



**YAMAHA**

**128motorcycle**

**OWNER'S MANUAL**

***Vmax***

**VMX12M  
VMX12MC**

**LIT-11626-13-10**

Dear Yamaha ATV Owner: Please Review this IMPORTANT SAFETY CARD before operating your ATV (if card is not attached, call 1-800-344-6418).

Dear New Yamaha ATV Owner:

CONGRATULATIONS ON THE PURCHASE OF YOUR NEW YAMAHA ATV. You have purchased a quality Yamaha product that, with proper use and care, will provide hours of riding pleasure. **BEFORE YOU OPERATE YOUR NEW ATV, Yamaha recommends these important points:**

- READ YOUR OWNER'S MANUAL
- A CHILD UNDER 12 YEARS OLD SHOULD NOT OPERATE AN ATV WITH ENGINE SIZE 70CC OR GREATER
- A CHILD UNDER 16 YEARS OLD SHOULD NOT OPERATE AN ATV WITH ENGINE SIZE GREATER THAN 90CC
- TAKE THE FREE HANDS-ON TRAINING COURSE OFFERED BY YAMAHA — ASK YOUR DEALER FOR DETAILS OR CALL 1-800-887-2887

If you have any questions about these points, **or if you purchased your ATV from an authorized Yamaha dealership and were not informed of the age recommendation for your ATV by the dealership**, please fill out the information below and mail this card to Yamaha **today**.

Name:

ATV Model:

Purchase Date:

Address:

Primary I.D. (Engine Number):

MO. DAY YR.

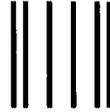
Telephone:

Dealer Name & Address:

( )

**READ CAREFULLY**

This is not a warranty card



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UNITED STATES

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**YAMAHA MOTOR CORPORATION U.S.A.**  
**P.O. BOX 6555**  
**CYPRESS, CALIFORNIA 90630-9989**

ATTN: SALES ADMINISTRATION



# INTRODUCTION

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EAU00002

Congratulations on your purchase of the Yamaha VMX12/VMX12C. This model is the result of Yamaha's vast experience in the production of fine sporting, touring, and pac-  
esetting racing machines. It represents the high degree of craftsmanship and reliability that have made Yamaha a leader in these fields.

This manual will give you an understanding of the operation, inspection, and basic maintenance of this motorcycle. If you have any questions about the operation or maintenance of your motorcycle, please consult a Yamaha dealer.

The design and manufacture of this Yamaha motorcycle fully comply with the emissions standards for clean air applicable at the date of manufacture. Yamaha has met these standards without reducing the motorcycle's performance or economy of operation. To maintain these high standards, it is important that you and your dealer pay close attention to the recommended maintenance schedules and operating instructions contained within this manual.

# IMPORTANT MANUAL INFORMATION

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EAU00003

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



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



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

## **CAUTION:**

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

## **NOTE:**

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

## **NOTE:**

- This manual should be considered a permanent part of this motorcycle and should remain with it even if the motorcycle is subsequently sold.
  - Yamaha continually seeks advancements in product design and quality. Therefore, while this manual contains the most current product information available at the time of printing, there may be minor discrepancies between your motorcycle and this manual. If there is any question concerning this manual, please consult your Yamaha dealer.
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# IMPORTANT MANUAL INFORMATION

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## **WARNING**

**PLEASE READ THIS MANUAL AND THE “YOU AND YOUR MOTORCYCLE: RIDING TIPS” BOOKLET CAREFULLY AND COMPLETELY BEFORE OPERATING THIS MOTORCYCLE. DO NOT ATTEMPT TO OPERATE THIS MOTORCYCLE UNTIL YOU HAVE ATTAINED A SATISFACTORY KNOWLEDGE OF ITS CONTROLS AND OPERATING FEATURES AND UNTIL YOU HAVE BEEN TRAINED IN SAFE AND PROPER RIDING TECHNIQUES. REGULAR INSPECTIONS AND CAREFUL MAINTENANCE, ALONG WITH GOOD RIDING SKILLS, WILL ENSURE THAT YOU SAFELY ENJOY THE CAPABILITIES AND THE RELIABILITY OF THIS MOTORCYCLE.**

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AFFIX DEALER

LABEL HERE

EAU01399

**VMX12M/VMX12MC**

**OWNER'S MANUAL**

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**1st Edition, April 1999**

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**P/N LIT-11626-13-10**

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# SAFETY INFORMATION

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TWO-WHEELED MOTORCYCLES ARE SINGLE TRACK VEHICLES. THEIR SAFE USE AND OPERATION ARE DEPENDENT UPON THE USE OF PROPER RIDING TECHNIQUES AS WELL AS THE EXPERTISE OF THE OPERATOR.

EVERY OPERATOR SHOULD KNOW THE FOLLOWING REQUIREMENTS BEFORE RIDING.

HE OR SHE SHOULD:

1. OBTAIN THOROUGH INSTRUCTIONS FROM A COMPETENT SOURCE ON ALL ASPECTS OF MOTORCYCLE OPERATION.
2. OBSERVE THE WARNINGS AND MAINTENANCE REQUIREMENTS IN THE OWNER'S MANUAL.
3. OBTAIN QUALIFIED TRAINING IN SAFE AND PROPER RIDING TECHNIQUES.
4. OBTAIN PROFESSIONAL TECHNICAL SERVICE AS INDICATED BY THE OWNER'S MANUAL AND/OR WHEN MADE NECESSARY BY MECHANICAL CONDITIONS.

## Safe riding

1. Always make pre-operation checks. Careful checks may help prevent an accident.
2. This motorcycle is designed to carry the operator and a passenger.
3. The failure of motorists to detect and recognize motorcycles in traffic is the predominating cause of automobile/motorcycle accidents. Many accidents have been caused by an automobile driver who did not see the motorcycle. Making yourself conspicuous appears to be very effective in reducing the chance of this type of accident.

Therefore:

- a. Wear a brightly colored jacket.
- b. Use extra caution when you approach and pass through intersections, since intersections are the most likely places for motorcycle accidents.
- c. Ride where other motorists can see you. Avoid riding in another motorist's "blind spot".



## SAFETY INFORMATION

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4. Many accidents involve inexperienced operators. In fact, many operators who have been involved in accidents do not even have a current motorcycle license.
  - a. Make sure you are qualified. Also, only lend your motorcycle to experienced operators.
  - b. Know your skills and limits. Staying within your limits may help you to avoid an accident.
  - c. We recommend that you practice riding your motorcycle where there is no traffic until you have become thoroughly familiar with your motorcycle and all of its controls.
5. Many motorcycle accidents have been caused by motorcycle operator errors. A typical error made by the operator is veering wide on a turn due to EXCESSIVE SPEED or undercornering (insufficient lean angle for the speed).
  - a. Always obey the speed limits and never travel faster than warranted by road and traffic conditions.
  - b. Always signal before turning or changing lanes. Make sure other motorists see you.
6. The operator's and passenger's posture are important for proper control.
  - a. The operator should keep both hands on the handlebars and both feet on the operator footrests during operation to maintain control of the motorcycle.
  - b. The passenger should always hold on to the operator, or the seat strap or grab bar if the motorcycle is so equipped, with both hands and keep both feet on the passenger footrests.
  - c. Never carry a passenger unless he or she can firmly place both feet on the passenger footrests.
7. Never ride under the influence of alcohol or drugs.
8. This motorcycle is designed for on-road use only. It is not suitable for off-road use.



## **SAFETY INFORMATION**

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### **Protective apparel**

The majority of fatalities from motorcycle accidents are the result of head injuries. The use of a safety helmet is the single most critical factor in the prevention or reduction of head injuries.

1. Always wear an approved helmet.
2. Wear a face shield or goggles. Wind on your unprotected eyes could contribute to an impairment of vision which could delay seeing a hazard.
3. The use of heavy boots, jacket, trousers, gloves, etc. is effective in preventing or reducing abrasions or lacerations.
4. Never wear loose fitting clothing. It could catch on the control levers, footrests, or wheels and cause injury or accident.
5. Never touch the engine or exhaust system during or after operation. They become very hot and can cause burns. Always wear protective clothing that covers your legs, ankles, and feet.
6. A passenger should also observe the above precautions.

### **Modification**

Modifications made to the motorcycle not approved by Yamaha, or the removal of original equipment, may render your motorcycle unsafe for use and may cause severe personal injury. Modifications may also make your motorcycle illegal to use.

### **Loading and accessories**

Adding accessories or cargo to your motorcycle can adversely affect stability and handling if the weight distribution of the machine is changed. To avoid the possibility of an accident, extreme caution should be used if adding cargo or accessories to your motorcycle. Use extra care if riding a motorcycle which has added cargo or accessories. Here are some general guidelines to follow if loading cargo or adding accessories to your motorcycle:



### Loading

The total weight of the operator, passenger, accessories and cargo must not exceed the maximum load limit of VMX12 476 lb (216 kg) / VMX12C 474 lb (215 kg).

When loading within these weight limits, keep the following in mind:

1. Cargo and accessory weight should be kept as low and close to the motorcycle as possible. Be sure to distribute the weight as evenly as possible on both sides of the machine to minimize imbalance or instability.
2. Shifting weights can create a sudden imbalance. Make sure that accessories and cargo are securely attached to the motorcycle before riding. Recheck accessory mounts and cargo restraints frequently.
3. Never attach any large or heavy items to the handlebars, front forks, or front fender. These items, including such cargo as sleeping bags, duffle bags, or tents, can create unstable handling or slow steering response.

### Accessories

Genuine Yamaha accessories have been specifically designed for use on this motorcycle. Since Yamaha cannot test all other accessories which may be available, you must personally be responsible for the proper selection, installation and use of non-Yamaha accessories. You should use extreme caution when selecting and installing any accessories.

Keep in mind these guidelines for mounting accessories in addition to those provided under "LOADING".

1. Never install accessories or carry cargo that would impair the performance of your motorcycle. Carefully inspect the accessory before using it to make sure it does not in any way reduce ground clearance or cornering clearance, limit suspension travel, steering travel or control operation, or obscure lights or reflectors.



## **SAFETY INFORMATION**

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- a. Accessories fitted to the handlebar or the front fork area can create instability due to improper weight distribution or aerodynamic changes. If accessories are added to the handlebar or front fork area, they must be as lightweight as possible and should be kept to a minimum.
  - b. Bulky or large accessories may seriously affect the stability of the motorcycle due to aerodynamic effects. Wind may attempt to lift the motorcycle, or the motorcycle may become unstable in cross winds. These accessories may also cause instability when being passed by or passing large vehicles.
  - c. Certain accessories can displace the operator from his or her normal riding position. This improper position limits the freedom of movement of the operator and may limit control ability. Therefore such accessories are not recommended.
2. Caution must be used if adding electrical accessories. If these accessories exceed the capacity of the motorcycle's electrical system, an electric failure could result, which could cause a dangerous loss of lights or engine power.

