Over Protection System (ROPS) is not available in all areas.

**!**

• Sk>p""  
using the Shift Lever and the 2'N0/4WD  
/4WD-LOCK SWitch .

- Select gear "L" on rough terrain and sloped terrain.
- Must use Low Gear if total payload is greater than 226 kg (500lbs)

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**AWARNING**



IN ORDER TO AVOID BODILY INJURY, PLEASE AVOID HAVING FOOD OR DRINKS IN THIS VEHICLE. THANKYOU!

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**⚠ WARNING**


Overloading can cause loss of control. Loss of control can result in severe injury or death

When loaded with cargo:

- Reduce speed and allow more room to stop.
- Turn gradually and go slowly.
- Avoid hills and rough terrain.
- Loads should be centered and carried as low as possible in box. Overloading or carrying tall, off-center, or unsecured loads will increase your risk of losing control.
- Be careful if load extends over the side of the box.

• Improper tire pressure or overloading can cause loss of control.  
• Loss of control can result in severe injury or death.  
• Cold tire pressure (recommended):  
Front: 62 kpa 12 psi  
Rear: 124 kpa 18 psi  
• Maximum weight capacity:375 kg(826 lbs)

**Never carry passengers in cargo bed.**



- Maximum load in cargo bed:170 kg(375 lbs)
- Refer to instructions in the Owner's Manual.

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**AWARNING**

When pulling a trailer:

- Set the shift lever to low gear range(L)
- Reduce your speed and turn gradually.
- Avoid hills and rough terrain.
- Allow more distance to stop.

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**A WARNING**

Improperly loading a trailer may cause loss of control. Evenly balance the load.

- MaxmJll towing weight 1500 lbs (680 ).
- MaxmJll tongue weighl150 lbs(68kg)

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**⚠ WARNING**



Keep hands, body, and other people away from pinch points when lowering bed. Do not hold the cage/frame while closing bed.


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**A WARNING**



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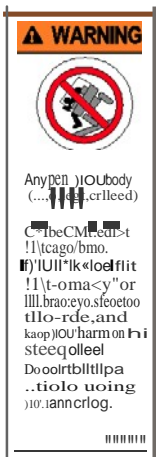
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## SAFETY INFORMATION

### **Be a responsible owner**

As the vehicle's owner, you are responsible for the safe and proper operation of your Ranch pony. While understanding all parts of this manual are important for vehicle ownership, be sure to read this chapter and the instructions in Chapter 7 before operating the Ranch pony. Also use these two chapters and the labels on the vehicle to instruct new operators and passengers. Do not allow anyone else to operate your vehicle or ride as a passenger if you are unsure that he/she is willing and able to follow these instructions.

### **Get to know your vehicle**

This off-road vehicle will handle and maneuver differently from cars, ATVs, go-cars and golf-cars. Follow these instructions to reduce your risk of an accident and to reduce the risk of serious injury or death in the event of an accident.



## Before you operate the vehicle

- Prepare yourself and your passenger:
  - This vehicle is intended for use only by an operator 16 or older with a valid motor vehicle license.



- This vehicle is designed to carry the driver and one passenger. Never carry passengers in the cargo bed.
- Both driver and passenger should wear seat belts properly.
- Both driver and passenger must be able to put both feet on the floorboard while seated upright with their back against the back-rests. Passenger must be able to reach and hold the handholds within the cage/frame.
- Both driver and passenger should wear an approved motorcycle helmet that fits properly. Both driver and passenger should also wear eye protection (goggles or face shield), gloves, over-the-ankle boots, long-sleeved shirt or jacket and long pants.
- Do not drive or ride as passenger after using drugs or alcohols.

## **Prepare your vehicle**

Perform the pro-operation checks each time you use the vehicle to make sure it is in safe operating condition. Failure to inspect or maintain the vehicle properly increases the possibility of an accident or equipment damage. See Chapter 5 for a list of pre-operation checks.

## **Prepare your load or trailer**

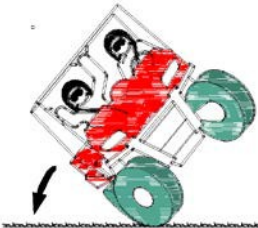
Carrying loads, towing a trailer or pulling objects can affect handling stability and cause the risk of overturns or other accidents.

- Read Chapter 6 before loading, towing or pulling objects.
- Do not overload the vehicle or trailer. Refer to label in cargo bed for cargo bed limit. Refer to label next to hitch for tongue weight and trailer load limits.
- Keep weight in the cargo bed centered side to side, and as low and as far forward as possible.
- Secure cargo so that it will not shift – a loose load could change handling unexpectedly or be thrown forward and strike occupants.

## **While using the Ranch pony**

- Keep your body completely inside the vehicle at all times. Keep both hands on the steering wheel. Be sure the passenger is seated, belted, and holding onto the handholds. Close doors before driving. Any part of your body (arms, legs and head) outside the vehicle can be struck by objects your vehicle is passing or crushed by the vehicle cage/frame in a rollover accident.
- Watch for branches, brush, or other hazards that could enter the vehicle.
- Abrupt maneuvers or aggressive driving, even on flat, open areas, can cause loss of control, including rollovers. The vehicle has higher ground clearance and other features to handle rugged terrain, and, as a result, can overturn in situations where some other vehicles may not.

- Avoid rollovers:
  - Use carefully when turning:
    - Turning the steering wheel too far or too fast can result in a rollover.
    - Avoid sideways sliding, skidding, or fishtailing, and never do donuts.
    - Slow down before entering a turn and avoid hard braking in a turn.
    - When making tight turns from a stop or at slow speeds, avoid sudden or hard acceleration.



- Drive straight up and down inclines, not across them. If crossing a hill is unavoidable, drive slowly and turn downhill immediately if you feel the vehicle may tip.
- Avoid paved surfaces. Turn gradually and go slowly if you must drive on pavement. This vehicle is designed for off-road use only.
- If you think or feel that the vehicle may tip or roll, keep your body completely inside the protective structure of the vehicle:

- Brace yourself by pressing your feet firmly on the floorboards and keep a firm grip on the steering wheel or handholds.
- Do not put your hands or feet outside of the vehicle for any reason. Your arm or leg could be crushed.
- Do not try to stop a vehicle tip over using your arm or leg.
- Do not operate this vehicle on any public street, road, or highway, even if dirt or gravel.
- Do not operate the vehicle in fast-flowing water or water deeper than 33 cm (13 in). If you must cross shallow, slow-moving water, choose your path carefully to avoid sharp drop-offs, large rocks, or slippery surfaces. Operating this vehicle through deep or fast-flowing water can lead to loss of control or overturn. To reduce your risk of drowning or other injuries, use carefully when crossing through water.
- When loaded with cargo or towing a trailer:
  - Reduce speed, operate in low gear only, and allow more room to stop.
  - Avoid hills and rough terrain. Use extreme caution when towing or carrying a load on inclines.
  - Load trailer properly and use extra care when towing or pulling.
- Do not tow or pull objects from any part of the vehicle other than the trailer hitch bracket or winch (if installed).

## **Avoid carbon monoxide poisoning**

All engine exhaust contains carbon monoxide, a deadly gas. Breathing carbon monoxide can cause headaches, dizziness, drowsiness, nausea, confusion, and eventually death.

Carbon monoxide is a colorless, odorless, tasteless gas which may be present even if you do not see or smell any engine exhaust. Deadly levels of carbon monoxide can collect rapidly and you can quickly be overcome and unable to save yourself. Also, deadly levels of carbon monoxide can linger for hours or days in enclosed or poorly-ventilated areas. If you experience any symptoms of carbon monoxide poisoning, leave the area immediately, get fresh air, and **SEEK MEDICAL TREATMENT**.

- Do not run engine indoors. Even if you try to ventilate engine exhaust with fans or open windows and doors, carbon monoxide can rapidly reach dangerous levels.
- Do not run engine in poorly ventilated or partially enclosed areas such as barns, garages, or carports.
- Do not run engine outdoors where engine exhaust can be drawn into a building through openings such as windows and doors.

## **Genuine BMS Accessories**

Choosing accessories for your vehicle is an important decision. Genuine BMS accessories, which are available only from a BMS dealer, have been designed, tested, and approved by BMS for use on your Ranch pony.

Many companies with no connection to BMS manufacture parts and accessories or offer other modifications for BMS vehicles. BMS is not in a position to test the products that these aftermarket companies produce. Therefore, BMS can neither endorse nor recommend the use of accessories not sold by BMS or modifications not specifically recommended by BMS, even if sold and installed by a BMS dealer.

## **Aftermarket parts, accessories, and modifications**

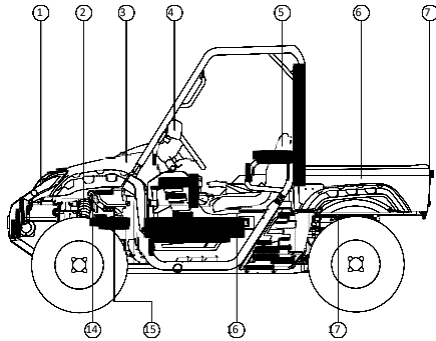
While you may find aftermarket products similar in design and quality to genuine BMS Accessories, recognize that some aftermarket accessories or modifications are not suitable because of potential safety hazards to you or others. Installing aftermarket products or having other modifications performed to your vehicle that change any of the vehicle's design or operation characteristics can put you and others at greater risk of serious injury or death. You are responsible for injuries related to changes in the vehicle.

### **Aftermarket tires and rims**

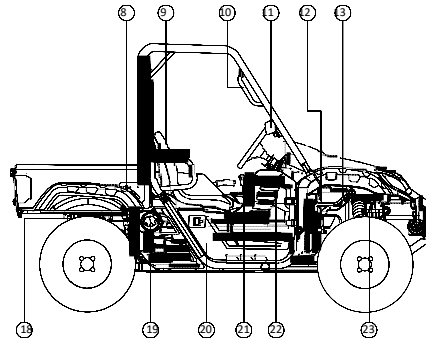
The tires and rims that came with your Vehicle were designed to match the performance capabilities and to provide the best combination of handling, braking, and comfort. Other tires, rims, sizes and combinations may not be appropriate. Refer to Chapter 8 for tire specifications and more information on replacing your tires.



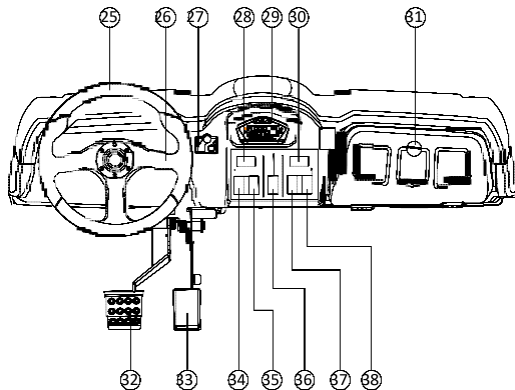
# DESCRIPTION



1. Headlights
2. Front Shock Absorber Assembly
3. Front Panel
4. Left Rear View Mirror
5. Driver Seat
6. Cargo Bed
7. Tail/Brake Lights



14. Spark Arrester
15. Brake Fluid Reservoir
16. CVT Case
17. Rear Shock Absorber Assembly
18. Fuel Tank Cap
19. Engine Oil Dipstick
20. Drive Select Lever
21. Parking Brake Lever
22. Coolant Reservoir
23. Coolant

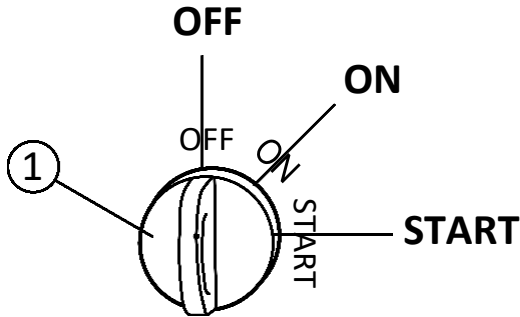


The vehicle you have purchased may differ slightly from those shown in the figures of this manual.

- 25. Steering Wheel
- 26. Main Switch
- 27. On-Command Four-Drive and Differential Gear Lock Switches
- 28. Turn Signal Switch
- 29. Multi-Function Instrument
- 30. Plug cover
- 31. Glove Compartment Lock
- 32. Brake Pedal
- 33. Accelerator Pedal
- 34. Master switch
- 35. Headlight
- 36. Horn switch
- 37. Hazard Switch
- 38. Winch control

# INSTRUMENT AND CONTROL FUNCTIONS

## Main switch



1、 Main switch

Functions of the respective switch positions are as follows:

ON:

All electrical circuits are supplied with power.

TIP

The helmet/seat belt indicator light comes on and stays on while the key is turned to "ON".

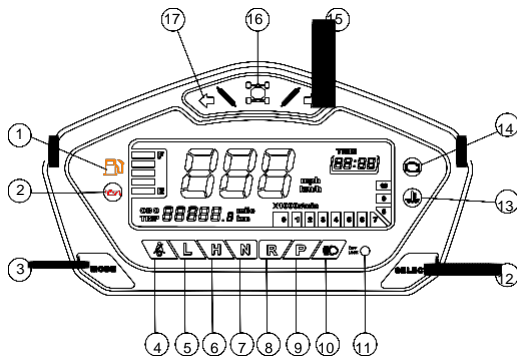
OFF:



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

START:

The electric starter is engaged by turning and holding the key in this position. Release the key when the engine starts.


## Indicator lights and warning lights



1. Fuel Indicator
2. Engine Oil Indicator 
3. "MODE" Button
4. Seat Belt
5. Low-Range Indicator Light "L"
6. High-Range Indicator Light "H"
7. Neutral Indicator Light "N"
8. Reverse Indicator Light "R"
9. Parking Brake Indicator Light "P"
10. The High Beam Light
11. Differential Gear Lock Indicator
12. "SELECT" Button
13. Coolant Temperature Warning Light 

14. Engine Trouble Warning Light 

15. Right turning Signal indicator

16. On-Command Four-Wheel-Drive/Differential Gear Lock Indicator 

17. Left turning Signal indicator

### Low-range indicator light "L"

This indicator light comes on when the drive select lever is in the "L" position.

### High-range indicator light "H"

This indicator light comes on when the drive select lever is in the "H" position.

### Neutral indicator light "N"

This indicator light comes on when the drive select lever is in the "N" position.


### Reverse indicator light "R"


This indicator light comes on when the drive select lever is in the "R" position.

### **Parking brake indicator light “P”**

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

### **On-Command four-wheel-drive indicator “”, On-Command differential gear lock indicator “” and indicator light “DIFF.LOCK”.**

The On-Command four-wheel-drive indicator “” comes on when the On-Command four-wheel-drive switch is set to the “4WD” position


The On-Command differential gear lock indicator “” and the On-Command differential gear lock indicator light “DIFF. LOCK” comes on when the On-Command differential gear lock switch is set to the “LOCK” position.

#### **TIP**

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- Due to the synchronizing mechanism in the differential gear case, the four-wheel-drive indicator may not come on until the

vehicle starts moving.

- When the On-Command differential gear lock switch is set to “LOCK” or “4WD”, the indicator “” and the indicator light “DIFF. LOCK” will flash until the differential gear is completely locked or unlocked. If the indicator and the indicator light continue to flash, the differential is not completely locked or unlocked. In this case, start moving to allow time for the differential to lock or unlock
-

## Coolant temperature warning light “”

If the coolant temperature reaches a specific level, this light comes on to warn that 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 10 minutes. (See Chapter 8.)

The electrical circuit of the warning light can be checked by turning the key to “ON”. If the warning light does not come on initially when the key is turned to “ON”, or if the warning light remains on, have a BMS dealer check the electrical circuit.