### **Gasoline and exhaust gas**

1. **GASOLINE IS HIGHLY FLAMMABLE:**
  - a. Always turn off the engine when refueling.
  - b. Take care not to spill any gasoline on the engine or exhaust system when refueling.
  - c. Never refuel while smoking or in the vicinity of an open flame.
2. Never start the engine or let it run for any length of time in a closed area. The exhaust fumes are poisonous and may cause loss of consciousness and death within a short time. Always operate your motorcycle in an area that has adequate ventilation.
3. Always turn off the engine before leaving the motorcycle unattended and remove the ignition key. When parking the motorcycle, note the following:



## SAFETY INFORMATION

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- a. The engine and exhaust system may be hot. Park the motorcycle in a place where pedestrians or children are not likely to touch these hot areas.
  - b. Do not park the motorcycle on a slope or soft ground; the motorcycle may fall over.
  - c. Do not park the motorcycle near a flammable source, e.g. a kerosene heater, or near an open flame. The motorcycle could catch fire.
4. When transporting the motorcycle in another vehicle, be sure it is kept upright. If it should lean over, gasoline may leak out of the carburetor or fuel tank.
  5. If you should swallow any gasoline, inhale a lot of gasoline vapor, or allow gasoline to get in your eyes, see your doctor immediately. If any gasoline spills on your skin or clothing, immediately wash it off with soap and water and change your clothes.



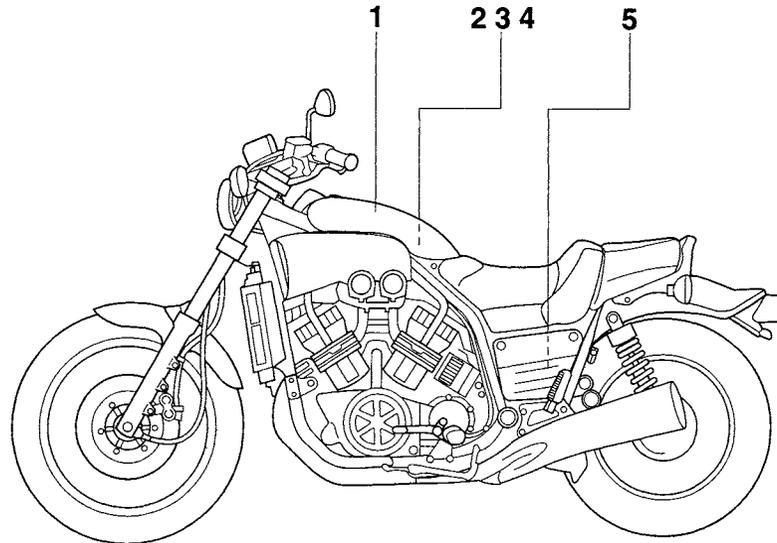
# SAFETY INFORMATION

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EAU02977

## Location of the important labels

Please read the following labels carefully before operating this motorcycle.





# SAFETY INFORMATION

1

**▲ WARNING**

- BEFORE YOU OPERATE THIS VEHICLE, READ THE OWNER'S MANUAL AND ALL LABELS.
- ALWAYS WEAR AN APPROVED MOTORCYCLE HELMET, eye protection, and protective clothing.

3MX-2118K-A0

2

**CAUTION**

- Read owner's manual before servicing battery.
- Electrolyte will damage metal parts or paint. If electrolyte spills, wash area with fresh water immediately.
- Be sure to connect breather hose after installing battery.

3JL-28177-A0

3

**TIRE INFORMATION**

Cold tire normal pressure should be set as follows.

- Up to 90 kg (198 lbs) load

**FRONT** : 225 kPa, {2.25 kgf/cm<sup>2</sup>}, 33 psi

**REAR** : 225 kPa, {2.25 kgf/cm<sup>2</sup>}, 33 psi

- 90 kg (198 lbs) ~ maximum load

**FRONT** : 225 kPa, {2.25 kgf/cm<sup>2</sup>}, 33 psi

**REAR** : 250 kPa, {2.50 kgf/cm<sup>2</sup>}, 36 psi

5BN-21668-00

4

**California only**

**EMISSION HOSE ROUTING**

TO ATMOSPHERE

CANISTER

FROM FUEL TANK

4YN-21686-00

5

**▲ WARNING**

HOLE

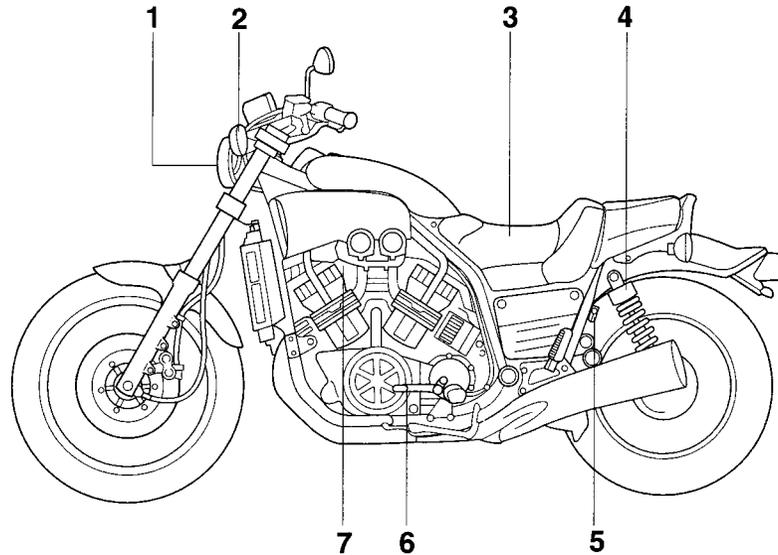
**PASS LEAD WIRES THROUGH HOLE, as shown. A short circuit could result from improper routing. This could cause the engine to stop running and lights to fail, which could result in an accident.**

3JP-2415H-A0

## DESCRIPTION

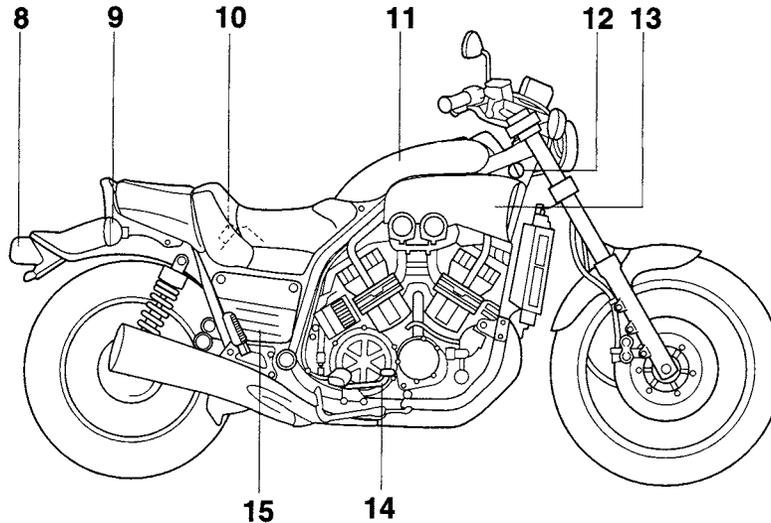
Left view .....	2-1
Right view.....	2-2
Controls/Instruments .....	2-3

## Left view



- |                                     |             |
|-------------------------------------|-------------|
| 1. Headlight                        | (page 6-37) |
| 2. Front turn signal/position light |             |
| 3. Rider seat                       | (page 3-12) |
| 4. Rear shock absorber              | (page 3-15) |
| 5. Helmet holder                    | (page 3-13) |
| 6. Shift pedal                      | (page 3-8)  |
| 7. Starter (choke)                  | (page 3-11) |

## Right view

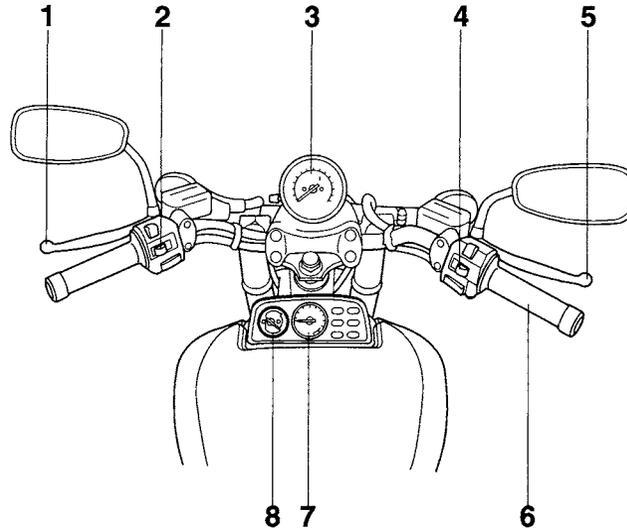


- |                            |             |
|----------------------------|-------------|
| 8. Tail/brake light        | (page 6-39) |
| 9. Rear turn signal light  |             |
| 10. Fuel tank cap          | (page 3-9)  |
| 11. Top cover              | (page 6-8)  |
| 12. Main switch            | (page 3-1)  |
| 13. Front right side cover |             |
| 14. Rear brake pedal       | (page 3-8)  |
| 15. Rear right side cover  |             |

# DESCRIPTION

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## Controls/Instruments



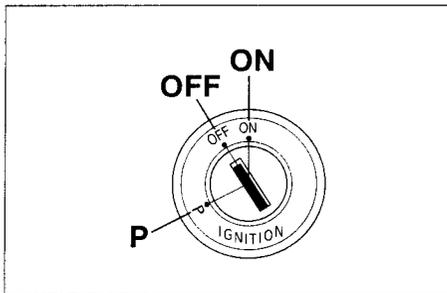
- |                              |             |
|------------------------------|-------------|
| 1. Clutch lever              | (page 3-7)  |
| 2. Left handlebar switches   | (page 3-6)  |
| 3. Speedometer               | (page 3-5)  |
| 4. Right handlebar switches  | (page 3-7)  |
| 5. Front brake lever         | (page 3-8)  |
| 6. Throttle grip             | (page 6-20) |
| 7. Tachometer                | (page 3-5)  |
| 8. Coolant temperature gauge | (page 3-5)  |

# INSTRUMENT AND CONTROL FUNCTIONS

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Front brake lever.....	3-8	Sidestand/clutch switch operation check.....	3-19
Rear brake pedal.....	3-8		
Fuel tank cap.....	3-9		

# INSTRUMENT AND CONTROL FUNCTIONS

EAU00027



EAU00028

## Main switch

The main switch controls the ignition and lighting systems. Its operation is described below.

EAU00032

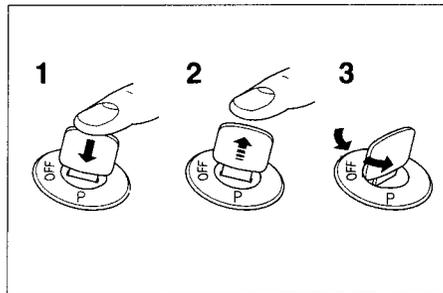
### ON

All electrical circuits are switched on, and the headlight, meter light, taillight, and front position lights come on. The engine can be started. The key cannot be removed in this position.

EAU00038

### OFF

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

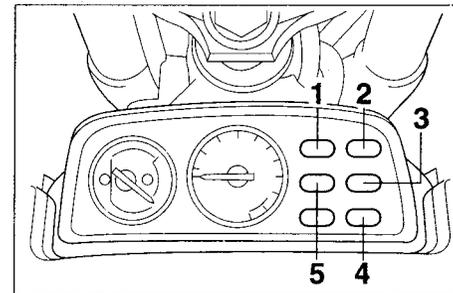


EAU00051

1. Push
2. Release
3. Turn

### P (Parking)

The meter light, taillight and front position light come on but all other circuits are off. With the key at "OFF", push it into the main switch, turn it counter-clockwise to "P", and remove it. To cancel the parking, turn the key clockwise.



EAU00056

1. Neutral indicator light "NEUTRAL"
2. Turn indicator light "TURN"
3. Fuel indicator light "FUEL"
4. High beam indicator light "HIGH BEAM"
5. Oil level indicator light "OIL LEVEL"

## Indicator lights

EAU00062

### Neutral indicator light "NEUTRAL"

This indicator comes on when the transmission is in neutral.

EAU00059

### Turn indicator light "TURN"

This indicator flashes when the turn switch is moved to the left or right.

# INSTRUMENT AND CONTROL FUNCTIONS

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EAU01155

## Fuel indicator light “FUEL”

When the fuel level drops below approximately 3 L (0.7 Imp gal, 0.8 US gal), this light will come on. When this light comes on, move the fuel switch to “RES”. Then fill the tank at the first opportunity! This light circuit can be checked by the procedure on page 3-4.

## NOTE: \_\_\_\_\_

Even if the oil is filled to the specified level, the indicator light may flicker when riding on a slope or during sudden acceleration or deceleration, but this is not abnormal.

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EAU00064

## High beam indicator light “HIGH BEAM”

This indicator comes on when the headlight high beam is used.

EAU00067

## Oil level indicator light “OIL LEVEL”

This indicator comes on when the oil level is low. This light circuit can be checked by the following procedure.

EC000000

## **CAUTION:** \_\_\_\_\_

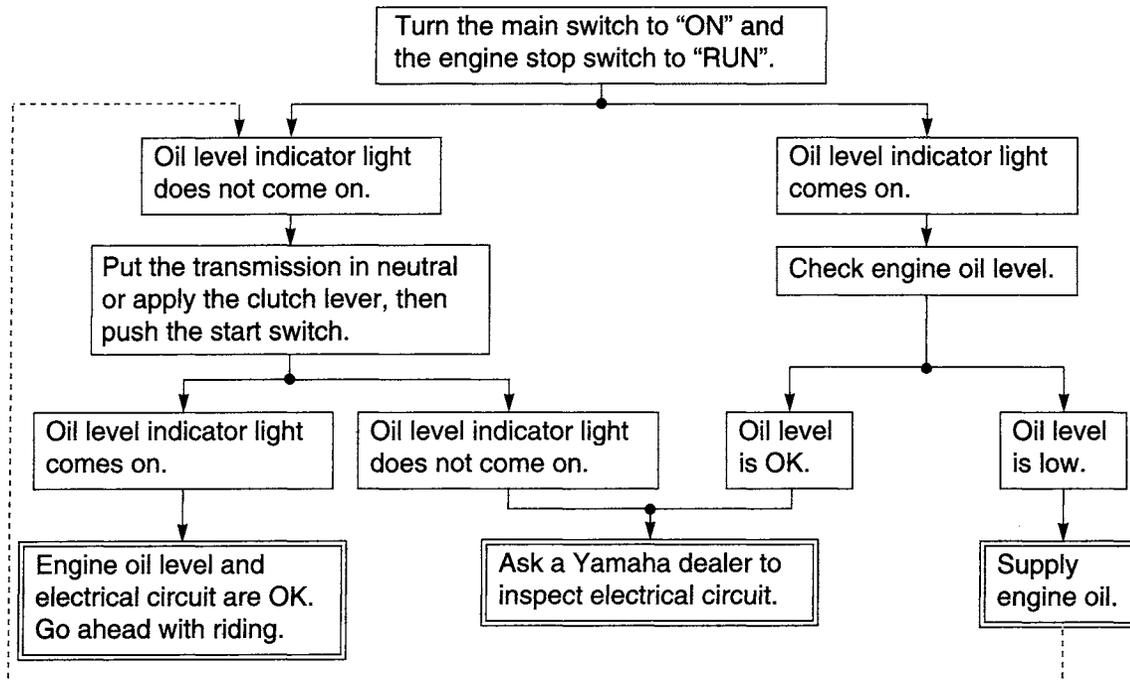
**Do not run the motorcycle until you know it has sufficient engine oil.**

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# INSTRUMENT AND CONTROL FUNCTIONS

EAU00071

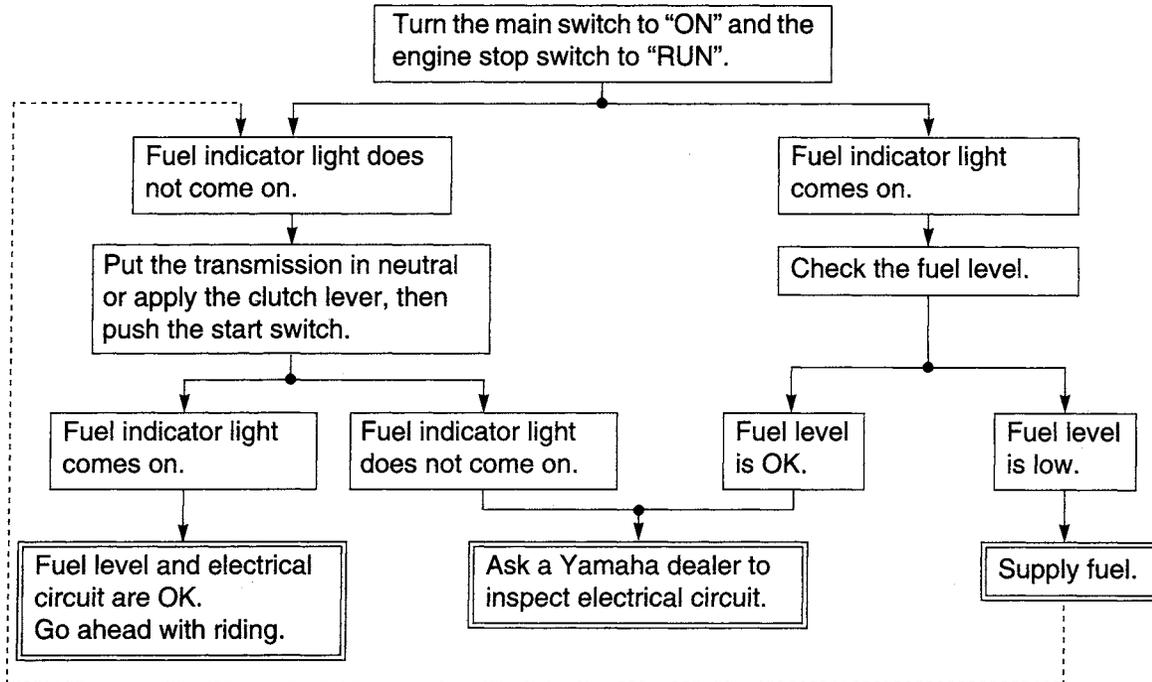
## Oil level indicator circuit check



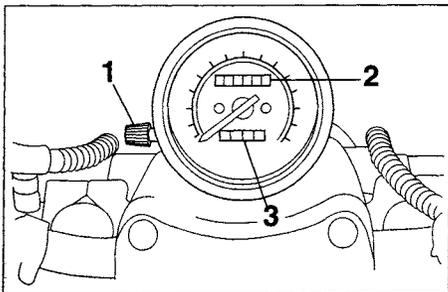
# INSTRUMENT AND CONTROL FUNCTIONS

EAU00085

## Fuel indicator circuit check



# INSTRUMENT AND CONTROL FUNCTIONS

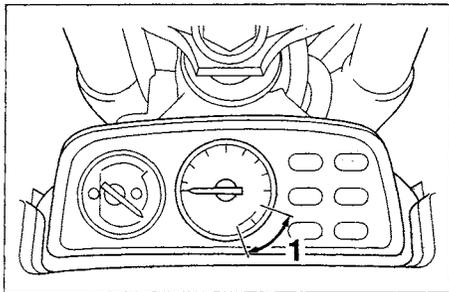


1. Reset knob
2. Odometer
3. Trip odometer.

EAU00095

## Speedometer

The speedometer shows riding speed. This speedometer is equipped with an odometer and trip odometer. The trip odometer can be reset to "0" with the reset knob. Use the trip odometer to estimate how far you can ride on a tank of fuel. This information will enable you to plan fuel stops in the future.



1. Red zone

EAU00101

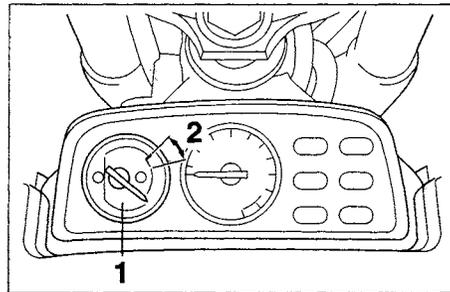
## Tachometer

This model is equipped with an electric tachometer so the rider can monitor the engine speed and keep it within the ideal power range.

EC000003

### CAUTION:

**Do not operate in the red zone.  
Red zone: 8,500 r/min and above**



1. Coolant temperature gauge
2. Red zone

EAU01652

## Coolant temperature gauge

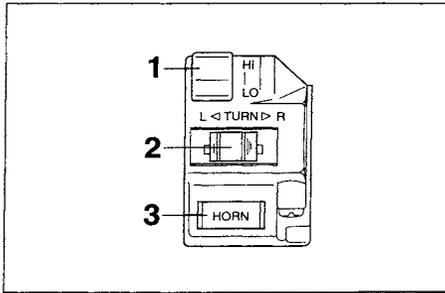
This gauge indicates the coolant temperature when the main switch is on. The engine operating temperature will vary with changes in weather and engine load. If the needle points to the red zone or higher, stop your motorcycle and let the engine cool. (See page 6-15 for details.)