## NOTICE

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- **The engine may overheat if the vehicle is overloaded. If this happens, reduce the load to specification.**
  - **After restarting, make sure that the warning light is out. Continuous use while this warning light is on may cause damage to the engine.**
-

### **Engine trouble warning light:**

This warning light comes on or flashes if a problem is detected in the electrical circuit monitoring the engine. When this occurs, have a BMS dealer check the self-diagnosis system. (See Chapter 4 for an explanation of the self-diagnosis device.)

The electrical circuit of the warning light can be checked by turning the key to “ON”. If the warning light does not come on initially when the key is turned to “ON”, or if the warning light remains on, have a BMS dealer check the electrical circuit.

### **Self-diagnosis device**

This model is equipped with a self-diagnosis device for various electrical circuits.

If a problem is detected in any of those circuits, the engine trouble warning light comes on or flashes, and the multi-function display indicates an error code.

If the multi-function display indicates an error code, note the code number, and then have a BMS dealer check the vehicle.

### **NOTICE**

**If the multi-function display indicates an error code, the vehicle should be checked as soon as possible in order to avoid engine damage.**

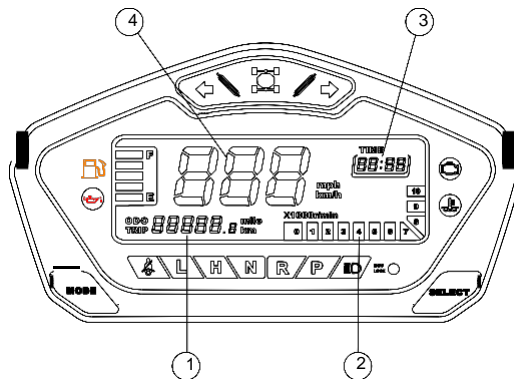
## Fuel meter



The fuel meter indicates the amount of fuel in the fuel tank. The display segments of the fuel meter disappear from “F” (full) towards “E” (empty) as the fuel level decreases. When the “E” segment disappears and the fuel level warning indicator flashes, refuel as soon as possible.

### TIP

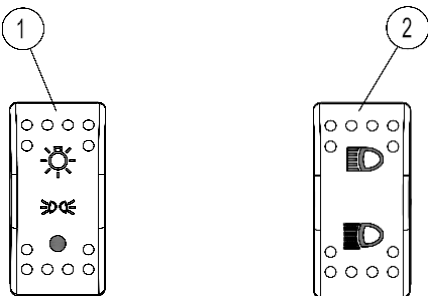
This fuel meter is equipped with a self-diagnosis system. If a problem is detected in an electrical circuit, all the display segments and fuel level warning indicator start flashing. If this occurs, have a BMS dealer check the electrical circuit.



1. TRIP/ODO display: press "SELECT" key transformation;
2. Engine Tachometer, Each representative 1000r/min;
3. Clock;
4. Speed Meter, can be converted to the metric and inch.



## Light switch



- 1.Head light switch
- 2.High/low beam switch

- Turning the head light switch to the “☀” position causes the following lamps to light simultaneously.
  1. Taillights
  2. Lamp built in the whole switch
  3. Lamp built in the instrument
  4. Lamp built in the bumper
  5. Front left and right position lights
- The high/low beam switch is only operative when the head light is in the “☀” posi-

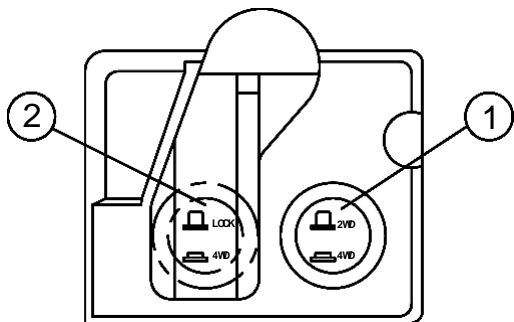
tion.

1. Set the witch to “☀” to open the dipped headlight and taillight
  2. Set the witch to “☀” to open the high beam headlight and taillight
- Set the head light witch to “●” to turn off all the lights

### NOTICE

**Do not use the headlights with the engine turned off for an extended period of time. The battery may discharge to the point that the starter motor will not operate properly. If this should happen, remove the battery and recharge it.**

## On-Command four-wheel-drive and differential gear lock switches



1. On-Command four-wheel-drive switch "2WD"/"4WD"
2. On-Command differential gear lock switch "4WD"/"LOCK"

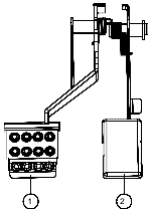
This vehicle is equipped with an On-Command four-wheel-drive switch "2WD"/"4WD" and a differential gear lock switch "4WD"/"LOCK". Select the appropriate drive according to terrain and conditions.

- "2WD" (two-wheel drive): Power is supplied to the rear wheels only.

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

## Accelerator pedal and Brake pedal

Press the accelerator pedal down to increase engine speed. Spring tension returns the pedal to the rest position when released. Always check that the accelerator pedal returns normally before starting the engine. Press the brake pedal to slow or stop the vehicle., while the brake lights



1. Brake pedal
2. Accelerator pedal

## Parking brake lever

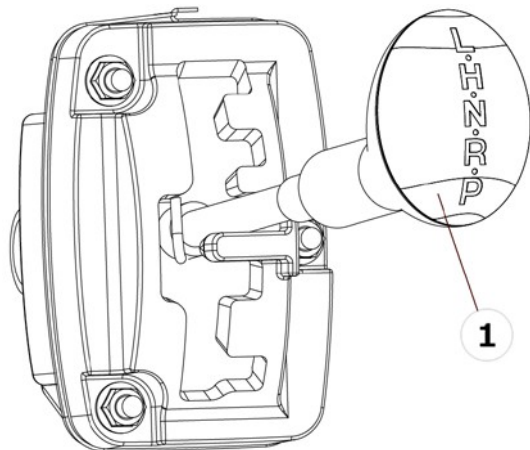
The parking brake lever is located at the right side of the driver's seat. Setting the parking brake lever will help keep the vehicle from moving while parked.

To set the parking brake, pull the lever up completely.

To release the parking brake, pull up on the lever, press the release button, and then push the lever all the way down. Spring tension helps return the lever to the released position.

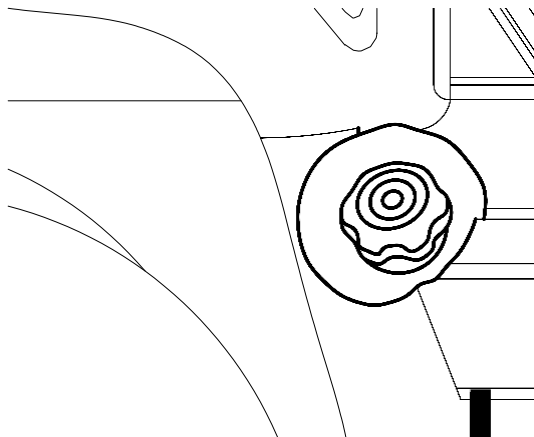
## Drive select lever

The drive select lever is used to shift the vehicle into the low, high, neutral, and reverse positions. (Refer to Chapter 6-for the drive select lever operation.)



1. Drive select lever

## Fuel tank cap

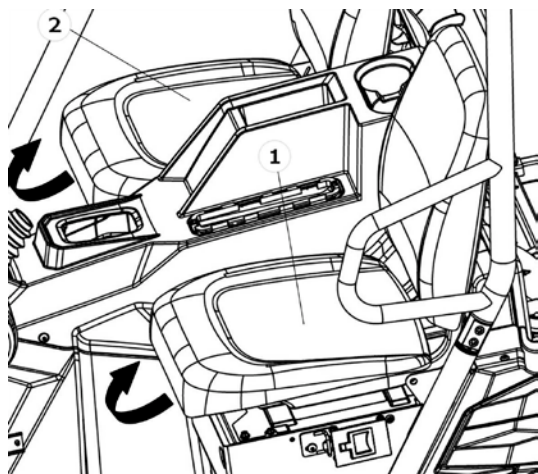


### To open

Remove the fuel tank cap by turning it counter-clockwise.

### To close

Install the fuel tank cap by turning it clockwise.



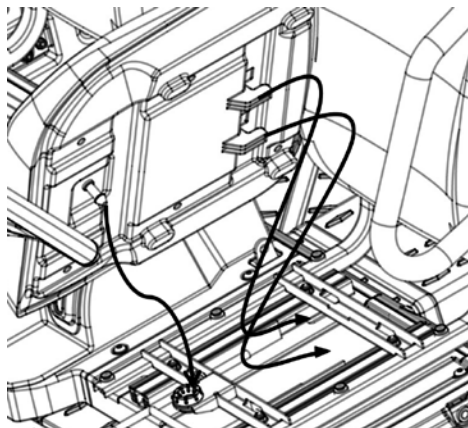
## Seats

To remove a seat cushion, lift the front of the cushion, and then pull the cushion off.

1. Driver seat cushion
2. Passenger seat cushion

To install a seat cushion, insert the projections on the rear of the seat cushion under the seat frame, and then insert the projection on the front of the cushion downward. Make sure the seats are properly secured before riding.

**WARNING! A loose seat could cause the operator to lose control, or cause the operator or passenger to fall.**



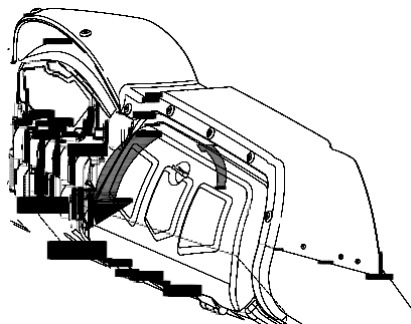
## Seat belts

This vehicle is equipped with three-point seat belts for both the operator and the passenger. Always wear the seat belts properly while riding in the vehicle. See Chapter 7 for more information.

## Glove compartment

### NOTICE

**To protect from damage, do not put metal items, like tools, or sharply edged items, directly in the glove compartment. If they must be stored, wrap them in appropriate cushioning material.**



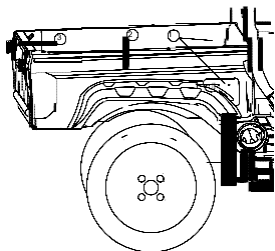
a. Unlock

b. Open

## Cargo bed



Do not exceed the specified maximum load limits. Heavier cargo could cause loss of control because of improper weight balance.



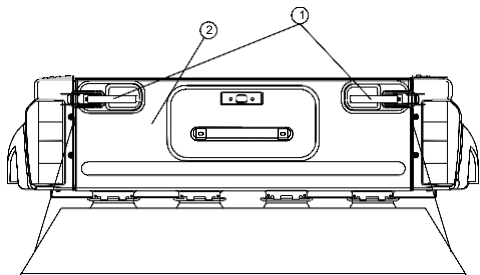
1. Cargo hook 2. Cargo bed 3. Tailgate

Maximum load limit: 170 kg (375lbs)

For additional loading information, see Chapter

6

## Opening and closing the tailgate



1. Latch (x2)    2. Tailgate

### To open

Unhook the latches, and then lower the tailgate.

### To close

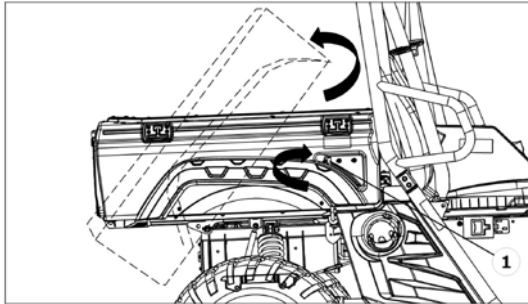
Lift the tailgate to the original position, and then hook the latches.

## NOTICE

The tailgate is not designed to hold heavy loads when open. The tailgate could collapse if you put heavy cargo or sit on it.



## Lifting and lowering the cargo bed



1. Cargo bed release lever

### To lift

Push down the cargo bed release lever on the left or right side of the vehicle, and then slowly lift up the cargo bed until it stops.

### To lower

With hands and fingers clear of pinch points, lower the cargo bed slowly to its original position and be sure it is locked into place.



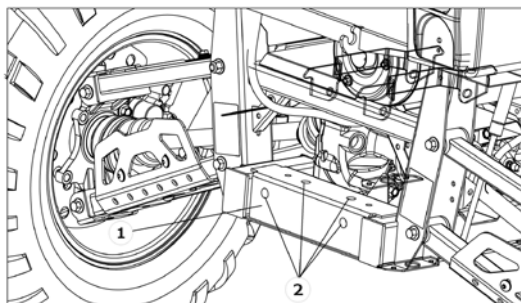
**Keep hands, body, and other people away**

from pinch points when lowering bed. Do not hold onto the cage/frame while closing the bed.

---

## Trailer hitch bracket and receiver

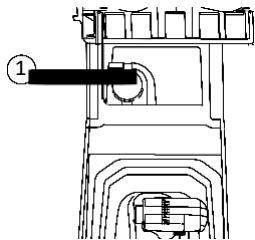
This vehicle is equipped with a trailer hitch bracket and a 5 cm (2 in) receiver for a standard trailer hitch. Trailer towing equipment can be obtained at a BMS dealer. (See Chapter 6 for precaution information.)



1. Trailer hitch bracket 2. Receiver

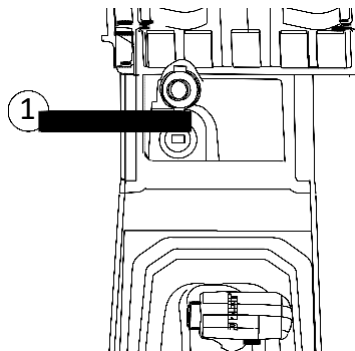
## Auxiliary DC jack

The auxiliary DC jack is located at the right side of the front panel. The auxiliary DC jack can be used for suitable work lights, radios, etc. The auxiliary DC jack should only be used when the engine is running and the headlights are turned off.



1. Auxiliary DC jack cap

1. Set the light switch to "OFF".
2. Turn the accessory off.
3. Start the engine. (See Chapter 6.)
4. Open the auxiliary DC jack cap and then insert the accessory power plug into the jack.



1. Auxiliary DC jack

Maximum rated capacity for the auxiliary DC jack:  
DC 12V,10A(120W)

5. Turn the accessory on.
6. When the auxiliary DC jack is not being used, cover it with the cap.

## NOTICE

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- Do not use accessories requiring more than the maximum capacity stated above. This may overload the circuit and cause the fuse to blow.
  - If accessories are used without the engine running, the battery may discharge.
  - Do not use an automotive cigarette lighter or other accessories with a plug that gets hot, because the jack can be damaged.
-

## FOR YOUR SAFETY - PRE-OPERATION CHECKS

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



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**Failure to inspect or maintain the vehicle properly increases the possibility of an accident or equipment damage. Do not operate the vehicle if you find any problem. If a problem cannot be corrected by the procedures provided in this manual, have the vehicle inspected by a BMS dealer.**

---

Before using this vehicle, check the following points:

ITEM	ROUTINE	CHAPTER
Brakes	<ul style="list-style-type: none"> <li>• Check operation, free play, fluid level, and fluid leakage.</li> <li>• Fill with DOT 4 brake fluid if necessary.</li> </ul>	Chapter 5, 8
Parking brake	<ul style="list-style-type: none"> <li>• Check for proper operation, condition, and free play.</li> </ul>	Chapter 8
Fuel	<ul style="list-style-type: none"> <li>• Check fuel level.</li> <li>• Fill with fuel if necessary.</li> </ul>	Chapter 5
Engine oil	<ul style="list-style-type: none"> <li>• Check oil level.</li> <li>• Fill with oil to proper level if necessary.</li> </ul>	Chapter 5, 8
Coolant	<ul style="list-style-type: none"> <li>• Check coolant level.</li> <li>• Fill with coolant if necessary.</li> </ul>	Chapter 5, 8
Final gear oil/Differential gear oil	<ul style="list-style-type: none"> <li>• Check for leakage.</li> </ul>	Chapter 5, 8
Accelerator pedal	<ul style="list-style-type: none"> <li>• Check for proper accelerator pedal operation.</li> </ul>	Chapter 5
Seat belts	<ul style="list-style-type: none"> <li>• Check for proper operation and belt wear.</li> </ul>	Chapter 5
Steering	<ul style="list-style-type: none"> <li>• Check for proper operation.</li> </ul>	Chapter 5
Fittings and fasteners	<ul style="list-style-type: none"> <li>• Check all fittings and fasteners.</li> </ul>	Chapter 5
Instruments, lights and switches	<ul style="list-style-type: none"> <li>• Check operation, and correct if necessary.</li> </ul>	Chapter 5, 8
Wheels and tires	<ul style="list-style-type: none"> <li>• Check tire pressure and for wear and damage.</li> </ul>	Chapter 5, 8
Axle boots	<ul style="list-style-type: none"> <li>• Check for damage.</li> </ul>	Chapter 8

## Front and rear brakes

### Brake pedal

Check that there is no free play in the brake pedal. If there is free play, have a BMS dealer check the brake system. (See Chapter 8)

Check the operation of the brake pedal. It should move smoothly and there should be a firm feeling when the brakes are applied. If not, have the vehicle inspected by a BMS dealer.

### Brake fluid level

Check the brake fluid level. Add fluid if necessary. (See Chapter 8.)

Specified brake fluid: DOT 4
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### Brake fluid leakage

Check to see if any brake fluid is leaking out of the pipe joints or the brake fluid reservoir. Apply the brakes firmly for one minute. If there is any leakage, have the vehicle inspected by a BMS dealer.

### Brake operation

Check the operation of the brakes at the start of every ride. Test the brakes at slow speed after starting out to make sure they are working properly. If the brakes do not provide proper braking performance, inspect the brake system. (See Chapter 8.)

## Fuel

Make sure there is sufficient gasoline in the tank.



**Gasoline and gasoline vapors are extremely flammable. To avoid fires and explosions and to reduce the risk of injury when refueling, follow these instructions.**

1. Before refueling, turn off the engine and be sure that no one is sitting in the vehicle.
2. Never refuel while smoking, or while in the vicinity of sparks, open flames, or other sources of ignition such as the pilot lights of water heaters and clothes dryers.
3. Do not overfill the fuel tank. Because fuel expands when it heats up, heat from the engine or the sun can cause fuel to spill out of the fuel tank.
4. Wipe up any spilled fuel immediately.

5. Be sure the fuel tank cap is closed securely.



**Gasoline is poisonous and can cause injury or death. Handle gasoline with care. Never siphon gasoline by mouth. If you should swallow some gasoline or inhale a lot of gasoline vapor, or get some 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.**



Your BMS 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 you longer spark plug life and reduced maintenance cost.

### **Gasohol**

Please use 87<sup>#</sup> or 93<sup>#</sup> gasoline (US) . Gasohol containing methanol is not recommended by BMS because it may cause fuel system damage or vehicle performance problems.

Recommended fuel:

Unleaded gasoline only

Fuel tank capacity:

28 L (7.40 US gal, 6.16 Imp. gal)

## Engine oil

Make sure the engine oil is at the specified level.  
Add oil as necessary. (See Chapter 8)

### NOTICE

- **In order to prevent clutch slippage (since the engine oil also lubricates the clutch), do not mix any chemical additives with oil. 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.**

Recommended engine oil type and quantity:  
See Chapter 10

## 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 satisfactory 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 additional coolant to bring the level up to maximum level mark. If coolant is not available, add distilled water. Change the coolant every two years. (See Chapter 8 for details.)

### NOTICE

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

Coolant reservoir capacity(up to the maximum level mark): 0.25L

### **Final gear oil**

Make sure the final gear oil is at the specified level. Add oil as necessary. (See Chapter 8 for details.)

Recommended oil:

SAE 80 API GL-4 Hypoid gear oil

If desired, a SAE 80W-90 hypoid gear oil may be used for all conditions.

TIP

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GL-4 is a quality and additive rating; GL-5 or GL-6 rated hypoid gear oils may also be used.

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### **Differential gear oil**

Make sure the differential gear oil is at the specified level. Add oil as necessary. (See Chapter 8 for details.)

Recommended oil:

SAE 80 API GL-4 Hypoid gear oil

### **Accelerator pedal**

Check to see that the accelerator pedal operates correctly. It must operate smoothly and spring back to the idle position fully when released. Have a BMS dealer repair as necessary for proper operation.

### **Seat belts**

Make sure that the seat belts are not frayed, torn, stretched, or damaged. The seat belts must move smoothly when pulled out and retract on its own when released. The seat belts must also lock up when quickly pulled out. The latch plate should click securely into the buckle and release when the release button is pushed firmly. Wash off any dirt or mud that could affect operation. Have a BMS dealer repair as necessary for proper operation.

A crash can damage the restraint systems in your vehicle. A damaged restraint system may not properly protect the person using it, resulting in serious injury or death in a crash. To help make sure your restraint systems are working properly after a crash, have them inspected and any necessary replacements made as soon as possible.

### **Steering**

Park on level ground. Turn the steering wheel right and left. Check for excessive free play, abnormal noises, or a rough feeling. Have a BMS dealer repair as necessary for proper operation.

### **Fittings and fasteners**

Always check the tightness of chassis fittings and fasteners before a ride. Take the vehicle to a BMS dealer or refer to the Service Manual for correct tightening torque.

### **Instruments, lights and switches**

Check that all instruments, lights and switches are working properly. Correct if necessary.

### **Control cables**

When riding in cold weather, always make sure all control cables work smoothly before you begin riding. **WARNING! Control cables can freeze in cold weather and you could be unable to control the vehicle.**

## Tires

Check tire pressure regularly to make sure it is at the recommended specifications. Also check for wear and damage.

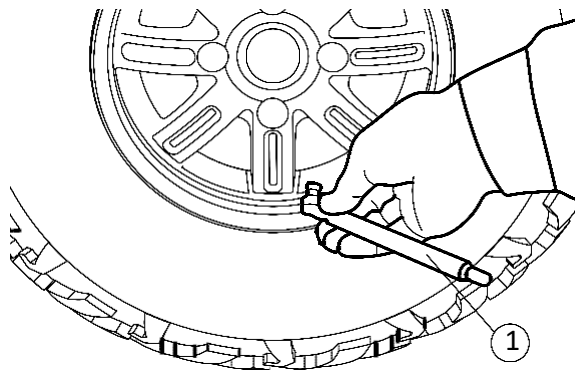
### Tire pressure

Use the tire pressure gauge to check and adjust tire pressures when the tires are cold. Tire pressures must be equal on both sides. **WARNING! Operation of this vehicle with improper tire pressure may cause severe injury or death from loss of control or roll-over. Tire pressure below the minimum specified could also cause the tire to dislodge from the rim under severe riding conditions.**

Set tire pressures to the following specifications:

	Recommended pressure
Front	82.0kPa (12psi)
Rear	124.0kPa (18psi)

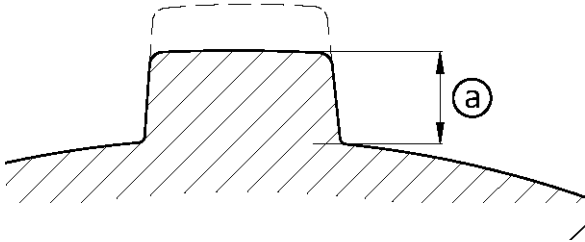
The tire pressure gauge is included as standard equipment. Make two measurements of the tire pressure and use the second reading. Dust or dirt in the gauge could cause the first reading to be incorrect.



1. Tire pressure gauge

## Tire wear limit

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



a. Tire wear limit

# OPERATION

Read the Owner's Manual carefully to become familiar with all controls. If there is a control or function you do not understand, ask your BMS dealer.



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**Failure to familiarize yourself with the controls can lead to loss of control, which could cause an accident or injury.**

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## **Engine break-in**

There is never a more important period in the life of your vehicle than the period between 0 and 20 hours.

For this reason, we ask that you read the following material carefully. Because the engine is brand new, you must not put an excessive load on it for the first several hours of operation. During the first 20 hours, the various parts in the engine wear and polish themselves to achieve the correct operating clearances.

During this period, prolonged full-throttle operation or any condition that might result in excessive engine heating must be avoided. However, momentary (2–3 seconds maximum) full-throttle operation under load does not harm the engine.

Each full-throttle acceleration sequence should be followed with a substantial rest period for the engine, by cruising at lower r/min so the engine can rid itself of the temporary build-up of heat. If any abnormality is noticed during this period, consult a BMS dealer.

### **0–10 hours:**

Avoid continuous operation above half-throttle. Allow a cooling-off period of 5 to 10 minutes after every hour of operation. Vary speed of the vehicle from time to time. Do not operate it at one set throttle position.

### **10–20 hours:**

Avoid prolonged operation above three-quarter throttle.

### **After break-in:**

The vehicle may now be operated normally.

## **Starting the engine**

1. Turn the key to “ON”.

### **NOTICE**

---

**The coolant temperature warning light and engine trouble warning light should come on, and then go off.**

**If a warning light does not go off, see Chapter 4 for the corresponding warning light circuit check.**

---

2. Apply the brake pedal.
3. Shift the drive select lever into the neutral position.
  - When the drive select lever is in the neutral position, the neutral indicator light should come on. If the neutral indicator light does not come on, ask a BMS dealer to inspect the electric circuit.
  - The engine can be started in any gear if the brake pedal is applied. However, it is recommended to shift into neutral before



starting the engine.

4. With your foot off the accelerator pedal, start the engine by turning the key to “START”.

If the engine fails to start, release the key, and then try starting it again. Wait a few seconds before the next attempt. Each attempt should be as short as possible, to preserve battery energy. **NOTICE: Do not crank the engine more than 5 seconds on each attempt, or starter damage could occur. Wait at least 5 seconds between each operation of the electric starter to let it cool.**

Do not turn the key to the “START” position with the engine running; otherwise, damage to the electric starter may result.

**TIP**

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For maximum engine life, never accelerate hard when the engine is cold!

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## **Drive select lever operation and reverse driving**

### **NOTICE**

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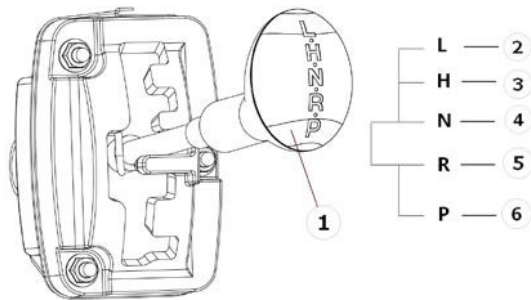
**Do not shift without coming to a complete stop and waiting for the engine to return to normal idle speed. Damage to the engine or drive train may occur.**

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### **Shifting: neutral to high and high to low**

1. Stop the vehicle, and take your foot off the accelerator pedal.

2. Apply the brake pedal then shift by moving the drive select lever along the shift guide. Make sure that the drive select lever is completely shifted into position.



- |                       |                  |
|-----------------------|------------------|
| 1. Drive select lever | 2. L (Low-range) |
| 3. H (High-range)     | 4. N (Neutral)   |
| 5. R (Reverse)        | 6. P (Parking).  |

3. Release the parking brake.
4. Release the brake pedal and press the accelerator pedal gradually.

### Shifting: neutral to reverse



**Before you shift into reverse, make sure there are no obstacles or people behind you. When it is safe to proceed, go slowly. Hitting an obstacle or person could result in serious injury or death.**


1. Stop the vehicle, take your foot off the accelerator pedal, and check behind you.
2. Apply the brake pedal.
3. Shift from neutral to reverse or vice versa by moving the drive select lever along the shift guide.
  - When in reverse, the reverse indicator light should be on. Due to the synchronizing mechanism in the engine, the light may not come on until the vehicle starts moving.

- If the light does not come on, ask a BMS dealer to inspect the reverse indicator light electrical circuit.
4. Release the parking brake.
  5. Check behind the vehicle for people or obstacles, and then release the brake pedal.
  6. Press the accelerator pedal gradually and continue to watch to the rear while backing.

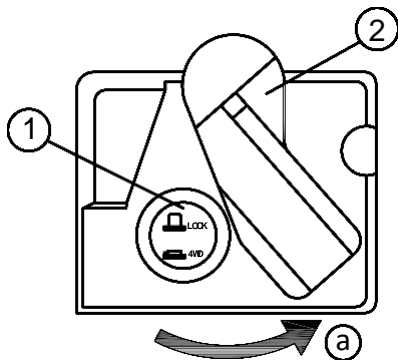
### **On-Command four-wheel-drive switch and differential gear lock switch**

You may notice that the vehicle handles differently in “2WD”, “4WD”, and “LOCK”. For example, you should expect that the vehicle will require more effort to turn in “LOCK”. Always stop the vehicle before changing between “2WD” and “4WD” or “4WD” and “LOCK”.

#### **“2WD”/“4WD”**


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

## On-Command differential gear lock switch “4WD”/“LOCK”



1. On-Command differential gear lock switch “4WD”/“LOCK”
2. Differential gear lock lever

To lock the differential gear in four-wheel drive, stop the vehicle, make sure the On-Command four-wheel-drive switch is set to “4WD”, move the differential gear lock lever to position ①, and then set the switch to “LOCK”. When the differential gear is locked, the differential gear

lock indicator light “DIFF. LOCK” will come on along with the differential gear lock indicator “” in the multi-function display. To unlock the differential gear, stop the vehicle and set the switch to “4WD”.

- When the switch is set to “LOCK” or “4WD”, the differential gear lock indicator and indicator light will flash until the differential gear is completely locked or unlocked.
- When the indicator and indicator light are flashing, turning the steering wheel back and forth will help the differential gear lock to engage or disengage.
- Driving before the differential gear is properly engaged or disengaged (e.g., when the indicator and indicator light are flashing) will cause the engine speed to be limited until the differential gear is completely engaged or disengaged.

## Parking

When parking, stop the engine and shift the drive select lever into the neutral position. Apply the parking brake to help prevent the vehicle from rolling. See Chapter 7 for more information on parking and parking on a slope.

## Loading

Take extra precautions when driving with a load or trailer. Follow these instructions and always use common sense and good judgment when carrying cargo or towing a trailer.

### Prepare your load or trailer



**Improper loading or towing can increase the risk of loss of control, an overturn, or other accident:**

- **Do not exceed the Maximum Loading Limits for the vehicle (see Chapter 6 and vehicle labeling).**
- **Keep weight in the cargo bed centered side to side, and as low and as far forward as possible. Top-heavy loads increase the risk of overturn. Be sure cargo is secured – a loose load could change**

handling unexpectedly or strike occupants.

- Do not exceed the maximum tongue weight.
  - Make sure the load does not interfere with your control or ability to see where you are going.
  - Tie down cargo in the trailer securely. Make sure cargo in the trailer cannot move around. A shifting load can cause an accident.
- 

Use the hooks equipped on the cargo bed to tie down loads.

Choose a trailer hitch drawbar designed for use with a 5 cm (2 in) receiver. (See Chapter4 for more information.)

You can measure tongue weight with a bathroom scale. Put the tongue of the loaded trailer on the scale with the tongue at hitch height. Adjust the load in the trailer, if necessary, to reduce the weight on hitch. If you are carrying cargo and towing a trailer, include the tongue weight in the maximum vehicle load limit.

## **Operating when loaded with cargo or towing a trailer**

Drive more slowly than you would without a load. The more weight you carry, the slower you should go. Although conditions vary, it is good practice to keep the vehicle in low gear whenever you are carrying heavier loads or when towing a trailer.



---

**Carrying loads or towing a trailer can increase the risk of loss of control, an overturn, or other accident. To reduce the risk of an accident:**

- **Reduce speed, operate in low gear only, and allow more room to stop. A heavier vehicle takes longer to stop.**
  - **Avoid hills and rough terrain. Choose terrain carefully. Use extreme caution when towing or carrying a load on inclines.**
  - **Turn gradually and go slowly**
-

## **Pulling something other than a trailer**

BMS recommends that loads be transported in the bed or in a trailer. If you need to move an object a short distance use a winch and follow the winch manufacturer's instructions.