EC000002

### CAUTION:

**When the engine is overheated, do not continue riding.**

# INSTRUMENT AND CONTROL FUNCTIONS



EAU01189

## Turn signal switch “TURN”

This model is equipped with self-canceling turn signals. To signal a right-hand turn, push the switch to the right. To signal a left-hand turn, push the switch to the left. Once the switch is released, it will return to the center position and self-cancel after the motorcycle has traveled both about 150 m (490 ft) and for approximately 15 seconds. The self-canceling mechanism only operates when the motorcycle is moving. Therefore the signal will not self-cancel while you are stopped at an intersection. The signal may also be canceled manually by pushing the switch in after it has returned to the center position.

EAU00130

## Horn switch “HORN”

Press the switch to sound the horn.

1. Dimmer switch “LIGHTS”
2. Turn signal switch “TURN”
3. Horn switch “HORN”

EAU00118

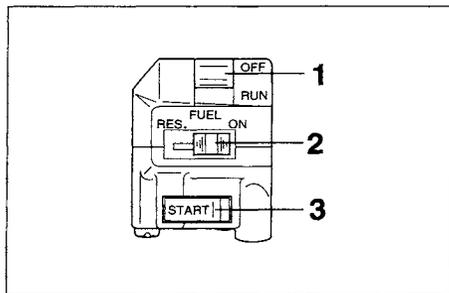
## Handlebar switches

EAU00122

### Dimmer switch “LIGHTS”

Turn the switch to “HI” for the high beam and to “LO” for the low beam.

# INSTRUMENT AND CONTROL FUNCTIONS



1. Engine stop switch "ENGINE STOP"
2. Fuel reserve switch "FUEL"
3. Start switch "START"

EAU00137

## Engine stop switch "ENGINE STOP"

The engine stop switch is a safety device for use in an emergency such as when the motorcycle overturns or if trouble occurs in the throttle system. Turn the switch to "RUN" to start the engine. In case of emergency, turn the switch to "OFF" to stop the engine.

EAU01653

## Fuel reserve switch "FUEL"

This switch should usually be kept in the "ON" position while riding. If the fuel indicator light comes on while riding, move the switch to "RES" and refuel at the first opportunity. Then, move the switch back to "ON".

### NOTE:

When the switch is turned to "RES", about 3 L (0.7 Imp gal, 0.8 US gal) remain in the fuel tank.

EAU00141

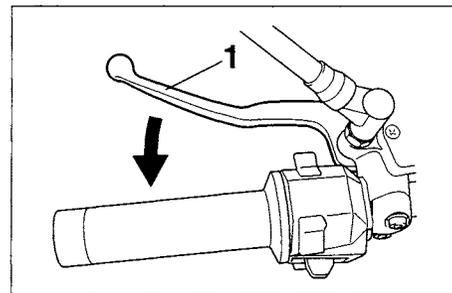
## Start switch "START"

The starter motor cranks the engine when pushing the start switch.

EC000005

### CAUTION:

**See starting instructions prior to starting the engine.**



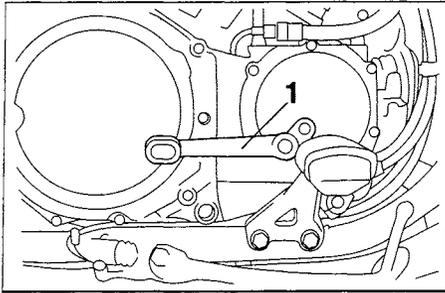
1. Clutch lever

EAU00152

## Clutch lever

The clutch lever is located on the left handlebar, and the ignition circuit cut-off system is incorporated in the clutch lever holder. Pull the clutch lever to the handlebar to disengage the clutch, and release the lever to engage the clutch. The lever should be pulled rapidly and released slowly for smooth clutch operation. (Refer to the engine starting procedures for a description of the ignition circuit cut-off system.)

# INSTRUMENT AND CONTROL FUNCTIONS

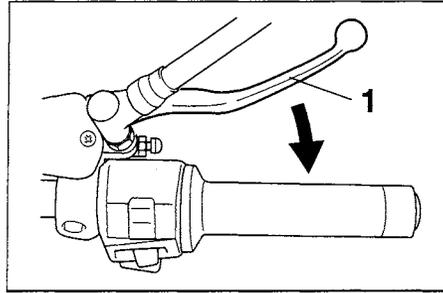


1. Shift pedal

EAU00157

## Shift pedal

This motorcycle is equipped with a constant-mesh 5-speed transmission. The shift pedal is located on the left side of the engine and is used in combination with the clutch when shifting.

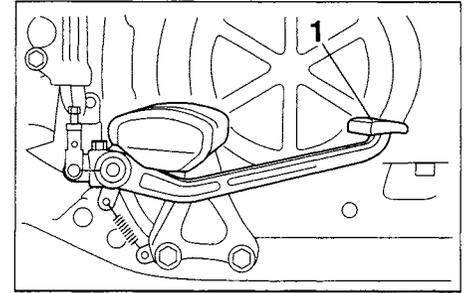


1. Front brake lever

EAU00158

## Front brake lever

The front brake lever is located on the right handlebar. Pull it toward the handlebar to apply the front brake.



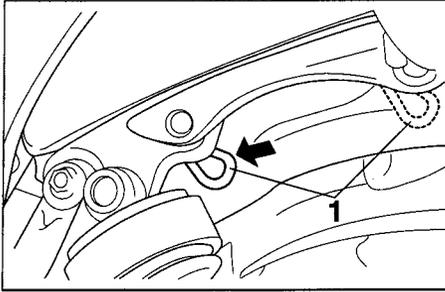
1. Rear brake pedal

EAU00162

## Rear brake pedal

The rear brake pedal is on the right side of the motorcycle. Press down on the brake pedal to apply the rear brake.

# INSTRUMENT AND CONTROL FUNCTIONS



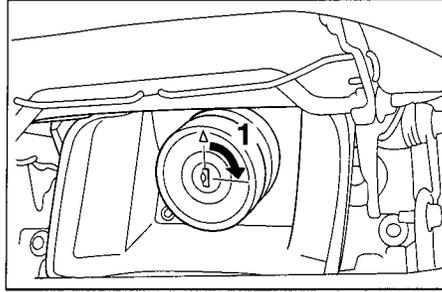
1. Lever (x 2)

EAU01654

## Fuel tank cap

### To open

1. Push the levers (left and right) of the rider seat backrest as shown and slide the rider seat backrest forward.
2. Insert the key and turn it clockwise 1/4 turn. The lock will be released and the cap can be opened.



1. Open

### To close

1. Push the tank cap into position with the key inserted. To remove the key, turn it counterclockwise to the original position.

### NOTE:

This tank cap cannot be closed unless the key is in the lock. The key cannot be removed if the cap is not locked properly.

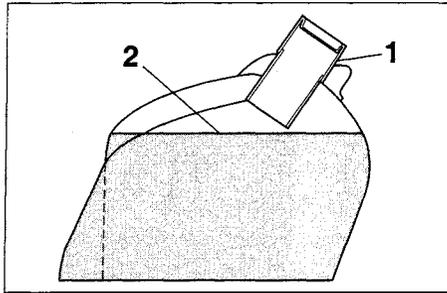
2. Slide the rider seat backrest rearward and push it down.

EW000023

### **! WARNING**

**Be sure the cap is properly installed and locked in place before riding the motorcycle.**

# INSTRUMENT AND CONTROL FUNCTIONS



1. Filler tube
2. Fuel level

EAU01183

## Fuel

Make sure there is sufficient fuel in the tank. Fill the fuel tank to the bottom of the filler tube as shown in the illustration.

EW000130

## **! WARNING**

**Do not overfill the fuel tank. Avoid spilling fuel on the hot engine. Do not fill the fuel tank above the bottom of the filler tube or it may overflow when the fuel heats up later and expands.**

EAU00185

## **CAUTION:**

**Always wipe off spilled fuel immediately with a dry and clean soft cloth. Fuel may deteriorate painted surfaces or plastic parts.**

EAU00189

Recommended fuel:

**UNLEADED FUEL**

Fuel tank capacity:

Total:

15 L (3.3 Imp gal, 4.0 US gal)

Reserve:

3 L (0.7 Imp gal, 0.8 US gal)

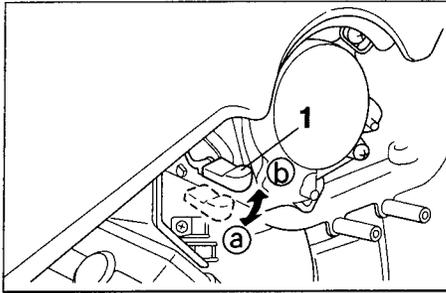
is not available, then leaded regular gasoline can be used.

## Gasohol

There are two types of gasohol; gasohol containing ethanol and that containing methanol. Gasohol containing ethanol can be used if ethanol content does not exceed 10%. Gasohol containing methanol is not recommended by Yamaha because it can cause fuel system damage or vehicle performance problems.

Your Yamaha 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. If unleaded gasoline

# INSTRUMENT AND CONTROL FUNCTIONS



1. Starter (choke)

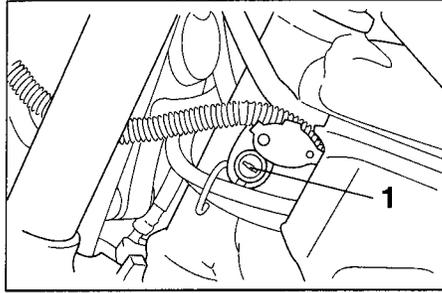
EAU00211

## Starter (choke)

Starting a cold engine requires a richer air-fuel mixture. A separate starter circuit supplies this mixture.

Move in direction Ⓐ to turn on the starter (choke).

Move in direction Ⓑ to turn off the starter (choke).



1. Steering lock

EAU02934

## Steering lock

### To lock the steering

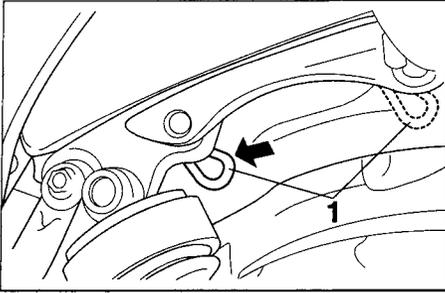
Turn the handlebars all the way to the right and open the steering lock cover. Insert the key and turn it 1/8 turn counterclockwise. Then, push the key in while turning the handlebars slightly to the left and turn the key 1/8 turn clockwise.

Check that the steering is locked, remove the key and close the lock cover.

### To unlock the steering

Insert the key, push it in and turn it 1/8 turn counterclockwise so that it moves out. Then, release and remove the key.