If you choose to use something other than a winch use extreme caution, follow the manufacturer's instructions for that product, and only attach to the hitch or hitch bracket of the vehicle. **WARNING! Improperly pulling can cause serious injury or death. Never exceed the Pulling Load limit of the vehicle. Avoid pulling on inclines.**

Pulling objects on the ground can be more hazardous than pulling a trailer. It may be difficult to predict how the load will affect vehicle operation. That effect could also change depending upon terrain or what obstacles might be in the object's path.





## BASIC GUIDE FOR SAFE USE

As a Ranch pony owner you are responsible for the safe and proper operation of this vehicle. Read this chapter and review the safety instructions in Chapter 2 before operating the vehicle. Use these chapters and the labels on the vehicle to instruct new operators and passengers. Do not allow anyone else to operate the vehicle or ride as a passenger if you are unsure that he/she is willing and able to follow these instructions.



---

**Follow these instructions to reduce your risk of an accident and to reduce the risk of serious injury or death in the event of an accident.**

### KNOW YOUR VEHICLE

This off-road vehicle will handle and maneuver differently from cars, ATVs, go-carts, golf-cars and grounds-keeping vehicles. The vehicle has higher ground clearance and other features to handle rugged terrain, and as a result, can overturn in situations where some vehicles may not. This would include vehicles made primarily for pavement, roads, improved paths, or grounds-keeping. If you do not use care in maneuvering the vehicle, you can cause it to roll over even on flat, open areas.

Doing things with this vehicle that some people do for thrills in other vehicles (such as sideways sliding, skidding, fishtailing or donuts) have led to side rollovers. These rollovers can result in crushed limbs and other serious injuries or death to drivers or passengers.

As the owner/operator, it is your responsibility to protect yourself and your passenger from accidents, including rollovers. The vehicle has many features, including a protective structure and seat belts, to help protect occupants, but the best way to avoid injuries is to avoid accidents. There is a risk of injury or death in any accident, even with these safety features.

### **Driver requirements**

- This vehicle is intended for use only by an operator 16 or older with a valid motor vehicle license.



- The driver must be able to place both feet flat on the floorboard while seated upright with his/her back against the backrest.
- Do not drive after using drugs or alcohol. Remove the ignition key when the vehicle is not in use to prevent unauthorized use of the machine.

**Parents:**

Many states have implemented new motor vehicle licensing requirements for young drivers. These requirements are in response to the disproportionately high rate of crashes involving youthful drivers. As with automobiles, supervise younger drivers and consider setting rules and putting limits on how, when, and where this vehicle can be used.

**Passenger requirements**

This vehicle is designed for the operator and one passenger. Allowing passengers to ride improperly can lead to serious injury or death. As the operator, you are responsible for your passenger.

- Your passenger must be able to place both feet on the floorboard while seated upright with his/her back against the backrest.
- Your passenger must be able to reach and hold the handholds.
- Allow only one passenger in the vehicle and only in the designated passenger seat. Do not carry any other passengers. Do not carry passengers in the cargo bed.
- Do not allow someone to ride as a passenger who has been using drugs or alcohol.
- Do not allow children who need child

safety seats or booster seats in the UTV. The seat belt is not designed to restrain automotive child safety seats.

### Occupant protection system



---

**Do not make changes to the occupant protection system. If you install aftermarket products or have your vehicle modified, you may put yourself and others at greater risk of serious injury or death. You are responsible for any such changes to the vehicle.**

---

This vehicle comes with a variety of features to help reduce the risk of driver and passenger injury. These features work together, and when properly used, these features will help protect the occupants in the event of an accident. If these features are not used properly, they can cause injury.

### Protective structure

The vehicle cage/frame provides a protective structure that helps limit intrusions by branches or other objects and may reduce your risk of injury in accidents. The protective structure will not protect occupants in all rollovers or accidents.

Body parts outside of vehicle can be struck by passing objects or crushed during vehicle rollover. Do not put your hands or feet outside of the vehicle for any reason. Do not hold onto the door, cage/frame or hip restraint. Wear your seat belt and helmet.

If you think or feel that the vehicle may tip or roll, do not put your hands or feet outside the vehicle for any reason. You will not be able to stop the vehicle from tipping over using your body. Any part of your body (arms, legs, or head) outside of the vehicle can be crushed by the vehicle cage/frame.

### **Seat belts**

Seat belts should be worn by both driver and passenger. Driver must be sure that the passenger is belted before driving.

- Be sure the seat belt is not twisted, is close-fitting across the hips and chest, and is latched securely.
- Do not wear the lap belt across the abdomen or stomach.
- Do not put the shoulder belt behind the back.

Failure to use seat belts properly may lead to an increased likelihood and severity of injury.

An unbelted occupant may strike the interior of the vehicle, the protective structure, or other objects in an accident or during operation. You may also fall completely out or be partially ejected from the vehicle, which may lead to being crushed between the ground and the vehicle. Wearing the seat belt helps you remain in the vehicle – the handhold is not a substitute for using a seat belt.

A crash can damage the restraint systems in your vehicle. A damaged restraint system may not properly protect the person using it, resulting in serious injury or death in a crash. To help make sure your restraint systems are working properly after a crash, have them inspected and any necessary replacements made as soon as possible.

To wear the seat belt properly, do the following:

1. Hold the latch plate as you pull the belt across your lap and chest. Make sure the belt is not twisted and is not caught on any portion of the vehicle, your clothing, or any equipment you are carrying.
2. If the latch plate is not positioned in the correct location along the seat belt, squeeze the latch plate ends together along its long edges in order to more easily adjust its location up or down along the length of the belt.
3. Push the latch plate into the buckle until it clicks. Pull up on the latch plate to make sure it is secure.
4. Put the lap portion of the belt low on your hips. Pull up on the shoulder part so the belt is snug across your hips. Be sure the seat belt is not caught on the hip restraint

or other object.

5. Position the shoulder belt over your shoulder and across your chest. The shoulder belt should fit against your chest. If it is loose, pull the belt out all the way and then let it retract.
6. Check if the seat belt shoulder position suits the size of the driver and passenger.
7. To release the buckle, firmly press the release button.

### **Passenger handholds**

Handholds are provided to grip during operation to maintain proper position and balance. Holding onto the handholds helps to reduce the likelihood that the passenger puts a hand outside the vehicle if the vehicle begins to tip. There are two handholds on the protective structure. The driver should make sure the passenger is holding onto the handholds with both hands before operating the vehicle.

### **Seat and hip restraints**

The seat and hip restraints are designed to help keep you in the vehicle. Do not hold onto hip restraint when the vehicle is moving. Your hand or arm may be struck by objects or crushed against outside objects or the ground during a rollover.

### **Floorboard**

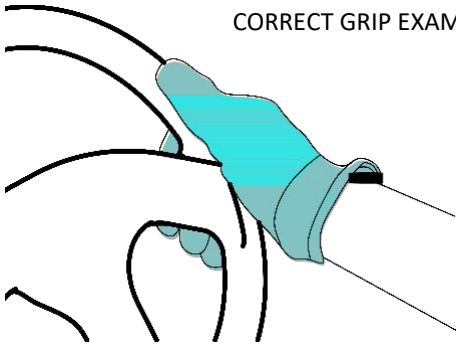
The floorboard allows you to brace your feet, which helps you keep your body in the vehicle in the event of an accident or rollover. Keep your feet on the floorboard during operation.

### **Steering wheel**

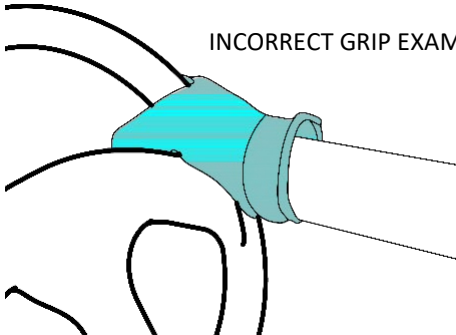
Keep both hands on the steering wheel. Do not hold the steering wheel with your thumbs inside the rim. Keep your palms on the outside of the steering wheel. Similar to other off-road vehicles, if the vehicle hits a deep rut or large obstacle, the steering wheel could briefly jerk in one direction or back and forth as the tires and vehicle respond to the obstacle. This quick motion could injure your thumbs or wrist if your thumbs or hand(s) are inside the steering wheel. Grip the steering wheel so that your thumbs will not be hit by the spokes. As an example, see the illustration.



CORRECT GRIP EXAMPLE



INCORRECT GRIP EXAMPLE



## LEARNING TO OPERATE YOUR VEHICLE

### Personal protective equipment

Both driver and passenger should wear the following to reduce risk of injury in an accident:

- Approved motorcycle helmet that fits properly
- Eye protection (goggles, helmet face shield, or protective eyewear)
- Over-the-ankle boots, gloves, long-sleeved shirt or jacket, and long pants

An approved helmet and other personal protective equipment can help in a variety of ways, including:

- Reduce the severity of injuries if any part of you is outside the vehicle cage/frame protective structure during a rollover.
- Help protect you if outside objects intrude inside the vehicle during operation.
- Help protect you in the event of vehicle impact with an obstacle.

Wear eye protection when operating or riding the vehicle to reduce the risk of a serious accident or injury. Eye protection, such as a face shield or goggles, may reduce the risk of foreign material getting in your eyes and help prevent loss of vision.

### **Practice for new vehicle users**

You should become familiar with the performance characteristics of the vehicle in a large, flat area that is free of obstacles and other vehicles. Practice controlling the accelerator pedal, brakes, steering, and drive select lever. Drive at slow speeds with gradual acceleration and turning. Practice smooth throttle application. Practice slowing down before turning. Practice maintaining a steady throttle through the turn. Avoid higher speeds until you are thoroughly familiar with the operation of your vehicle. Remember, driving aggressively or making abrupt maneuvers even on flat, open areas can cause side rollovers.

Become familiar with the way the vehicle feels in low and high ranges, first in two-wheel drive “2WD” and then in and four-wheel drive with the differential four-wheel drive “4WD” locked “LOCK”. Steering may take more effort in four-wheel drive with the differential locked “LOCK”. Also practice driving in reverse.

Take the time to learn basic operation of the vehicle before attempting more difficult maneuvers.

### **Getting ready to ride**

Perform the Pre-Operation Checks on Chapter 5. Follow the instructions starting on Chapter 6 to start the engine.

## Turning

Use care in turns – turning the steering wheel too far or too fast can result in loss of control or a rollover. Slow down before entering turns. When making tight turns from a standstill or at slow speeds, avoid sudden or hard acceleration. Driving aggressively or making abrupt maneuvers even on flat, open areas can cause side rollovers. Avoid sideways sliding, skidding, or fishtailing, and never do donuts. If you feel the vehicle begin to slide sideways or fishtail during a turn, steer into the direction of the slide, if possible, and gradually let off the accelerator pedal to regain directional control and avoid rollover. For example, if you feel the back of the vehicle start to slide to your right, steer to the right.

If you think or feel that the vehicle may tip or roll, keep your body completely inside the protective structure of the vehicle:

- Brace yourself by pressing your feet firmly on the floorboards and keep a firm grip on the steering wheel or handholds.
- Do not put your hands or feet outside of the vehicle for any reason. Do not try to stop a tip over using your arm or leg.

## Accelerating

With the engine idling in neutral and your foot on the brake, shift the drive select lever into low or high. **NOTICE: Do not shift from low to high or vice versa without coming to a complete stop and waiting for the engine to return to normal idle speed – damage to the engine or drive train may occur. Then release the parking brake.** Press the accelerator pedal slowly and smoothly. The centrifugal clutch will engage and the vehicle will begin to accelerate.

Avoid higher speeds and sudden or hard acceleration until you are thoroughly familiar with the operation of your vehicle. Avoid sudden or hard acceleration in any turn.

## Braking

When slowing down or stopping, take your foot off the accelerator pedal and press the brake pedal smoothly. Improper use of the brakes can cause the tires to lose traction, reducing control of the vehicle and increasing the possibility of an accident.

Braking ability is affected by type of terrain. In most cases, gradual application of the brakes is more effective than abrupt braking, particularly on loose surfaces, such as gravel. Always allow for greater braking distance on rough, loose, or slippery surfaces.

## **Engine braking**

Engine compression braking is designed to assist you when operating your vehicle off- road. With this feature, the engine helps slow the vehicle down after you take your foot off the accelerator. Engine braking is more noticeable in four-wheel drive. Application of vehicle brakes provides additional stopping power.

## **Leaving the vehicle**

Do not get out of the vehicle while the engine is running and the drive select lever is in any gear. There is a risk of injury because:

- Children or others may accidentally press the accelerator pedal.
- Objects tossed into the vehicle may strike the accelerator pedal.
- The parking brake may not keep the vehicle from accelerating.

Unwanted vehicle movement can cause serious injury or death, and it may be dangerous to try to stop the vehicle.

## **Parking on a flat area**

When parking on a flat area, stop the engine and shift the drive select lever into the neutral position. Apply the parking brake to help prevent the vehicle from rolling.

### **Parking on a slope**

The parking brake acts only on the rear wheels when in “2WD”. For the parking brake to take effect on all four wheels, shift to “LOCK” before stopping the engine.

If you park on a hill that is too steep the vehicle may roll out of control. Never park on hills that are so steep you cannot walk up them easily. If you must park on an incline follow these instructions:

1. Bring the vehicle to a stop by applying the brake pedal.
2. Put the vehicle in “LOCK”.
3. Turn the key to “OFF”.
4. With the brake pedal applied, set the parking brake.
5. Block the front and rear wheels with rocks or other objects.

### **Operation on different surfaces and terrains**

Go slowly and proceed with caution when operating on an unfamiliar surface or terrain. This vehicle may handle differently in certain types of terrains or on certain surfaces. You may come upon hidden rocks, bumps, or holes without enough time to react. To avoid loss of control or rollover, always be alert to changing surfaces or terrain when operating the vehicle.

This vehicle has higher ground clearance and other features to handle rugged terrain, and as a result, can overturn in situations where some vehicles may not. Abrupt maneuvers or aggressive driving can cause loss of control, including rollovers – even on flat, open areas. These rollovers can result in crushed limbs and other serious injuries or death to drivers or passengers.

## Hills

Choose carefully which hills you attempt to climb or descend. Avoid hills with slippery surfaces or those where you will not be able to see far enough ahead of you. Use common sense and remember that some hills are too steep for you to climb or descend. Use proper driving techniques to avoid rearward, forward, or sideways rollovers on hills and slopes.

Drive straight up and down inclines, not across them. If crossing a hill is unavoidable, drive slowly. Turn downhill immediately if you feel the vehicle may tip.

### **If you think or feel the vehicle may tip or roll:**

- Brace yourself by pressing your feet firmly on the floorboards and keep a firm grip on the steering wheel or handholds.
- Do not put your hands or feet outside of the vehicle for any reason.

## Uphill

Do not attempt to climb hills until you have mastered basic maneuvers on flat ground. Drive straight up hills, and avoid crossing the side of a hill, which increases your risk of rollover. Practice first on gentle slopes before attempting steeper hills. Always check the terrain carefully before attempting any hill.

To climb a hill, you need traction, momentum, and steady throttle. For more traction and control for climbing steeper and/or rougher slopes, shift into low gear and select “4WD” or “LOCK”. Travel fast enough to maintain momentum, but not so fast that you cannot react to changes in the terrain as you climb.

Slow down when you reach the crest of the hill if you cannot see clearly what is on the other side – there could be another person, an obstacle, or a sharp drop-off.



If you start to lose traction or momentum when climbing, and decide you will be unable to continue, use the brakes to stop. Do not attempt to turn the vehicle around. With your foot on the brake pedal, look behind you and plan your descent. Shift the drive select lever into reverse so you can use engine braking to slow your descent. Release the brake and begin to coast down the hill. Use engine braking as much as possible, gently applying the brakes when necessary.

### **Downhill**

Check the terrain carefully before going downhill. When possible, choose a path that lets you drive your vehicle straight downhill. Choose your path carefully and drive slowly enough to be able to react to obstacles that you encounter.

For more traction and control, before going down steeper and/or rougher slopes, shift into low gear and select “4WD” or “LOCK”. Engine braking will help you go downhill slowly. Go as slowly as possible. If you begin to go too fast, apply the brakes gently. Avoid hard application of the brakes, which could cause the vehicle to slide.

If you are sliding or skidding, try to steer in the direction the vehicle is sliding, to regain control. For example, if you feel the back of the vehicle start to slide to your right, steer to the right.

If you must turn on the hill to avoid an obstacle, do so slowly and carefully. If the vehicle starts to tip, immediately 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 want to go.

### **Rough terrain**

Operation over rough terrain should be done with caution.

- Look for and avoid obstacles that could cause damage to the vehicle or could lead to a rollover or accident.
- Do not drive in a way that will get the vehicle airborne, as injury, loss of control, and damage to the vehicle could occur.

### **Pavement**

This vehicle is designed for off-road use only. Avoid paved surfaces. Turn gradually and go slowly if you must drive on pavement.

## Water

If you must cross shallow, slow-moving water up to the depth of the vehicle's floorboards, choose your path carefully to avoid sharp drop-offs, large rocks, or slippery surfaces that could cause the vehicle to overturn. Never operate through water deeper than 33 cm(13 in) or fast-flowing water. Choose a path where both your entrance into and exit point from the water is a gradual incline. Determine the water depth and currents before crossing.

Operating this vehicle through deep or fast-flowing water can lead to loss of control or overturn. To reduce your risk of drowning or other injuries, use care when crossing through water.

Wet brakes may have reduced effectiveness. After leaving the water, test your brakes. If necessary, apply the brakes several times to let friction dry out the linings.

### NOTICE

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**After driving your vehicle in water, be sure to drain the trapped water by removing the check hoses at the bottom of the air filter case and air duct and the V-belt case drain plug. Wash the vehicle in fresh water if it has been operated in salt water or muddy conditions.**

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### **Loose terrain/slippery terrain**

When driving on slippery terrain, including wet, muddy, or icy conditions, as well as loose gravel, be aware that you could begin skidding or sliding. To avoid loss of control, slow down and put the vehicle in four-wheel drive before driving on a slippery surface and plan your path to avoid making abrupt maneuvers.

If you feel the vehicle begin to slide sideways or fishtail during a turn, steer into the direction of the slide if possible, to regain directional control. For example, if you feel the back of the vehicle start to slide to your right, steer to the right.

### **Encountering obstacles**

If you cannot go around an obstacle, such as a fallen tree or a ditch, stop the vehicle where it is safe to do so. Set the parking brake and get out to inspect the area thoroughly. Look from both your approach side and exit side. If you believe you can continue safely, choose the path that will allow you to get over the obstacle and at as close to a right angle as possible to enough to maintain your momentum but still minimize vehicle tipping. Go only fast give yourself plenty of time to react to changes in conditions.

If there is any question about your ability to maneuver safely over the obstacle, you should turn around if the ground is flat and you have the room or back up until you find a less difficult path.

## PERIODIC MAINTENANCE AND ADJUSTMENT

Periodic inspection, adjustment, and lubrication will keep your vehicle in the safest and most efficient condition possible.

Safety is an obligation of the vehicle owner/operator. The most important points of vehicle inspection, adjustment, and lubrication are explained on the following pages.



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**Failure to properly maintain the vehicle or performing maintenance activities incorrectly may increase your risk of injury or death during service or while using the vehicle. If you are not familiar with vehicle service, have a BMS dealer perform service.**

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**Turn off the engine when performing maintenance unless otherwise specified.**

- **A running engine has moving parts that can catch on body parts or clothing and electrical parts that can cause shocks or fires.**
  - **Running the engine while servicing can lead to eye injury, burns, fire, or carbon monoxide poisoning – possibly leading to death. See page 2-8 for more information about carbon monoxide.**
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**Brake discs, calipers, drums, and linings can become very hot during use. To avoid possible burns, let brake components cool before touching them.**

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## Periodic maintenance chart for the emission control system

- For vehicles not equipped with an odometer or hour meter, follow the month maintenance intervals.
- For vehicles equipped with an odometer or an hour meter, follow the km (mi) or hours maintenance intervals. However, keep in mind that if the vehicle isn't used for a long period of time, the month maintenance intervals should be followed.
- Items marked with an asterisk should be performed by a BMS dealer as they require special tools, data and technical skills.

ITEM	ROUTINE	Whichever comes first	INITIAL			EVERY			
			month	1	3	6	6	12	12
			Km(mi)	320 (200)	1200 (750)	2400 (1500)	2400 (1500)	4800 (3000)	6000 (3750)
			hour	20	75	150	150	300	325
<b>Fuel line*</b>	·Check fuel hose for cracks or damage. ·Replace if necessary.				○	○	○		
<b>Fuel Filter</b>	·Check fuel filter for jam, clean it. ·Replace if necessary.							○	
<b>Valves*</b>	·Check valve clearance. ·Adjust if necessary.		○		○	○	○		

<b>Spark plug</b>	<ul style="list-style-type: none"> <li>·Check condition.</li> <li>·Adjust gap and clean.</li> <li>·Replace if necessary.</li> </ul>	○	○	○	○	○	
<b>Crankcase breather system*</b>	<ul style="list-style-type: none"> <li>·Check breather hose for cracks or damage.</li> <li>·Replace if necessary.</li> <li>·Check the fuel and vapor separator oil hose.</li> <li>·Open the oil hose plug to draw off the refuse oil if necessary.</li> </ul>			○	○	○	
<b>Electronic Fuel Injection System</b>	<ul style="list-style-type: none"> <li>·Check regularly. Find out reason if it is unusual. Replace the parts if necessary.</li> <li>·Come to the appointed dealer to repair if necessary.</li> </ul>	○	○	○	○	○	
<b>Exhaust system*</b>	<ul style="list-style-type: none"> <li>·Check for leakage.</li> <li>·Tighten if necessary.</li> <li>·Replace gasket(s) if necessary.</li> </ul>			○	○	○	
<b>Spark arrester</b>	<ul style="list-style-type: none"> <li>·Clean</li> </ul>			○	○	○	

## General maintenance and lubrication chart

ITEM	ROUTINE	Whichever comes first		INITIAL			EVERY		
			month	1	3	6	6	12	12
			Km(mi)	320 (200)	1200 (750)	2400 (1500)	2400 (1500)	4800 (3000)	6000 (3750)
			hour	20	75	150	150	300	325
<b>Cooling system*</b>	<ul style="list-style-type: none"> <li>·Check coolant leakage.</li> <li>·Repair if necessary.</li> <li>·Replace coolant every 24 months.</li> </ul>		○	○	○	○	○		
<b>Air filter element</b>	<ul style="list-style-type: none"> <li>·Clean.</li> <li>·Replace if necessary.</li> </ul>	Every 20–40 hours (More often in wet or dusty areas.)							
<b>Water hose installed in the air filter connecting hose</b>	<ul style="list-style-type: none"> <li>·Check the water hose installed in the air filter connecting hose.</li> <li>·Open the water hose plug to draw off the water if necessary.</li> </ul>			○	○	○			
<b>Engine oil</b>	<ul style="list-style-type: none"> <li>·The inspection engine oil level before each operation.</li> <li>·Replace (warm engine before draining).</li> </ul>		○		○	○	○		
<b>Engine oil filter cartridge</b>	<ul style="list-style-type: none"> <li>·Replace.</li> </ul>		○			○	○		
<b>Final gear oil</b>	<ul style="list-style-type: none"> <li>·Check oil level/oil leakage.</li> <li>·Replace.</li> </ul>		○				○		
<b>Differential gear oil</b>									



<b>Front brake*</b>	·Check operation/brake pad wear/fluid leakage/see Chapter 8	○	○	○	○	○	
<b>Rear brake*</b>	·Correct if necessary. Replace pads if worn to the limit.	○	○	○	○	○	

<b>Parking brake*</b>	·Check operation and free play/brake pad wear. ·Correct if necessary. Replace pads if worn to the limit.	○	○	○	○	○	
<b>Accelerator pedal*</b>	·Check operation and free play.	○	○	○	○	○	
<b>V-belt*</b>	·Check operation. ·Check for wear, cracks, or damage.	Every 4000 KM					
<b>Wheels*</b>	·Check balance/damage/run out. ·Repair if necessary.	○			○	○	
<b>Wheel bearing*</b>	·Check bearing assemblies for looseness/damage ·Replace if damaged.	○		○	○	○	
<b>Front and rear suspension*</b>	·Check operation and lithium-soap-based grease. ·Correct if necessary.			○	○	○	
<b>Steering system*</b>	·Check operation and for looseness/Replace if damaged. ·Check toe-in/Adjust if necessary.	○	○	○	○	○	
<b>Rear upper and lower knuckle pivots*</b>	·Lubricate with lithium-soap-based grease.			○	○	○	
<b>Drive shaft spline*</b>	·Lubricate with lithium-soap-based grease.			○	○	○	
<b>Engine mount*</b>	·Check for cracks or damage. ·Check bolt tightness.			○	○	○	
<b>Front and rear axle</b>	·Check operation.	○				○	

<b>boots*</b>	·Replace if damaged.						
<b>Fittings and fasteners</b>	·Check all chassis fittings and fasteners. ·Correct if necessary.	○	○	○	○	○	
<b>Drive shaft universal joint*</b>	·Check regularly for looseness; ·Correct if necessary.			○	○	○	

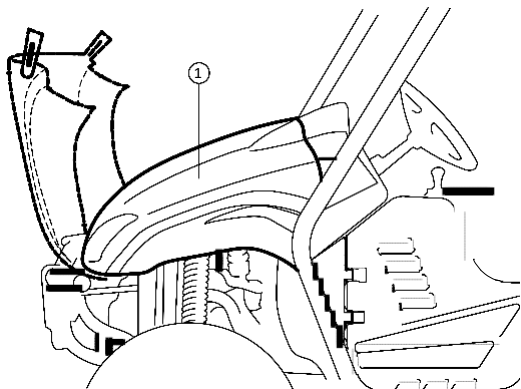
## TIP

- Some maintenance items need more frequent service if you are riding in unusually wet, dusty, sandy or muddy areas, or at full throttle.
- Hydraulic brake service
  - Regularly check and, if necessary, correct the brake fluid level.
  - Every two years replace the internal components of the brake master cylinder and calipers, and change the brake fluid.
  - Replace the brake hoses every four years and if cracked or damaged.

## Hood

### To open

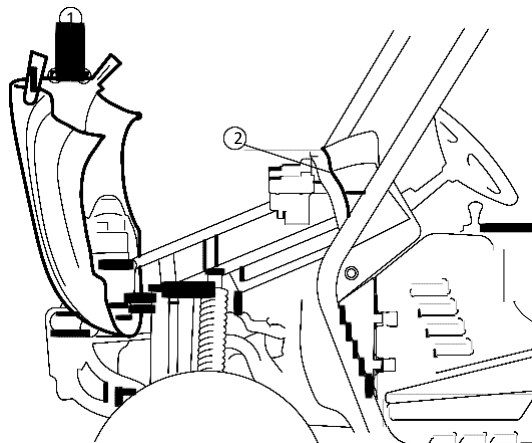
Unhook the hood latches, and then slowly tilt the hood up until it stops.



1. Hood

### To close

Lower the hood slowly to its original position, and then hook the hood latches. Secure projections ① on the rear of the hood into slots ②



on the back of the instrument panel.

1. projection (x2)      2. Slot (x2)

## NOTICE

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- **Make sure that all cables and wires are in place when closing the hood.**
  - **Do not drive the vehicle with the hood open, unlatched, or removed.**
- 

## Console

### To remove

1. Remove the seats. (See Chapter 4 for seat removal and installation procedures.)
2. Remove the parking brake lever boot and the drive select lever boot.
3. Pull the console forward and upward (the drive select lever boot will come loose). To ease removal of the console, shift the drive select lever into the low gear “L” position.

## To install

1. Place the console in its original position.
2. Install the parking brake lever boot and drive select lever boot.
3. Install the seats.

## NOTICE

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- **Make sure to position the seat belt buckles to the outside of the console.**
  - **When installing the console, be sure not to pinch the cables or wires.**
  - **Make sure that the groove at the bottom of the parking brake lever boot and the drive select lever boot fits securely around the edge of the hole in the console.**
- 

## Engine oil and oil filter cartridge

Check engine oil level before each operation. In addition, change the oil and the oil filter cartridge at the intervals specified in the periodic maintenance and lubrication chart.

## To check the engine oil level

1. Park the vehicle on a level surface.
2. Remove the console. (See Chapter 8 for console removal and installation procedures.)
3. Check the engine oil level on a cold engine

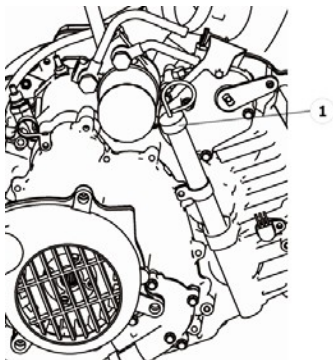
## TIP

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If the engine was started before checking the oil level, be sure to warm up the engine sufficiently, and then wait at least 10 minutes until the oil settles for an accurate reading.

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4. Remove the engine oil dipstick, and then wipe it off with a clean rag.



1. Engine oil dipstick

5. Insert the dipstick completely into the oil filler hole, and then remove it again to check the oil level.

#### TIP

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

---

6. If the engine oil is at or below the minimum level mark, add sufficient oil of the recommended type to raise it to the correct level.
7. Insert the dipstick completely into the oil filler hole.
8. Reinstall the console.

## To change the engine oil

1. Park the vehicle on a level surface.
2. Remove the console. (See Chapter 8 for console removal and installation procedures.)
3. Start the engine, warm it up for several minutes, and then turn it off.
4. Place an oil pan under the engine to collect the used oil, and then remove the dipstick.
5. Remove the engine oil drain bolt and its gasket to drain the oil from the crankcase.

### TIP

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Skip steps 6-10 if the oil filter cartridge is not being replaced.

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6. Lift the cargo bed up. (See Chapter 4 for cargo bed lifting and lowering procedures.)

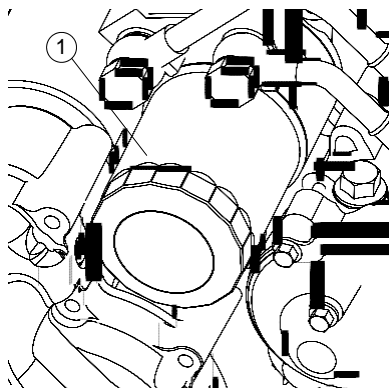
7. Remove the oil filter cartridge with an oil filter wrench. Make sure that the O-ring is removed together with the oil filter cartridge. If the O-ring remains attached to the crankcase, oil leakage may occur.

### TIP

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An oil filter wrench is available from a BMS dealer.

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1. Oil filter wrench position

8. Apply a light coat of clean engine oil to the O-ring of the new oil filter cartridge.

TIP

Make sure that the O-ring is properly seated.

9. Install the new oil filter cartridge with an oil filter wrench, and then tighten it to the specified torque with a torque wrench.
10. Reinstall the engine oil drain bolt and its new gasket, and then tighten the bolt to the specified torque.
11. Refill with the specified amount of recommended engine oil, and then insert the dipstick completely into the oil filler hole.

Oil quantity: 2.3L

TIP

Be sure to wipe off spilled oil on any parts after the engine and exhaust system have cooled down.