# INSTRUMENT AND CONTROL FUNCTIONS



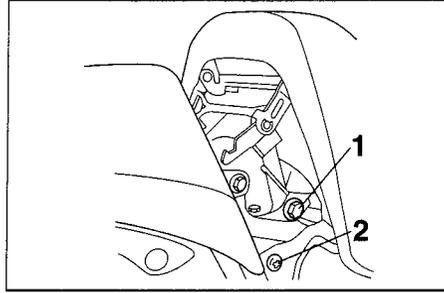
1. Lever (x 2)

EAU01655

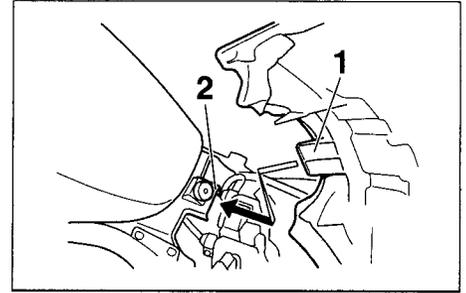
## Rider seat

### To remove

1. Release the rider seat backrest.  
(See page 3-9 for details on how to move the backrest forward and back.)



1. Bolt (x 2)
  2. Screw (x 2)
2. Remove the seat bolts and screws.



1. Projection
2. Seat holder

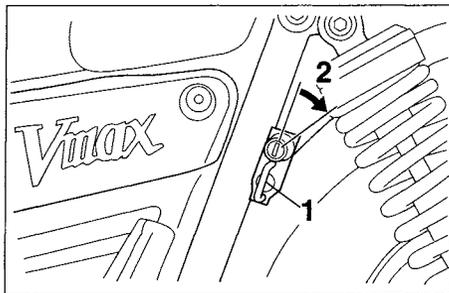
### To install

1. Insert the projection on the front of the seat into the seat holder, then tighten the seat bolts and screws.

**NOTE:** \_\_\_\_\_  
Make sure that the seat is securely fitted.

2. Return the rider seat backrest to its original position.

# INSTRUMENT AND CONTROL FUNCTIONS



1. Helmet holder
2. Open

EAU00260

## Helmet holder

To open the helmet holder, insert the key in the lock and turn it as shown. To lock the helmet holder, replace the holder in its original position.

EW000030

### WARNING

Never ride with a helmet in the helmet holder. The helmet may hit objects, causing loss of control and possibly an accident.

EAU03001

## Front fork adjustment

This front fork is equipped with a spring preload adjuster.

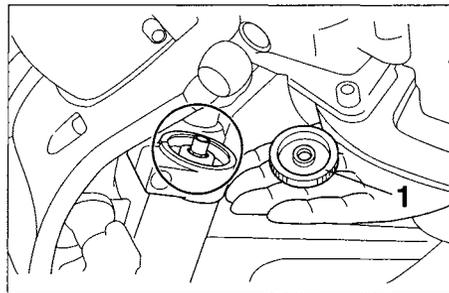
EW000037

### WARNING

Each fork leg must be set to the same pressure. Uneven setting can cause poor handling and loss of stability.

Adjust spring preload as follows.

The front fork spring preload is adjusted by changing the air pressure.



1. Valve cap

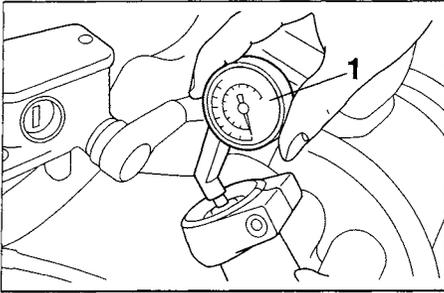
1. Elevate the front wheel by placing the motorcycle on the centerstand.

### NOTE:

In order to check or adjust the air pressure, the motorcycle must be elevated so the front wheel is not in contact with the ground.

2. Remove the air valve cap from each fork leg.

# INSTRUMENT AND CONTROL FUNCTIONS



1. Air check gauge

3. Use an air pressure gauge to check and adjust the air pressure. Increasing the air pressure increases the spring preload and decreasing it, decreases spring preload.

To increase spring preload: Use an air pump or compressed air.

To decrease spring preload: Release the air by pushing the air valve.

**NOTE:**

An optional air pressure gauge is available at a nearby Yamaha dealer.

Spring preload (air pressure):

Minimum/Standard:

40 kPa (0.4 kgf/cm<sup>2</sup>, 5.7 psi)

Maximum:

100 kPa (1.0 kgf/cm<sup>2</sup>, 14 psi)

EC000012

**CAUTION:**

**Never exceed the maximum pressure, or oil seal damage may occur.**

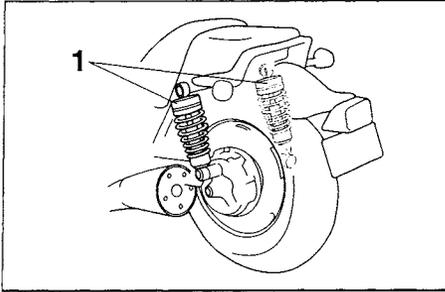
EW000035

**WARNING**

**Always adjust each fork leg to the same setting. Uneven adjustment can cause poor handling and loss of stability.**

4. Install the air valve caps securely.

# INSTRUMENT AND CONTROL FUNCTIONS

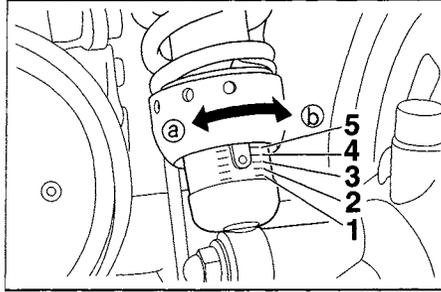


1. Rear shock absorber (x 2)

EAU01657

## Rear shock absorber adjustment

The rear shock absorbers are equipped with spring preload and damping force adjusters.

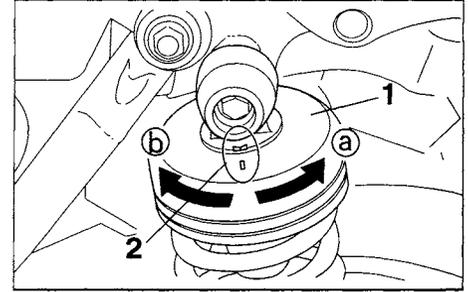


- a. Increase
- b. Decrease

## Adjusting spring preload

Turn the adjuster in direction (a) to increase spring preload and in direction (b) to decrease spring preload. Make sure to align the adjuster's bottom edge with the appropriate setting on the shock absorber.

Minimum: 1 (soft)  
Standard: 1  
Maximum: 5 (hard)



- 1. Damping force adjuster
- 2. Position indicator

## Adjusting damping force

Turn the adjuster in direction (a) to increase damping force and in direction (b) to decrease damping force. Make sure to align the appropriate setting with the position indicator.

Minimum: 1 (soft)  
Standard: 1  
Maximum: 4 (hard)

# INSTRUMENT AND CONTROL FUNCTIONS

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EW000040

## **WARNING**

Always adjust each shock absorber to the same setting. Uneven adjustment can cause poor handling and loss of stability.

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# INSTRUMENT AND CONTROL FUNCTIONS

EAU01658

## Recommended combinations of the front fork and the rear shock absorber settings

Use this table as a guide for specific settings according to motorcycle load conditions.

Loading condition	Front fork adjustment	Rear shock absorber adjustment	
	Spring preload (air pressure)	Spring preload	Damping force
Solo rider	40 ~ 60 kPa (0.4 ~ 0.6 kgf/cm <sup>2</sup> , 5.7 ~ 8.5 psi)	1 ~ 2	1 ~ 2
With passenger or with accessories and equipment	40 ~ 100 kPa (0.4 ~ 1.0 kgf/cm <sup>2</sup> , 5.7 ~ 14 psi)	3 ~ 5	2 ~ 4
With accessories, equipment and passenger	40 ~ 100 kPa (0.4 ~ 1.0 kgf/cm <sup>2</sup> , 5.7 ~ 14 psi)	5	4

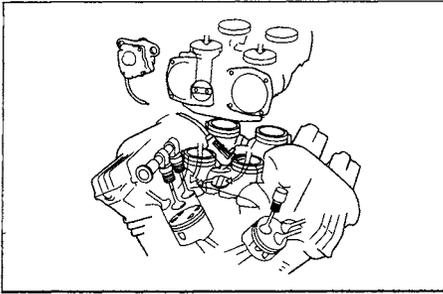
EC000016

### CAUTION:

**Never attempt to turn the adjuster beyond the maximum or minimum setting.**

# INSTRUMENT AND CONTROL FUNCTIONS

EAU00330



EAU00327

## V-Boost

The V-Boost is a vital part of the engine and requires very sophisticated adjustment. Adjustment should be left to a Yamaha dealer who has the professional knowledge and experience to do so.

EC000025

### **CAUTION:**

The V-Boost was set at the Yamaha factory after many tests. If the settings are changed by someone without sufficient technical knowledge, poor engine performance and damage may result.

The V-Boost operation can be heard when the main switch is turned on.

EC000026

### **CAUTION:**

If the V-Boost does not operate, ask a Yamaha dealer to inspect it.

## Sidestand

This model is equipped with an ignition circuit cut-off system. The motorcycle must not be ridden when the sidestand is down. The sidestand is located on the left side of the frame. (Refer to page 5-1 for an explanation of this system.)

EW000044

### **! WARNING**

This motorcycle must not be operated with the sidestand in the down position. If the stand is not properly retracted, it could contact the ground and distract the operator, resulting in a possible loss of control. Yamaha has designed into this motorcycle a lockout system to assist the operator in fulfilling the responsibility of retracting the sidestand. Please check carefully the operating instructions listed below and if there is any indication of a malfunction, return the motorcycle to a Yamaha dealer immediately for repair.

# INSTRUMENT AND CONTROL FUNCTIONS

EAU00332

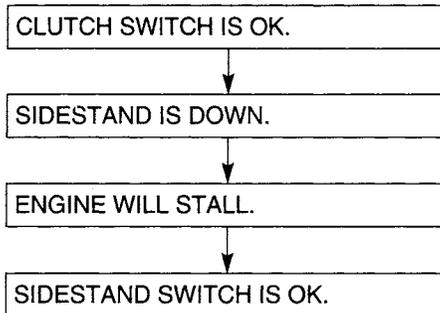
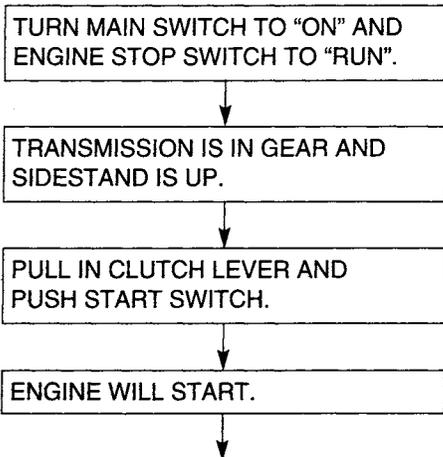
## Sidestand/clutch switch operation check

Check the operation of the sidestand switch and clutch switch against the information below.

EW000046

### WARNING

- Be sure to use the centerstand during this inspection.
- If improper operation is noted, consult a Yamaha dealer.



# PRE-OPERATION CHECKS

Pre-operation check list..... 4-1

# PRE-OPERATION CHECKS

EAU01114

Owners are personally responsible for their vehicle's condition. Your motorcycle's vital functions can start to deteriorate quickly and unexpectedly, even if it remains unused (for instance, if it is exposed to the elements). Any damage, fluid leak or loss of tire pressure could have serious consequences. Therefore, it is very important that, in addition to a thorough visual inspection, you check the following points before each ride.

EAU00340

## PRE-OPERATION CHECK LIST

No.	ITEM	CHECKS	PAGE
1	Front and rear 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>	6-25 ~ 6-28
2	Clutch	<ul style="list-style-type: none"><li>• Check operation, fluid level and fluid leakage.</li><li>• Fill with DOT 4 (or DOT 3) brake fluid if necessary.</li></ul>	6-24
3	Engine oil	<ul style="list-style-type: none"><li>• Check oil level.</li><li>• Fill with oil if necessary.</li></ul>	6-11 ~ 6-13
4	Final gear oil	<ul style="list-style-type: none"><li>• Check vehicle for leakage.</li></ul>	6-14
5	Coolant reservoir tank	<ul style="list-style-type: none"><li>• Check coolant level.</li><li>• Fill with coolant if necessary.</li></ul>	6-15
6	Throttle grip and housing	<ul style="list-style-type: none"><li>• Check for smooth operation.</li><li>• Lubricate if necessary.</li></ul>	6-20, 6-29
7	Battery	<ul style="list-style-type: none"><li>• Check fluid level.</li><li>• Fill with distilled water if necessary.</li></ul>	6-32 ~ 6-35
8	Lights, signals and switches	<ul style="list-style-type: none"><li>• Check for proper operation.</li></ul>	6-37, 6-38 ~ 6-39
9	Wheels and tires	<ul style="list-style-type: none"><li>• Check tire pressure, wear and damage.</li></ul>	6-21 ~ 6-23, 6-39 ~ 6-43
10	Chassis fasteners	<ul style="list-style-type: none"><li>• Make sure that all nuts, bolts and screws are properly tightened.</li><li>• Tighten if necessary.</li></ul>	—

# PRE-OPERATION CHECKS

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## NOTE:

Pre-operation checks should be made each time the motorcycle is used. Such an inspection can be thoroughly accomplished in a very short time; and the added safety it assures is more than worth the time involved.

---

## WARNING

- If any item in the PRE-OPERATION CHECK is not working properly, have it inspected and repaired before operating the motorcycle.
  - The engine and exhaust system will be very hot after the engine has been run. Be careful not to touch them or to allow any clothing item to contact them during inspection or repair.
-

## OPERATION AND IMPORTANT RIDING POINTS

Starting and warming up a cold engine .....	5-1
Starting a warm engine .....	5-4
Shifting .....	5-5
To start out and accelerate .....	5-5
To decelerate .....	5-6
Recommended shift points.....	5-6
Engine break-in .....	5-6
Parking .....	5-7

EAU00373

**⚠ WARNING**

- Before riding this motorcycle, become thoroughly familiar with all operating controls and their functions. Consult a Yamaha dealer regarding any control or function that you do not thoroughly understand.
- Never start your engine or let it run for any length of time in a closed area. The exhaust fumes are poisonous and can cause loss of consciousness and death within a short time. Always operate your motorcycle in an area with adequate ventilation.
- Before starting out, always be sure the sidestand is up. Failure to retract the sidestand completely can result in a serious accident when you try to turn a corner.

EAU00376

**CAUTION:**

- Be careful where you store personal items on the motorcycle. Avoid blocking the air cleaner intake or performance will suffer.
- Be careful not to put anything near the battery and its terminals. Electrical failure and acid corrosion may result.

EAU01164

## Starting and warming up a cold engine

**NOTE:**

This motorcycle is equipped with an ignition circuit cut-off system.

The engine can be started only under one of the following conditions:

- The transmission is in neutral.
- The sidestand is up, the transmission is in gear and the clutch is disengaged.

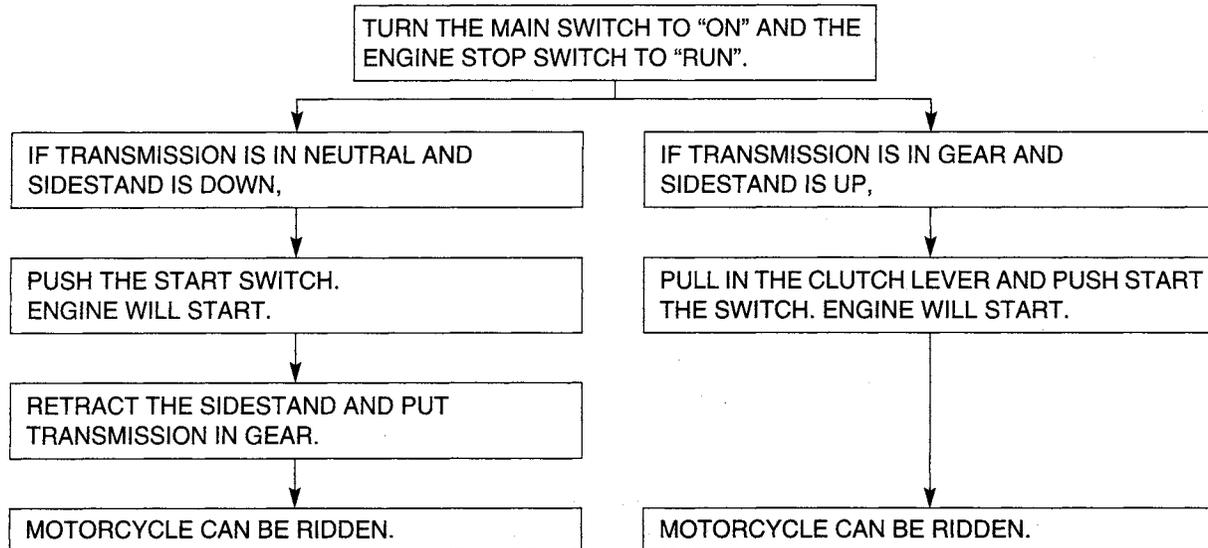
The motorcycle must not be ridden when the sidestand is down.

EW000054

**⚠ WARNING**

**Before going through the following steps, check the function of the sidestand switch and clutch switch. (Refer to page 3-19.)**

# OPERATION AND IMPORTANT RIDING POINTS



# OPERATION AND IMPORTANT RIDING POINTS

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---

1. Turn the main switch to “ON” and the engine stop switch to “RUN”.

EC000035

## **CAUTION:** \_\_\_\_\_

**If the fuel indicator light comes on, check the fuel level. If necessary, fill the tank with fuel.**

---

2. Shift the transmission into neutral.

## **NOTE:** \_\_\_\_\_

When the transmission is in neutral, the neutral indicator light should be on. If the light does not come on, ask a Yamaha dealer to inspect it.

---

3. Turn on the starter (choke) and completely close the throttle grip.
4. Start the engine by pushing the start switch.

## **NOTE:** \_\_\_\_\_

If the engine fails to start, release the start switch, wait a few seconds, then try again. Each attempt should be as short as possible to preserve the battery. Do not crank the engine more than 10 seconds on any one attempt.

---

EC000036

## **CAUTION:** \_\_\_\_\_

**The oil level indicator light and fuel indicator light should come on when the start switch is pushed and should go off when the start switch is released. If the oil level indicator light flickers or remains on, immediately stop the engine and check the engine oil level and for oil leakage. If necessary, fill the engine with oil and check to see that the oil level indicator light goes off. If not, consult a Yamaha dealer.**

---

5. After starting the engine, move the starter (choke) to the warming up position.

## **NOTE:** \_\_\_\_\_

For maximum engine life, always warm up the engine before starting off. Never accelerate hard with a cold engine.

---

6. After warming up the engine, turn off the starter (choke) completely.

---

# OPERATION AND IMPORTANT RIDING POINTS

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EAU01258

**NOTE:** \_\_\_\_\_

- The engine is warm when it responds normally to the throttle with the starter turned off. To avoid the possibility of excessive exhaust emissions, never leave the starter circuit on longer than necessary. The length of time the starter is needed depends upon the ambient temperature. Warm ambient temperatures (above 10°C/50°F) require about 7 seconds of starter use. Cold ambient temperatures (below 10°C/50°F) require about 35 seconds with the starter turned on, then about 2.5 minutes with the starter in the halfway position.
  - For maximum engine life, always warm up the engine before starting off. Never accelerate hard with a cold engine.
- 

## Starting a warm engine

The starter (choke) is not required when the engine is warm.

EC000046

**CAUTION:** \_\_\_\_\_

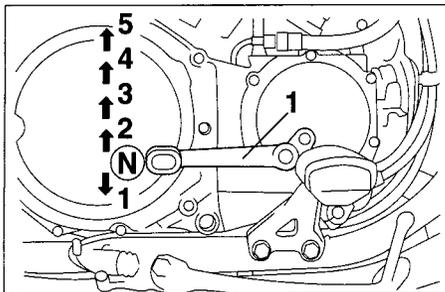
**See the “Engine break-in” section prior to operating the motorcycle for the first time.**

---

# OPERATION AND IMPORTANT RIDING POINTS

EC000048

EAU01205



1. Shift pedal  
N. Neutral

EAU00423

## Shifting

The transmission lets you control the amount of power you have available at a given speed for starting, accelerating, climbing hills, etc. The use of the shift pedal is shown in the illustration.

To shift into neutral, depress the shift pedal repeatedly until it reaches the end of its travel, then raise the pedal slightly.

### CAUTION:

- Do not coast for long periods with the engine off, and do not tow the motorcycle a long distance. Even with gears in neutral, the transmission is only properly lubricated when the engine is running. Inadequate lubrication may damage the transmission.
- Always use the clutch when changing gears. The engine, transmission, and driveline are not designed to withstand the shock of forced shifting and can be damaged by shifting without using the clutch.

## To start out and accelerate

1. Pull the clutch lever to disengage the clutch.
2. Shift into first gear. The neutral indicator light should go out.
3. Open the throttle gradually, and at the same time, release the clutch lever slowly.
4. At the recommended shift point in the table on page 5-6, close the throttle, and at the same time, quickly pull in the clutch lever.
5. Shift into second gear. (Be careful not to shift into neutral.)
6. Open the throttle part way and gradually release the clutch lever.
7. Follow the same procedure when shifting to the next higher gear. Always shift gears at the recommended shift points.

# OPERATION AND IMPORTANT RIDING POINTS

EAU00427

EAU02974

EAU00436

## To decelerate

1. Apply both the front and the rear brakes at the same time to slow the motorcycle.
2. When the motorcycle reaches 20 km/h (12.5 mi/h), shift into first gear. Any time the engine is about to stall or runs very roughly, pull in the clutch and use the brakes to stop.
3. When the motorcycle is almost completely stopped, shift into neutral. The neutral indicator light should come on.