NOTICE

- **In order to prevent clutch slippage(since the engine oil also lubricates the clutch), do not mix any chemical additives with oil. 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.**

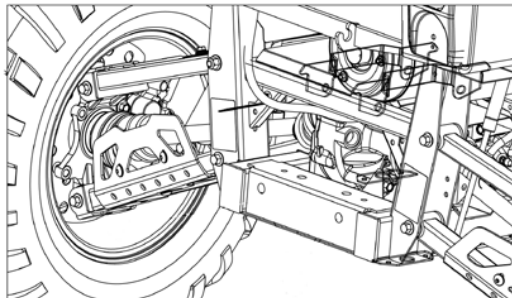


12. Start the engine, and then let it idle for several minutes while checking it for oil leakage. If oil is leaking, immediately turn the engine off and check for the cause.
13. Turn the engine off, wait at least 10 minutes, and then check the oil level and correct it if necessary.
14. Reinstall the console.

## **Final gear oil**

### **Checking the final gear oil level**

1. Park the vehicle on a level surface.
2. Remove the final gear oil filler bolt and its O-ring, and then check the oil level in the final gear case. The oil level should be at the brim of the filler hole.



3. If the oil is below the brim of the filler hole, add sufficient oil of the recommended type to raise it to the correct level. **NOTICE: Be sure no foreign material enters the final gear case.**
4. Reinstall the oil filler bolt and its new O-ring, and then tighten the bolt to the specified torque.

### **Changing the final gear oil**

1. Park the vehicle on a level surface.
2. Remove the final gear case guard by removing the bolts and the collars.
3. Place an oil pan under the final gear case to collect the used oil.
4. Remove the final gear oil filler bolt and its O-ring, the final gear oil drain bolt and its gasket to drain the oil.
5. Reinstall the drain bolt and its new gasket, and then tighten the bolt to the specified torque.

Tightening torque:

Final gear oil drain bolt:

20 Nm (2.0 m·kgf, 14 ft·lbf)

6. Refill with the recommended final gear oil up to the brim of the filler hole. **NOTICE:**  
**Be sure no foreign material enters the final gear case.**

Recommended oil:

SAE 80 API GL-4 Hypoid gear oil

Oil quantity:

0.23L

7. Reinstall the oil filler bolt and its new O-ring, and then tighten the bolt to the specified torque.

Tightening torque:

Final gear oil filler bolt:

23 Nm (2.3 m·kgf, 17 ft·lbf)

8. Check for oil leakage. If oil leakage is found, check for the cause.

9. Install the final gear case guard by installing the bolts and the collars, and then tightening the bolts to the specified torque.

Tightening torque:

Final gear case guard bolt:

7 Nm (0.7 m·kgf, 5.1 ft·lbf)

## Differential Gear Oil

### Checking the differential gear oil level

1. Park the vehicle on a level surface.
2. Remove the differential gear oil filler bolt and its gasket, and then check the oil level. It should be up to the brim of the filler hole.
3. If the level is low, add sufficient oil of the recommended type to raise it to the specified level. **NOTICE: Be sure no foreign material enters the differential gear case.**
4. Check the gasket for damage, and re- place it if necessary.
5. Reinstall the differential gear oil filler bolt and its gasket, and then tighten the bolt to the specified torque.

Tightening torque:

Differential gear oil filler bolt:

23 Nm (2.3 m·kgf, 17 ft·lbf)

## Changing the differential gear oil

1. Park the vehicle on a level surface.
2. Remove the differential gear case guard by removing the bolts and the collars.
3. Place an oil pan under the differential gear case to collect the used oil.
4. Remove the differential gear oil filler bolt, the differential gear oil drain bolt and their gasket to drain the oil.
5. Reinstall the differential gear oil drain bolt and its new gasket, and then tighten the bolt to the specified torque.
6. Refill the differential gear case with the recommended oil. **NOTICE: Be sure no foreign material enters the differential gear case.**
7. Check the oil filler bolt gasket for damage, and replace it if necessary.
8. Reinstall the differential gear oil filler bolt and its gasket, and then tighten the bolt to the specified torque.
9. Check for oil leakage. If oil leakage is found, check for the cause.
10. Install the differential gear case guard by installing the bolts and the collars, and then tightening the bolts to the specified torque.

Recommended oil:

SAE 80 API GL-4 Hypoid gear oil

Oil quantity:

0.28L

Tightening torque:

Differential gear oil filler bolt:

23 Nm (2.3 m·kgf, 17 ft·lbf)

Tightening torque:

Differential gear case guard bolt:

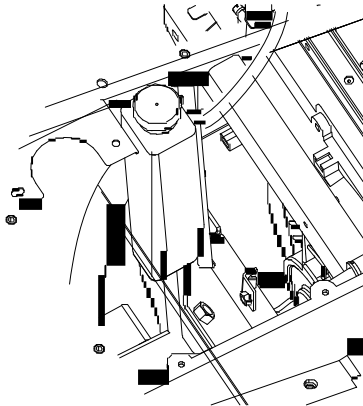
7 Nm (0.7 m·kgf, 5.1 ft·lbf)

## Coolant

The coolant level should be checked before each ride.

### Checking the coolant level

1. Park the vehicle on a level surface.
2. Check the coolant level in the coolant reservoir when the engine is cold as the coolant level varies with engine temperature.



## TIP

---

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

---

3. If the coolant is at or below the minimum level mark, remove the coolant reservoir cap, add coolant to the maximum level mark, reinstall the reservoir cap.

## Changing the coolant

The coolant must be changed by a BMS dealer at the intervals specified in the periodic maintenance and lubrication chart. Adding water instead of coolant lowers the antifreeze content of the coolant. If water is used instead of coolant, have a BMS dealer check the anti-freeze content of the coolant as soon as possible.

The radiator fan is automatically switched on or off according to the coolant temperature in the radiator.

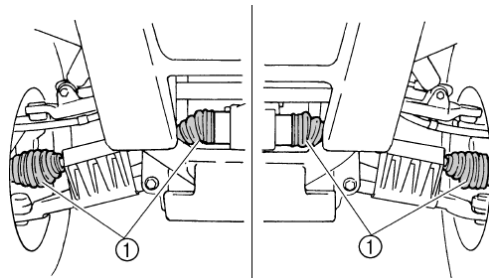
### NOTICE

**Mix antifreeze with distilled water only. However, if distilled water is not available, soft water may be used for refilling.**

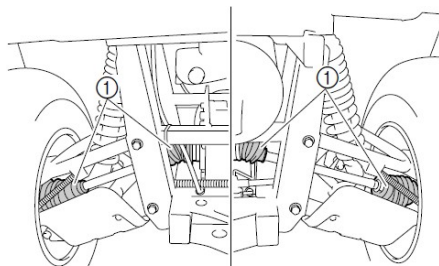
If your vehicle overheats, see Chapter 8 for instructions.

## Axle boots

Check the axle boots for holes or tears. If any damage is found, have them replaced by a BMS dealer.



1. Front Axle Boots (x2 each side)

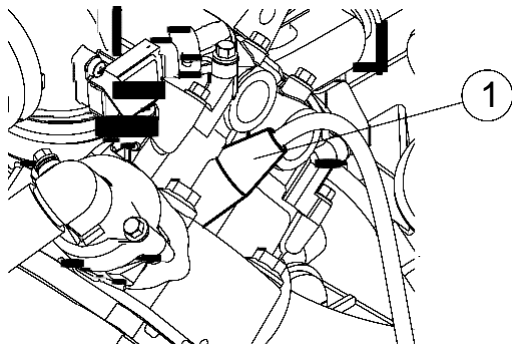


2. Rear Axle Boot (x2 each side)

## Spark Plug Inspection

### Removal

1. Remove the console. (See Chapter 8 for console removal and installation procedures.)
2. Remove the spark plug cap.



1. Spark plug cap

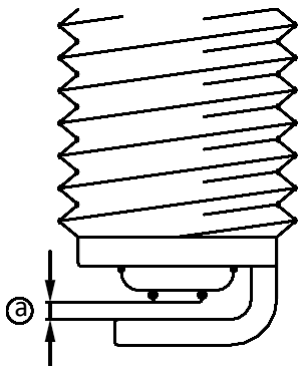
3. Use the spark plug wrench in the tool kit to remove the spark plug as shown.

### Inspection

The spark plug is an important engine component and is easy to inspect. The condition of the spark plug can indicate the condition of the engine.

The ideal color of the porcelain insulator around the center electrode is a medium-to-light tan for a vehicle that is being ridden normally. You should periodically remove and inspect the spark plug because heat and deposits will cause the spark plug to slowly break down and erode. If electrode erosion becomes excessive, or if carbon and other deposits are excessive, you should replace the spark plug with the specified plug. Measure the spark plug gap with a wire thickness gauge and, if necessary, adjust the gap to specification.





a. Spark plug gap

Spark plug gap:

0.8-0.9mm(0.031-0.035in)

## Installation

1. Clean the surface of the spark plug gasket and its mating surface, and then wipe off any grime from the spark plug threads.
2. Install the spark plug and tighten it to the specified torque. If a torque wrench is not available when you are installing the spark plug, a good estimate of the correct torque is one-quarter to one-half turn past finger tight. Have the spark plug tightened to the specified torque as soon as possible.

Tightening torque:

Spark plug:

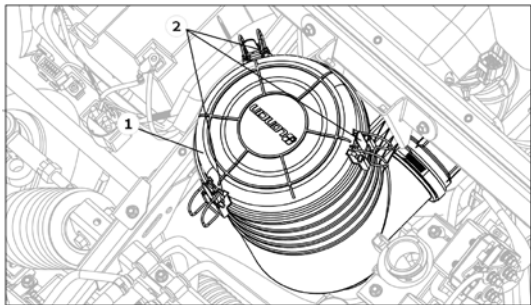
13 Nm (1.3 m·kgf, 9.4 ft·lbf)

3. Install the spark plug cap.
4. Reinstall the console.

## Cleaning the air filter element

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

1. Open the panel front
2. Remove the air filter case cover by unhooking the holders.



1. Air filter case cover

2. Air filter case cover holder (x3)

3. Remove the air filter element.
4. Remove the sponge material from the air filter frame.
5. Wash the sponge material gently but thoroughly in parts cleaning solvent. **WARNING! Using gasoline or other flammable solvents to clean the air filter element can cause a fire or explosion, which could lead to serious injury.**
6. Squeeze the excess solvent out of the sponge material. **NOTICE: Do not twist the sponge material when squeezing it.**
7. Wash the sponge material in warm soapy water to remove remaining solvent, then rinse thoroughly with plain warm water.

8. Squeeze excess water out of the sponge material. **NOTICE: Do not twist the sponge material when squeezing it.**



9. Allow the sponge material to dry thoroughly. Inspect the sponge material and replace it if damaged.
10. Pull the sponge material over its frame.
11. Reinstall the air filter element.
12. Install the air filter case cover by hooking the holders onto the cover.
13. Close the front panel

The air filter element should be cleaned every 20–40 hours. It should be cleaned and lubricated more often if the vehicle 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 joint to the throttle body and manifold fittings for an air-tight seal. Tighten all fittings securely to avoid the possibility of unfiltered air entering the engine.

#### NOTICE

**Never operate the engine with the air filter element removed. This will allow unfiltered air to enter, causing rapid engine wear and possible engine damage. Additionally, operation without the air filter element will affect the fuel injection system with subsequent poor performance and possible engine overheating.**

### **Check the water hose installed in the air filter connecting hose**

There is a drain plug at the bottom of the water hose, and it should be opened to draw off the water every three months.

### **Check the fuel and vapor separator oil hose**

You should draw off the refuse oil in the fuel and vapor separator oil hose every three months.

### **V-belt cooling duct check hose**

The V-belt case drain plug is located under the the driver seat.

After riding in water deep enough to allow water to enter the V-belt case, remove the drain plug to drain any water from the case.

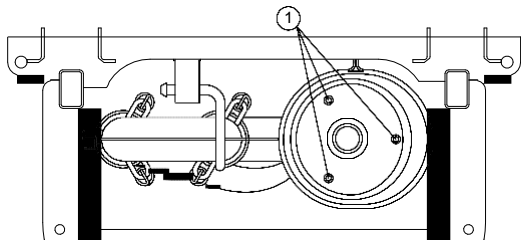
If water drains from the V-belt case after removing the drain plug, have a BMS dealer inspect the vehicle, as the water may affect other engine parts.

## Cleaning the spark arrester



Hot exhaust system may cause burns. To avoid burns or fires, make sure that the engine is stopped and the exhaust system is cool before cleaning the spark arrester. Do not start the engine while cleaning the exhaust system.

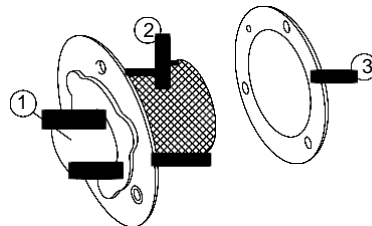
1. Remove the tailpipe bolts.



1. Tailpipe Bolt (x3)

2. Remove the tailpipe by pulling it out of the muffler, and then remove the gasket.

3. Tap the tailpipe lightly, and then use a wire brush to remove any carbon deposits from the spark arrester portion of the tailpipe and inside of the tailpipe housing.



1. Tailpipe 2. Spark arrester 3. Gasket

4. Install the gasket, and then insert the tailpipe into the muffler and align the bolt holes.
5. Install the bolts and tighten them to the specified torque.

Tightening torque:

Tailpipe bolt:

10 Nm (1.0 m·kgf, 7.2 ft·lbf)

## Valve clearance

The correct valve clearance changes with use, resulting in improper fuel/air supply or engine noise. To prevent this, the valve clearance must be adjusted regularly. This adjustment however, should be left to a professional BMS service technician.

## Brakes

Replacement of brake components requires professional knowledge. Brake service should be performed by a BMS dealer.



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**Operating with improperly serviced or adjusted brakes could lead to a loss in braking ability and an accident.**

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## Checking the front and rear brake pads

Each brake pad is provided with wear indicator grooves, which allow you to check the brake pad wear without having to disassemble the brake. To check the brake pad wear, check the wear indicator grooves. If a brake pad has worn to the point that the wear indicator grooves have almost disappeared, have a BMS dealer replace the brake pads as a set. The wheels need to be removed to check the brake pads. (See Chapter 8 for wheel removal and installation procedures.)

### Checking the parking brake pads

Each brake pad is provided with two wear indicator grooves, which allow you to check the brake pad wear without having to disassemble the brake. To check the brake pad wear, check the wear indicator grooves. If a brake pad has worn to a wear indicator groove, have a BMS dealer replace the brake pads as a set.

### Checking the brake fluid level

The brake fluid reservoir is located under the hood.

Before riding, check that the brake fluid is above the minimum level mark. Check the brake fluid level with the top of the reservoir level. Replenish the brake fluid if necessary.



---

**Improper maintenance can result in loss of braking ability. Observe these precautions:**

- **Insufficient brake fluid may allow air to enter the brake system, reducing braking performance.**
- **Clean the filler cap before removing. Use only DOT 4 brake fluid from a sealed container.**
- **Use only the specified brake fluid; otherwise, the rubber seals may deteriorate, causing leakage.**

- **Refill with the same type of brake fluid. Adding a brake fluid other than DOT 4 may result in a harmful chemical reaction.**
  - **Be careful that water does not enter the brake fluid reservoir when refilling. Water will significantly lower the boiling point of the fluid and may result in vapor lock.**
- 

#### **NOTICE**

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**Brake fluid may damage painted surfaces or plastic parts. Always clean up spilled fluid immediately.**

---

As the brake pads wear, it is normal for the brake fluid level to gradually go down. A low brake fluid level may indicate worn brake pads and/or brake system leakage; therefore, be sure to check the brake pads for wear and the brake system for leakage. If the brake fluid level goes down suddenly, have a BMS dealer check the cause before further riding.