## Recommended shift points

	Acceleration shift point km/h (mi/h)	Deceleration shift point km/h (mi/h)
1st → 2nd	16 (10.0)	20 (12.5)
2nd → 3rd	24 (15.0)	20 (12.5)
3rd → 4th	32 (20.0)	20 (12.5)
4th → 5th	40 (25.0)	20 (12.5)

## Engine break-in

There is never a more important period in the life of your motorcycle than the period between zero and 1,000 km (600 mi). For this reason we ask that you carefully read the following material. Because the engine is brand new, you must not put an excessive load on it for the first 1,000 km (600 mi). The various parts in the engine wear and polish themselves to the correct operating clearances. During this period, prolonged full throttle operation, or any condition which might result in excessive heating of the engine, must be avoided.

# OPERATION AND IMPORTANT RIDING POINTS

---

## 0 ~ 150 km (0 ~ 90 mi)

EAU00442

Avoid operation above 4,500 r/min. Stop the engine and let it cool for 5 to 10 minutes after every hour of operation. Vary the speed of the motorcycle from time to time. Do not operate it at one set throttle position.

## 150 ~ 500 km (90 ~ 300 mi)

Avoid prolonged operation above 5,500 r/min. Rev the motorcycle freely through the gears, but do not use full throttle at any time.

## 500 ~ 1,000 km (300 ~ 600 mi)

Avoid prolonged full throttle operation. Avoid cruising speeds in excess of 6,500 r/min.

EC000056

### CAUTION:

---

After 1,000 km (600 mi) of operation, be sure to replace the engine oil, oil filter and final gear oil.

---

## 1,000 km (600 mi) and beyond

Full throttle can be used.

EC000053

### CAUTION:

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- Never let engine speeds enter the red zone.
  - If any engine trouble should occur during the break-in period, consult a Yamaha dealer immediately.
- 

EAU00460

## Parking

When parking the motorcycle, stop the engine and remove the ignition key.

EW000058

### WARNING

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The exhaust system is hot. Park the motorcycle in a place where pedestrians or children are not likely to touch the motorcycle. Do not park the motorcycle on a slope or soft ground; the motorcycle may overturn.

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# PERIODIC MAINTENANCE AND MINOR REPAIR

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EAU01790

Periodic inspection, adjustment, and lubrication will keep your motorcycle in the safest and most efficient condition possible. Safety is an obligation of the motorcycle owner. The most important points of motorcycle inspection, adjustment, and lubrication are explained in the following pages.

**Maintenance, replacement, or repair of the emission control devices and systems may be performed by any repair establishment or individual that is certified (if applicable).**

EW000060

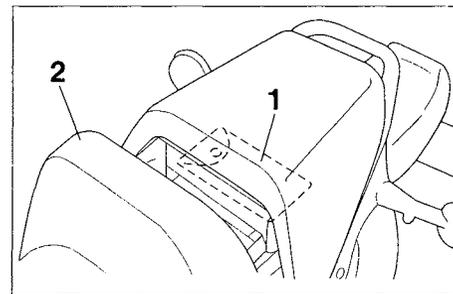
## **⚠ WARNING**

**If you are not familiar with motorcycle service, this work should be done by a Yamaha dealer.**

EAU00467

## PERIODIC MAINTENANCE

PROPER PERIODIC MAINTENANCE OF YOUR MOTORCYCLE IS IMPORTANT IN ORDER TO ENJOY LONG, PLEASURABLE SERVICE. ESPECIALLY IMPORTANT ARE THE MAINTENANCE SERVICES RELATED TO EMISSIONS CONTROL. THESE CONTROLS NOT ONLY FUNCTION TO ENSURE CLEANER AIR BUT ARE ALSO VITAL TO PROPER ENGINE OPERATION AND MAXIMUM PERFORMANCE. IN THE FOLLOWING TABLES OF PERIODIC MAINTENANCE, THE SERVICES RELATED TO EMISSIONS CONTROL ARE GROUPED SEPARATELY. THESE SERVICES REQUIRE SPECIALIZED DATA, KNOWLEDGE, AND EQUIPMENT. YAMAHA DEALERS ARE TRAINED AND EQUIPPED TO PERFORM THESE PARTICULAR SERVICES.



1. Tool kit
2. Rider seat backrest

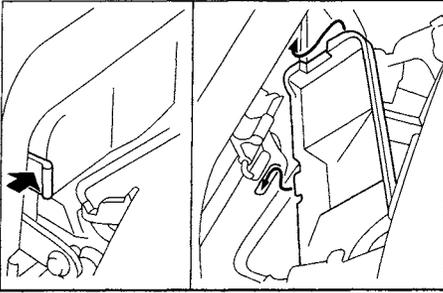
EAU01659

## Tool kit

The tool kit is located inside of the storage compartment behind the rider seat backrest. (See page 3-9 for details on moving the rider seat backrest forward and back.) The tools provided in the owner's tool kit are to assist you in the performance of periodic maintenance. However, some other tools such as a torque wrench are also necessary to perform the maintenance correctly.

# PERIODIC MAINTENANCE AND MINOR REPAIR

EW000063



## **⚠ WARNING**

Modifications to this motorcycle not approved by Yamaha may cause loss of performance, and render it unsafe for use. Consult a Yamaha dealer before attempting any changes.

The service information included in this manual is intended to provide you, the owner, with the necessary information for completing some of your own preventive maintenance and minor repairs.

### **NOTE:**

If you do not have necessary tools required during a service operation, take your motorcycle to a Yamaha dealer for service.

# PERIODIC MAINTENANCE AND MINOR REPAIR

EAU00471

## PERIODIC MAINTENANCE CHART FOR EMISSION CONTROL SYSTEM

No.	ITEM	ROUTINE	INITIAL	ODOMETER READINGS				
			600 mi (1,000 km) or 1 month	4,000 mi (7,000 km) or 6 months	8,000 mi (13,000 km) or 12 months	12,000 mi (19,000 km) or 18 months	16,000 mi (25,000 km) or 24 months	20,000 mi (31,000 km) or 30 months
1	* Valve clearance	• Check and adjust valve clearance when engine is cold.	Every 30,000 mi (42,000 km) or 42 months					
2	Spark plugs	• Check condition. • Adjust gap and clean. • Replace at 8,000 mi (13,000 km) or 12 months and thereafter every 8,000 mi (13,000 km) or 12 months.		√	Replace	√	Replace	√
3	* Crankcase ventilation system	• Check ventilation hose for cracks or damage. • Replace if necessary.		√	√	√	√	√
4	* Fuel line	• Check fuel hose and vacuum pipe for cracks or damage. • Replace if necessary.		√	√	√	√	√
5	* Fuel filter	• Replace initial 20,000 mi (31,000 km) and thereafter every 20,000 mi (31,000 km).						Replace
6	* Exhaust system	• Check for leakage. • Retighten if necessary. • Replace gaskets if necessary.		√	√	√	√	√
7	* Carburetor synchronization	• Adjust synchronization of carburetors.	√	√	√	√	√	√
8	* Idle speed	• Check and adjust engine idle speed. • Adjust cable free play.		√	√	√	√	√
9	* Evaporative emission control system**	• Check control system for damage. • Replace if necessary.				√		√

\* Since these items require special tools, data and technical skills, they should be serviced by a Yamaha dealer.

\*\* For California.

# PERIODIC MAINTENANCE AND MINOR REPAIR

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EAU01695

**NOTE:**

For odometer readings or time periods higher than 20,000 mi (31,000 km) or 30 months, repeat the same maintenance as listed in the chart from the 4,000 mi (7,000 km) or 6 month interval.

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# PERIODIC MAINTENANCE AND MINOR REPAIR

EAU00472

## GENERAL MAINTENANCE AND LUBRICATION CHART

No.	ITEM	ROUTINE	TYPE	INITIAL	ODOMETER READINGS					
				600 mi (1,000 km) or 1 month	4,000 mi (7,000 km) or 6 months	8,000 mi (13,000 km) or 12 months	12,000 mi (19,000 km) or 18 months	16,000 mi (25,000 km) or 24 months	20,000 mi (31,000 km) or 30 months	
1	Engine oil	<ul style="list-style-type: none"> <li>Warm-up engine before draining.</li> </ul>	See page 6-11.	√		√		√		
2	Oil filter	<ul style="list-style-type: none"> <li>Replace.</li> </ul>	–	√		√		√		
3 *	Air filter	<ul style="list-style-type: none"> <li>Clean with compressed air.</li> <li>Replace if necessary.</li> </ul>	–		√	√	√	√	√	
4 *	Cooling system	<ul style="list-style-type: none"> <li>Check hose for cracks or damage.</li> <li>Replace if necessary.</li> </ul>	–		√	√	√	√	√	
		<ul style="list-style-type: none"> <li>Replace coolant every 24 months.</li> </ul>	Ethylene glycol antifreeze coolant					<b>Replace</b>		
5 *	Brake system	<ul style="list-style-type: none"> <li>Adjust free play.</li> <li>Replace pads if necessary.</li> </ul>	–	√	√	√	√	√	√	
6 *	Clutch	<ul style="list-style-type: none"> <li>Check operation and fluid leakage. (See NOTE page 6-7.)</li> <li>Correct if necessary.</li> </ul>	–	√	√	√	√	√	√	
7	Final gear oil	<ul style="list-style-type: none"> <li>Check oil level and leakage.</li> <li>Replace every 16,000 mi (25,000 km) or 24 months.</li> </ul>	SAE 80 API "GL-4" hypoid gear oil	<b>Replace</b>		<b>Check</b>		√		
8	Control and meter cable	<ul style="list-style-type: none"> <li>Apply chain lube thoroughly.</li> </ul>	Yamaha chain and cable lube or SAE 10W30 motor oil	√	√	√	√	√	√	

# PERIODIC MAINTENANCE AND MINOR REPAIR

No.	ITEM	ROUTINE	TYPE	INITIAL	ODOMETER READINGS					
				600 mi (1,000 km) or 1 month	4,000 mi (7,000 km) or 6 months	8,000 mi (13,000 km) or 12 months	12,000 mi (19,000 km) or 18 months	16,000 mi (25,000 km) or 24 months	20,000 mi (31,000 km) or 30 months	
9 *	Swingarm pivot bearing	<ul style="list-style-type: none"> <li>• Check bearing assembly for looseness.</li> <li>• Moderately repack every 16,000 mi (25,000 km).</li> </ul>	Lithium soap base grease			√		<b>Repack</b>		
10	Brake/clutch lever pivot shaft	<ul style="list-style-type: none"> <li>• Apply chain lube lightly.</li> </ul>	Yamaha chain and cable lube or SAE 10W30 motor oil		√	√	√	√	√	
11	Brake pedal and shift pedal shaft	<ul style="list-style-type: none"> <li>• Lubricate.</li> <li>• Apply chain lube lightly.</li> </ul>	Yamaha chain and cable lube or SAE 10W30 motor oil		√	√	√	√	√	
12 *	Center/sidestand pivots	<ul style="list-style-type: none"> <li>• Check operation and lubricate.</li> <li>• Apply chain lube lightly.</li> </ul>	Yamaha chain and cable lube or SAE 10W30 motor oil		√	√	√	√	√	
13 *	Front fork	<ul style="list-style-type: none"> <li>• Check operation and leakage.</li> </ul>	-		√	√	√	√	√	
14 *	Steering bearings	<ul style="list-style-type: none"> <li>• Check bearing assembly for looseness.</li> <li>• Moderately repack every 16,000 mi (25,000 km).</li> </ul>	Lithium soap base grease		√	√	√	<b>Repack</b>	√	
15 *	Wheel bearings	<ul style="list-style-type: none"> <li>• Check bearings for smooth rotation.</li> </ul>	-		√	√	√	√	√	
16 *	Battery	<ul style="list-style-type: none"> <li>• Check specific gravity and breather pipe for proper operation.</li> </ul>	-		√	√	√	√	√	