#### **Brake fluid replacement**

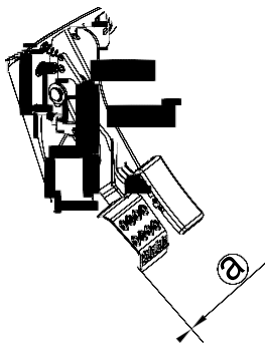
Complete fluid replacement should be done only by trained BMS service personnel. Have a BMS dealer replace the following components during periodic maintenance or when they are damaged or leaking.

- Replace the oil seals every two years.
- Replace the brake hoses every four years.



## Checking the brake pedal

Have a BMS dealer check the brakes at the intervals specified in the periodic maintenance and lubrication chart. There should be no free play in the brake pedal. The brakes should operate smoothly and there should be no brake drag. If the brakes feel soft or spongy, this could indicate air in the brake system. Have a BMS dealer check the brake system if necessary.



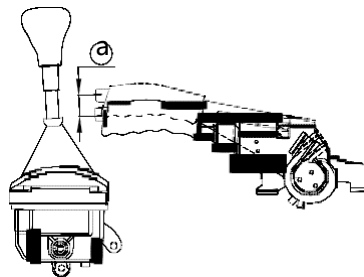
a. No brake pedal free play

## Parking brake lever free play adjustment

Periodically check the parking brake lever free play and adjust it if necessary.

1. Shift the drive select lever into low gear "L".
2. Remove the seats.
3. Remove the console.
4. Check the parking brake lever free play.

The maximum free play is equal to one click of the parking brake lever. If necessary, adjust the free play as follows.



a. Parking brake lever free play

5. Release the parking brake lever.
6. Turn the adjusting nut in direction to increase the free play or in direction b to decrease the free play.
7. Tighten the locknut
8. Reinstall the console.
9. Reinstall the seats.

### Cable inspection and lubrication



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**Damaged cables could restrict operation, which may cause an accident or injury. Inspect control cables frequently and replace damaged cables. Corrosion can result when the outer covering of control cables becomes damaged. Cables can also become frayed or kinked.**

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Lubricate the cable ends. If the cables do not operate smoothly, ask a BMS dealer to replace them.

### **Brake pedal and accelerator pedal lubrication**

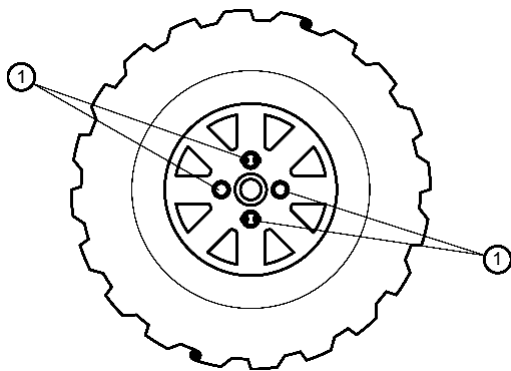
Lubricate the pivoting parts.

### **Steering shaft lubrication**

Lubricate the pivot points.

## Wheel removal

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



1. Wheel nut (x4)

## Tire replacement

Always use the same size and type of tires recommended in this owner's manual. The tires that came with your vehicle were designed to match the performance capabilities and to provide the best combination of handling, braking, and comfort. It is best to replace all four tires at the same time. If that is not possible, you must replace the tires in pairs (front or rear) with tires of the same size and type as the originals. Never replace just one tire.



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**Installing improper tires on your vehicle can affect handling and stability. This can cause a loss of control.**

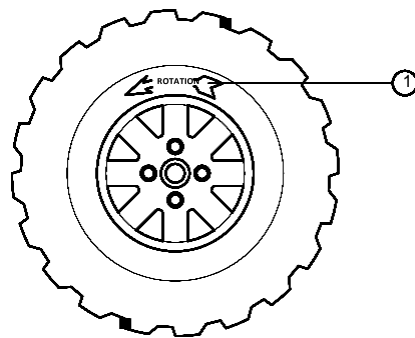
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The tires listed below have been approved by BMS Motor Manufacturing Corporation of America for this model.

	Manufacturer	Size	Type
Front	CST	25×8-12	Tubeless
Rear	CST	25×10-12	Tubeless

## Wheel installation

1. Install the wheel and the nuts.
  - The arrow mark on the tire must point toward the rotating direction of the wheel.



1. Arrow mark

- Tapered nuts are used for both the front and rear wheels. Install the nuts with their tapered side towards the

wheel.

2. Lower the vehicle so that the wheel is on the ground.
3. Tighten the wheel nuts in a crisscross pattern to the specified torque.



---

**Do not reverse the rims on the vehicle to widen the track width. Installing wheels improperly increases the risk of wheel failure and accidents.**

---

Wheel nut torque:

Front: 55 Nm (5.5 m·kgf, 40 ft·lbf)

Rear: 55 Nm (5.5 m·kgf, 40 ft·lbf)

## **Battery**

The battery is located under the hood. This model is equipped with a VRLA (Valve Regulated Lead Acid) battery. There is no need to check the electrolyte or to add distilled water. However, the battery lead connections need to be checked and, if necessary, tightened.



**Avoid battery contact with skin, eyes, or clothing. Shield eyes when working near batteries. Keep out of reach of children. You could be poisoned or severely burned by the sulfuric acid in battery electrolyte. In case of accidental contact with battery electrolyte:**

**EXTERNAL: Flush with water.**

**INTERNAL: Drink large quantities 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.**

---

#### **NOTICE**

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**Do not try to remove the sealing caps of the battery cells. You may damage the battery.**

---

#### **To remove the battery**

1. Turn the key to “OFF”.
2. Open the hood.
3. Unhook the battery band.
4. Disconnect the negative battery lead first, then the positive battery lead by removing their bolt. **NOTICE: When removing the battery, the main switch must be off, and the negative lead must be disconnected before the positive lead.**
5. Pull the battery out of its compartment.

#### **To charge the battery**

Have a BMS dealer charge the battery as soon as possible if it seems to have discharged. Keep in mind that the battery tends to discharge more quickly if the vehicle is equipped with optional electrical accessories.

## NOTICE

**To charge a VRLA (Valve Regulated Lead Acid) battery, a special (constant-voltage) battery charger is required. Using a conventional battery charger will damage the battery.**

---

### To store the battery

- If the vehicle will not be used for more than one month, remove the battery, fully charge it, and then place it in a cool, dry place.
- If the battery will be stored for more than two months, check it at least once a month and fully charge it if necessary.

## NOTICE

**Always keep the battery charged. Storing a discharged battery can cause permanent battery damage.**

---

### To install the battery

#### TIP

Be sure the battery is fully charged.

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1. Place the battery in its compartment.
2. Connect the positive battery lead first, then the negative battery lead by installing their bolt. **NOTICE: When installing the battery, the main switch must be off, and the positive lead must be connected before the negative lead.**
3. Hook the battery band.
4. Close the hood.

## Jump-starting

Jump-starting the vehicle should be avoided. The battery should be removed and charged instead.



---

**To avoid battery explosion and/or serious damage to the electrical system:**

- **Do not connect the negative lead of the jumper cable to the negative terminal of the battery.**
  - **Do not touch the positive lead of the jumper cable to the negative lead.**
  - **Do not reverse the polarity of the jumper cables when connecting to the batteries.**
- 

However, if the vehicle must be jump-started, proceed as follows.

1. Turn the key to “OFF”.
2. Open the hood.
3. Remove the console.
4. Using a charged 12-volt battery, connect the positive lead of the jumper cable to the positive terminal of the battery in the vehicle and the other end of the positive lead to the positive terminal of the charged battery.
5. Connect the negative lead of the jumper cable to the negative terminal of the charged battery and the other end of the negative lead to an unpainted metal surface of the crankcase to be started.
6. Start the engine.



7. After the engine starts, disconnect the negative lead of the jumper cable from the crankcase and charged battery, and then disconnect the positive lead of the jumper cable from the charged battery and the battery in the vehicle.
8. Reinstall the console.
9. Close the hood.

### **Fuse replacement**

The main fuse, the fuel injection system fuse, and the fuse box are located under the hood. If a fuse is blown, replace it as follows.

1. Turn the key to “OFF” and turn off the electrical circuit in question.

#### **NOTICE**

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**To prevent accidental short-circuiting, turn off the main switch when checking or replacing a fuse.**

---

2. Open the hood.
3. Remove the blown fuse, and then install a new fuse of the specified amperage.  
**WARNING! Always use a fuse of the specified amperage. Never use any material in place of the proper fuse. Using an improper fuse can cause damage to the electrical system and may lead to a fire.**

4. Turn the key to “ON” and turn on the electrical circuit in question to check if the device operates. If the fuse blows again immediately, have a BMS dealer check the electrical system.
5. Close the hood.

### **Replacing a headlight bulb**

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

1. Open the hood.
2. Remove the cover at the rear of the headlight by pulling it off.
3. Remove the headlight bulb holder by pushing it in and turning it counterclockwise.
4. Wait for the headlight bulb to cool before touching or removing it. Remove the bulb by pulling it out.

5. Insert a new headlight bulb into the bulb holder. **NOTICE: Do not touch the glass part of the headlight bulb to keep it free from oil, otherwise 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.**
6. Reinstall the bulb holder by pushing it in and turning it clockwise.
7. Reinstall the cover at the rear of the headlight.
8. Close the hood.

### **Tail/brake light bulb replacement**

If a tail/brake light bulb burns out, replace it as follows:

1. Remove the quick fastener screws, nuts and bolts from panel A (if replacing the left tail/brake light bulb) or panel B (if replacing the right tail/brake light bulb).
2. Lift the cargo bed up.
3. Remove the panel (panel A or B).
4. Remove the tail/brake light bulb holder (together with the bulb) by turning it counterclockwise.
5. Push the burnt-out bulb in and turn it counterclockwise to remove it from the bulb holder.
6. Push a new bulb in and turn it clockwise to install in the bulb holder.
7. Reinstall the bulb holder (together with the bulb) by turning it clockwise.
8. Install the panel.

9. Lower the cargo bed.
10. Reinstall the quick fastener screws, bolts and nuts and then tighten the nuts to the specified torque.

### **Troubleshooting**

Although BMS vehicles receive an inspection before shipment from the factory, trouble may occur during operation. Any problem in the fuel, compression, or ignition systems can cause poor starting and loss of power. The troubleshooting chart describes a quick, easy procedure for making checks. If your vehicle requires any repair, take it to a BMS dealer.

The skilled technicians at a BMS dealership have the tools, experience, and know-how to properly service your vehicle. Use only genuine BMS parts on your vehicle. Imitation parts may look like BMS parts, but they are often inferior. Consequently, they have a shorter service life and can lead to expensive repair bills.



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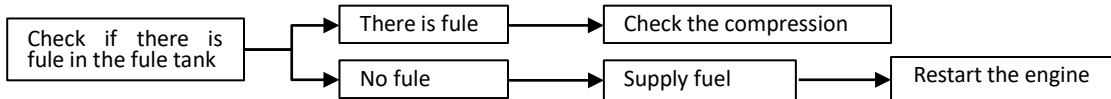
**When checking the fuel system, do not smoke and make sure there are no open flames or sparks in the area, including pilot lights from water heaters or furnaces. Gasoline or gasoline vapors can ignite or explode, causing severe injury or property damage.**

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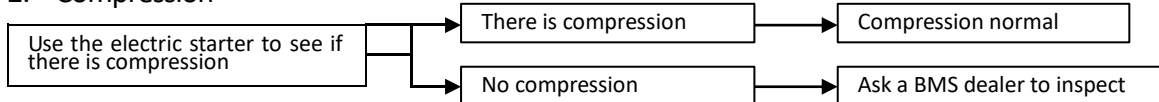
## Troubleshooting charts

### Starting problems or poor engine performance

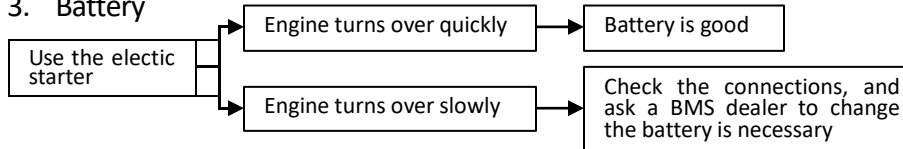
#### 1. Fuel



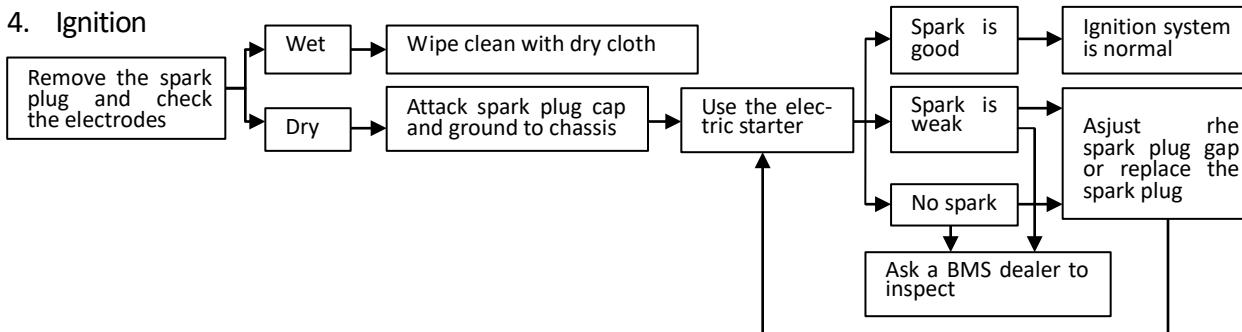
#### 2. Compression



#### 3. Battery



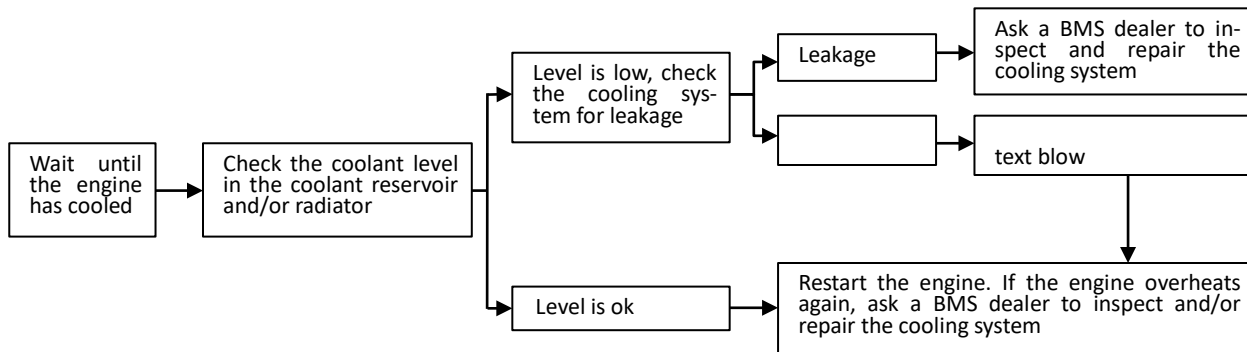
#### 4. Ignition



## Engine overheating

Wait for the engine to cool before removing the radiator cap. **WARNING! If the engine is not cool when removing the radiator cap, hot fluid and steam could blow out under pressure and burn you.**

Place a thick rag over the cap and remove the cap slowly to allow any remaining pressure to escape.



If it is difficult to get the recommended coolant, tap water can be used temporarily, provided that it is changed to the recommended coolant as soon as possible.

# CLEANING AND STORAGE

## A. Cleaning

Frequent, thorough cleaning of your vehicle will not only enhance its appearance but will improve its general performance and extend the useful life of many components.

1. Before cleaning the vehicle:
  - a. Block off the end of the exhaust pipe to prevent water entry. A plastic bag and strong rubber band may be used.
  - b. Make sure the spark plug and all filler caps are properly installed.
2. If the engine case is excessively greasy, apply degreaser with a paint brush. Do not apply degreaser to the wheel axles.
3. Rinse the dirt and degreaser off with a garden hose. Use only enough pressure to do the job. **WARNING! Test the brakes after washing. Apply the brakes several**

times at slow speeds brakes may have reduced stopping ability, increasing the chance of an accident. **NOTICE:** Excessive water pressure may cause water seepage and deterioration of wheel bearings, brakes, transmission seals and electrical devices. Many expensive repair bills have resulted from improper high-pressure detergent applications, such as those available in coin-operated car washers.

4. Once the majority of the dirt has been hosed off, wash all surfaces with warm water and mild, detergent-type soap. An old toothbrush or bottle brush is handy for hard-to-get-at places.
5. Rinse the vehicle off immediately with clean water and dry all surfaces with a clean chamois towel or soft, absorbent cloth.



6. Clean the seats with a vinyl upholstery cleaner to keep the covers pliable and glossy.
7. Automotive-type wax may be applied to all painted and chrome-plated surfaces. Avoid combination cleaner-waxes. Many contain abrasives which may scratch the paint or protective finish. When finished, start the engine and let it idle for several minutes.

## **B. Storage**

Long term storage (60 days or more) of your vehicle will require some preventive procedures to guard against deterioration. Make any necessary repairs before storing the vehicle. After thoroughly cleaning the vehicle, prepare for storage as follows:

1. Fill the fuel tank with fresh fuel and add the specified amount of BMS Fuel Stabilizer and Conditioner or equivalent product. Operate the vehicle for at least 5 minutes to distribute treated fuel through the fuel system.

Specified amount:

1 oz of stabilizer to each gallon of fuel  
(or 7.5 ml of stabilizer to each liter of fuel)

2. Remove the spark plug, pour about one tablespoon of SAE 10W-40 or 20W-50 motor oil in the spark plug hole and reinstall the spark plug. Ground the spark plug wire and turn the engine over several times to coat the cylinder wall with oil.
3. Lubricate all control cables.
4. Block up the frame to raise all wheels off the ground.
5. Tie a plastic bag over the exhaust pipe outlet to prevent moisture from entering.
6. If storing in a humid or salt-air atmosphere, coat all exposed metal surfaces with a light film of oil. Do not apply oil to any rubber parts or the seat covers.
7. Remove the battery and charge it. Store it in a dry place and recharge it once a month. Do not store the battery in an excessively warm or cold place [less than 0 °C (30 °F) or more than 30 °C (90 °F)].

Use of fuel stabilizer and conditioner eliminates the need to drain the fuel system. Consult a BMS dealer if the fuel system needs to be drained.

## SPECIFICATIONS

type	RANCH DONKEY 700	RANCH PONY 700
<b>Dimensions(mm)</b>		
Overall Length	2960	2938
Overall Width	1380	1555
Overall Height	1880	1950
Seat Height	431	431
Wheelbase	1910	1910
Ground Clearance	250	267
Minimum Turning Radius	3805	4100
<b>Weight(kg)</b>		
With oil and fuel	575	575
<b>Engine</b>		

Engine Type	Liquid cooled 4-stroke, SOHC	Liquid cooled 4-stroke, SOHC
Cylinder Arrangement	Single Cylinder	Single Cylinder
Displacement	686cc	686cc
Bore × stroke	102mm×84mm	102mm×84mm
Compression Ratio	9.7: 1	9.7: 1
Starting System	Electric Starter	Electric Starter
Lubrication System	Wet Sump	Wet Sump
<b>Engine Oil</b>		
Engine oil quantity	2.3L	2.3L
<b>Final Gear Oil</b>		
Type	SAE 80 API GL-4	SAE 80 API GL-4
Quantity	0.23L	0.23L
<b>Differential Gear Oil</b>		

Type	SAE 80 API GL-4	SAE 80 API GL-4
Quantity	0.28L	0.28L
<b>Cooling System</b>		
Coolant reservoir capacity (up to the maximum level mark)	0.25L	0.25L
Radiator capacity (including all routes)	4L	4L
<b>Air Filter</b>		
Airfilter element	Wet element	Wet element
<b>Fuel</b>		
Recommended fuel	Regular unleaded gasoline only	Regular unleaded gasoline only
Fuel tank capacity	28 L (7.40 US gal, 6.16 Imp. gal)	28 L (7.40 US gal, 6.16 Imp. gal)
<b>Clutch</b>		
Clutch type	Wet, centrifugal automatic	Wet, centrifugal automatic

<b>Transmission</b>		
Primary reduction system	V-belt	V-belt
Secondary reduction system	Shaft drive	Shaft drive
Secondary reduction ratio	3.667	3.667
Transmission type	automatic	automatic
Operation	Right hand operation	Right hand operation
Reverse gear	11.16 ~ 37.26	11.16 ~ 37.26
Final reduction ratio (Low speed)	13.95 ~ 46.57	13.95 ~ 46.57
Final reduction ratio (High speed)	8.39 ~ 28.01	8.39 ~ 28.01
<b>Chassis</b>		
Frame type	Steel tube frame	Steel tube frame
<b>Front Tire</b>		
Type	Tubeless	Tubeless

Size	25×8-12	25×8-12
<b>Rear Tire</b>		
Type	Tubeless	Tubeless
Size	25×10-12	25×10-12
<b>Loading</b>		
Maximum loading limit	160kg (353lbs)	170kg (375lbs)
<b>Tire Air Pressure (measured on cold tires)</b>		
Recommended		
Front	82.0kPa (12psi)	82.0kPa (12psi)
Rear	124.0kPa (18psi)	124.0kPa (18psi)
<b>Front Wheel</b>		
Rim size	12×6	12×6
Wheel type	cast wheel	cast wheel

<b>Rear Wheel</b>		
Rim size	12×8/12×7.5	12×8/12×7.5
Wheel type	cast wheel	cast wheel
<b>Front Brake</b>		
Type	Disc brake	Disc brake
Operation	Unified brake	Unified brake
Recommend fluid	DOT 4	DOT 4
<b>Rear Brake</b>		
Type	Disc brake	Disc brake
Operation	Unified brake	Unified brake
Recommend fluid	DOT 4	DOT 4
<b>Front Suspension</b>		
Type	Double wishbone	Double wishbone



Spring/shock absorber type	Coil spring/gas-oil damper	Coil spring/gas-oil damper
Wheel travel(mm)	110	175
<b>Rear Suspension</b>		
Type	Double wishbone	Double wishbone
Spring/shock absorber type	Coil spring/gas-oil damper	Coil spring/gas-oil damper
Wheel travel(mm)	138	221
<b>Electrical System</b>		
Ignition system	TCI	TCI
Charging system	AC magneto	AC magneto
<b>Battery</b>		
Voltage, capacity	12V 30Ah	12V 30Ah
<b>Headlight</b>		
Bulb type	Krypton bulb	Krypton bulb

<b>Bulb voltage, wattage, quantity</b>		
Headlight	12V 35/35W×2	12V 35/35W×2
Tail/brake light	12V 21/5W×2	12V 21/5W×2
Neutral indicator light	LED	LED
Reverse indicator light	LED	LED
Coolant temperature warning light	LED	LED
Engine trouble warning light	LED	LED
On-Command four-wheel-drive/differential gear lock indicator	LED	LED
High-range indicator light	LED	LED
Low-range indicator light	LED	LED
Differential gear lock indicator light	LED	LED

Seat belt indicator light	/	LED
<b>Fuses</b>		
Main fuse	40A	40A
Four-wheel-drive motor fuse	5A	5A
Auxiliary DC jack fuse	10A	10A
Signaling system fuse	15A	15A
ECU fuse ECU	15A	15A
Radiator fan fuse	10A	15A

# CONSUMER INFORMATION

## Identification number records

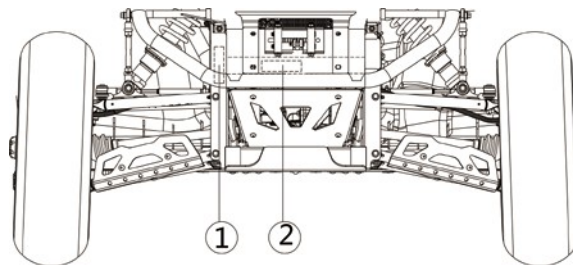
Record the model label information and the vehicle identification number in the spaces provided for assistance when ordering spare parts from a BMS dealer or for reference, in case the vehicle is stolen.

1. MODEL LABEL INFORMATION:

2. VEHICLE IDENTIFICATION NUMBER:

## Model label and vehicle identification number

The model label is riveted to the frame, the vehicle identification number is stamped into the frame.



1. Model label
2. Vehicle Identification number

The vehicle identification number is used to identify your vehicle.

## MAINTENANCE RECORD

Copies of work orders and/or receipts for parts you purchase and install will be required to document maintenance done in accordance with the warranty. The chart below is printed only as a reminder to you that the maintenance work is required. It is not acceptable proof of maintenance work.

MAINTENANCE INTERVAL			DATE OF SERVICE	MILEAGE	SERVICING DEALER NAME AND DRESS	REMARKS
Month	km (mi)	Hours				
1	320 (200)	20				
3	1200 (750)	75				
6	2400 (1500)	150				
12	4800 (3000)	300				
18	7200 (4500)	450				
24	9600 (6000)	600				
30	12000 (7500)	750				
36	14400 (9000)	900				
42	16800 (10500)	1050				
48	19200 (12000)	1200				
54	21600 (13500)	1350				
60	24000 (15000)	1500				

# EMISSION RELATED COMPONENTS WARRANTY

Your new BMS vehicle complies with the U.S. EPA, and State of California emission regulations (models certified for sale in California only). BMS Motorsports Inc. provides the emission warranty coverage for engines in the United States and its territories. In the remainder of this Emission Related components Warranty, BMS Motorsports Inc. will be referred to as BMS

## **YOUR WARRANTY RIGHTS AND OBLIGATIONS**

U.S. EPA and BMS are pleased to explain the emission related components warranty on your 2017ATV-B. New motor vehicles must be designed, built and equipped to meet State's stringent anti-smog standards. BMS must warrant the emission related components on your motorcycle for the periods of time listed below provided there has been no abuse, neglect or improper maintenance of your motorcycle.

Your emission related components may include parts such as the carburetor or fuel injection system, the ignition system, catalytic converter and engine computer, if it is equipped. Also included may be hoses, belts, connectors and other emission-related assemblies. Where a warrantable condition exists, BMS will repair your motorcycle at no cost to you including diagnosis, parts and labor.

## **MANUFACTURER'S WARRANTY COVERAGE**

The 2017 and later model year ATV-B are warranted for 10,000 km or for 5 years, whichever comes first. If any emission-related part on your vehicle is defective, the part will be repaired or replaced by BMS. This is your emission related components DEFECTS WARRANTY.

## **OWNER'S WARRANTY RESPONSIBILITIES**

As the vehicle owner, you are responsible for the performance of the required maintenance listed in your owner's manual. BMS recommends that you retain all receipts covering maintenance on your vehicle, but BMS 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 BMS' 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 BMS may deny your warranty 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 the following office.

BMS Motorsports Inc.  
1151 Spruce St.  
Riverside, CA 92507  
Tel: 951-274-9267

California Air Resources Board P.O.  
Box 8001, 9528 Telstar Avenue, El  
Monte, CA 91731-8001  
(for California registered highway vehicles only)

## **WARRANTY COVERAGE**

BMS warrants that each new 2017 and later BMS motorcycles:

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 the California Air Resources Board; and

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

The emission related components warranty period for this vehicle begins on the date the vehicle is delivered to the first purchaser other than an authorized dealer, or the date it is first used as a demonstrator, lease, or company vehicle, whichever comes first and continues for the period of time listed above. This warranty is transferable to each subsequent purchaser for the duration of the warranty period.

Warranty repairs will be made without charge for diagnosis, parts, or labor. All defective parts replaced under this warranty become the property of BMS. A list of warranted parts is included in this warranty statement. Normal maintenance items, such as spark plugs and filters, that are on the warranted parts list are warranted up to their required replacement interval only.

Only BMS approved replacement parts may be used in the performance of any warranty repairs and must be provided without charge to the owner. The use of replacement parts not equivalent to the original parts may impair the effectiveness of your engine emission related components. If such a re-



placement part is used in the repair or maintenance of your engine, and an authorized BMS dealer determines it is defective or causes a failure of a warranted part, your claim for repair of your engine may be denied. If the part in question is not related to the reason your engine requires repair, your claim will not be denied.

### **TO OBTAIN WARRANTY SERVICE**

You must take your BMS Vehicle, along with your sales receipt or other proof of original purchase date, at your expense, to any BMS dealer who is authorized by BMS to sell and service that BMS product during his normal business hours. Claims for repair or adjustment found to be caused solely by defects in material or workmanship will not be denied because the vehicle was not properly maintained and used.

Repair or replacement of any warranted part is performed at no charge at a warranty station, except in an emergency situation. An emergency occurs when a warranted part or a warranty station is not reasonably available to the owner. In an emergency, repairs may be performed at any available service establishment, or by any individual, using any replacement part. The manufacturer will reimburse the owner for the expenses, including diagnostic charges, not to exceed the manufacturer's suggested retail price for all warranted parts replaced and labor charges based on the manufacturer's recommended time allowance for the warranty repair and the geographically appropriate hourly labor rate. The owner may reasonably be required to keep receipts and failed parts in order to receive compensation. A part not available within 30 days, or a repair not complete within 30 days also constitutes an emergency.

If you are unable to obtain warranty service, or are dissatisfied with the warranty service you received, contact the owner of the dealership involved. Normally this should resolve your problem. However, if you require further assistance, write or call the BMS Motorsports Inc. Customer Service Department.

### **EXCLUSIONS AND LIMITATIONS**

This Emission Related components 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,

(4) use of replacement parts or accessories not conforming to BMS' specifications 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.

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.

### **LIMITED LIABILITY**

A. The liability of BMS under this emission related components warranty is limited solely to the remedying of defects in material or workmanship by an authorized BMS dealer at its place of busi-

ness 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 BMS dealer. BMS 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.

B. No express emission related components warranty is given by us except as specifically set forth herein. Any emission related components warranty implied by law, including any warranty of merchantability or fitness for a particular purpose, is limited to the express emission related components warranty terms stated in this warranty. The foregoing statements of warranty are exclusive and in line 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 BMS Limited Emission Related components Warranty.

<b>SYSTEMS COVERED BY THIS WARRANTY:</b>	<b>PARTS DESCRIPTION:</b>
Engine Components-	Intake and exhaust valves, Drive belts, Manifold and cylinder head bolts, Engine oil and filter, Engine coolant, Cooling system hoses and connections
Fuel Metering	Fuel injector, ECM, Heated O2 sensor, Throttle position sensor, In-

	take air temp sensor
Evaporative	Fuel tank, Fuel cap, Fuel hoses
Exhaust	Catalytic Converter
Air Induction	Air filter housing, Air filter element*,Air injection valve
Ignition	Ignition coil assembly, Ignition control module, Spark plug cap, Spark plug*
Crankcase Emission Control	Crankcase breather tube
Miscellaneous Parts	Tubing, fittings, seals, gaskets, and clamps associated with these listed systems.

# WARNING

To reduce risk of serious injury or death, read this Operator's Guide and safety labels

## Be Prepared

- Fasten seat belts
- Wear an approved helmet and protective gear.
- Each rider must be able to sit with back against seat, feet flat on floor, and hands on steering wheel or handhold. Stay completely inside the vehicle.

## Drive Responsibly

Avoid loss of control and rollovers;

- Avoid abrupt maneuvers, sideways sliding, skidding, or fishtailing, and never do donuts.
- Slow down before entering a turn.
- Avoid hard acceleration when turning, even from a stop.
- Plan for hills, rough terrain, ruts, and other changes in traction and terrain. Avoid paved surfaces.
- Avoid side hilling (riding across slopes).

## Be Qualified and Responsible

Do not allow careless or reckless driving.

Driver must be at least 16 years old with a valid driver's license.

Do not allow operation on public roads (unless designated for off-highway vehicle access) collisions with cars and trucks can occur.

Do not exceed vehicle seating capacity