# PERIODIC MAINTENANCE AND MINOR REPAIR

No.	ITEM	ROUTINE	TYPE	INITIAL	ODOMETER READINGS					
				600 mi (1,000 km) or 1 month	4,000 mi (7,000 km) or 6 months	8,000 mi (13,000 km) or 12 months	12,000 mi (19,000 km) or 18 months	16,000 mi (25,000 km) or 24 months	20,000 mi (31,000 km) or 30 months	
17	* Sidestand switch	* Check and clean or replace if necessary.	-	√	√	√	√	√	√	√

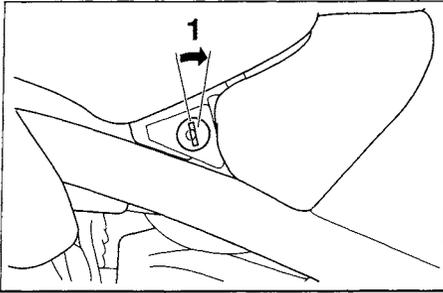
\* Since these items require special tools, data and technical skills, they should be serviced by a Yamaha dealer.

EAU02971

## NOTE:

- The air filter needs more frequent service if you are riding in unusually wet or dusty areas.
- Hydraulic brake and clutch systems
  - After disassembling the master cylinder, caliper or clutch release cylinder, always replace the brake fluid. Check the brake fluid level of the master cylinder and clutch release cylinder regularly and fill as required.
  - Replace the oil seals on the inner parts of the master cylinder, caliper and clutch release cylinder every two years.
  - Replace the brake and clutch hoses every four years or if cracked or damaged.

# PERIODIC MAINTENANCE AND MINOR REPAIR



1. Unlock

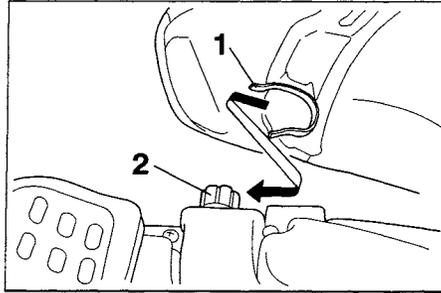
EAU01660

## Top cover removal and installation

The top cover needs to be removed to perform some of the maintenance described in this chapter. Refer to this section each time the top cover has to be removed or reinstalled.

### To remove

Insert the key into the lock and turn it clockwise. Then, pull the top cover upwards.

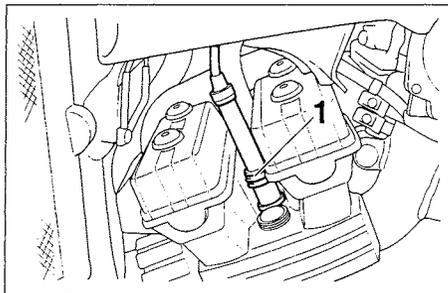


1. Holder (x 2)
2. Projection (x 2)

### To install

1. Fit the holders under the top cover onto the projections on the frame.
2. Push down on the rear of the top cover until it locks.

# PERIODIC MAINTENANCE AND MINOR REPAIR



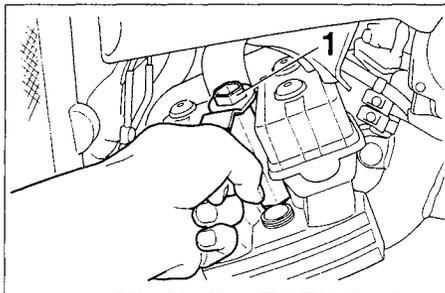
1. Spark plug cap

EAU01485

## Spark plugs

### Removal

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



1. Spark plug wrench

### 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. Normally, all spark plugs from the same engine should have the same color on the white insulator around the center electrode. The ideal color at this point is a medium-to-light tan color for a motorcycle that is being ridden normally. If one spark plug shows a distinctly different color, there could be something wrong with the engine. Do not attempt to diagnose such problems yourself. Instead, take the motorcycle to a

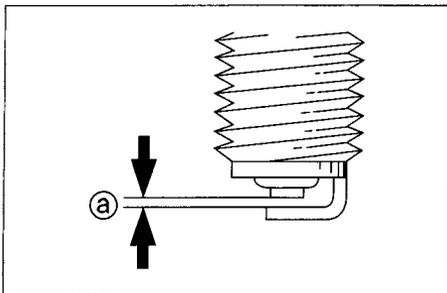
Yamaha dealer. You should periodically remove and inspect the spark plugs because heat and deposits will cause any spark plug to slowly break down and erode. If electrode erosion becomes excessive, or if carbon and other deposits are excessive, you should replace the spark plug with the specified plug.

Specified spark plug:

DPR8EA-9/NGK or

X24EPR-U9/DENSO

# PERIODIC MAINTENANCE AND MINOR REPAIR



a. Spark plug gap

## Installation

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

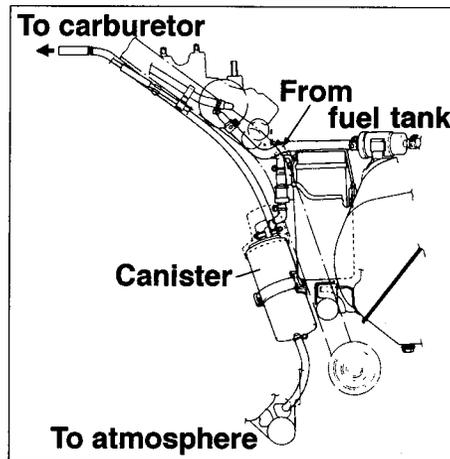
Spark plug gap:  
0.8 ~ 0.9 mm (0.031 ~ 0.035 in)

2. Clean the gasket surface. Wipe off any grime from the threads.
3. Install the spark plug and tighten it to the specified torque.

Tightening torque:  
Spark plug:  
18 Nm (1.8 m·kg, 13 ft·lb)

## NOTE:

If a torque wrench is not available when you are installing a spark plug, a good estimate of the correct torque is 1/4 to 1/2 turn past finger tight. Have the spark plug tightened to the specified torque as soon as possible.



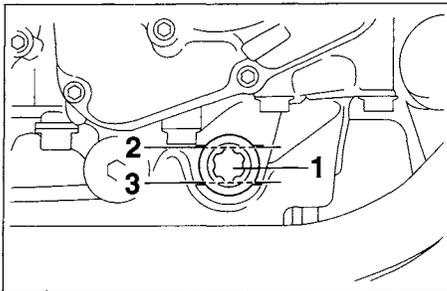
EAU01796

## Canister (for California only)

This model is equipped with a canister to prevent the discharging of fuel vapor into the atmosphere.

- Check each hose connection.
- Check each hose and canister for cracks or damage. Replace if damaged.
- Make sure the vent hose is not blocked. Clean it if necessary.

# PERIODIC MAINTENANCE AND MINOR REPAIR



1. Level window
2. Maximum level mark
3. Minimum level mark

EAU02938

## Engine oil

### Oil level inspection

1. Place the motorcycle on the centerstand. Warm up the engine for several minutes.

#### NOTE:

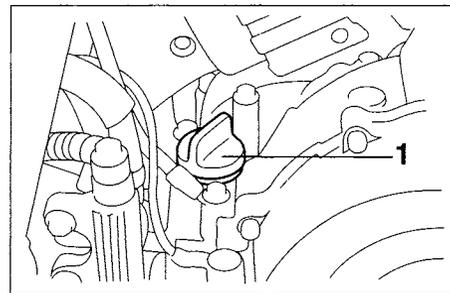
Be sure the motorcycle is positioned straight up when checking the oil level. A slight tilt toward the side can result in false readings.

2. With the engine stopped, check the oil level through the level window located at the lower part of the right side crankcase cover.

#### NOTE:

Wait a few minutes until the oil level settles before checking.

3. The oil level should be between the maximum and minimum marks. If the level is low, fill the engine with sufficient oil to reach the specified level.

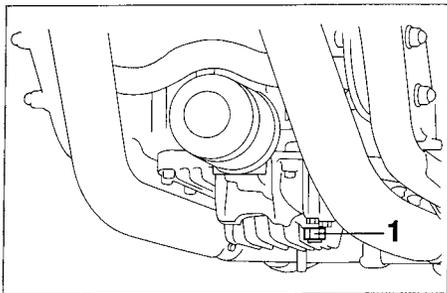


1. Oil filler cap

### Engine oil and oil filter cartridge replacement

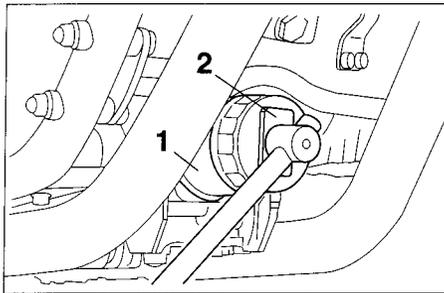
1. Warm up the engine for several minutes.
2. Stop the engine. Place an oil pan under the engine and remove the oil filler cap.

# PERIODIC MAINTENANCE AND MINOR REPAIR



1. Engine oil drain bolt

3. Remove the drain bolt and drain the oil.



1. Oil filter  
2. Oil filter wrench

4. Remove the oil filter by using an oil filter wrench.

**NOTE:** \_\_\_\_\_

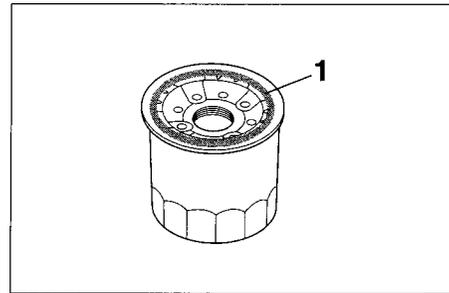
An oil filter wrench is available at a nearby Yamaha dealer.

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

**Tightening torque:**

Drain bolt:

43 Nm (4.3 m·kg, 31 ft·lb)



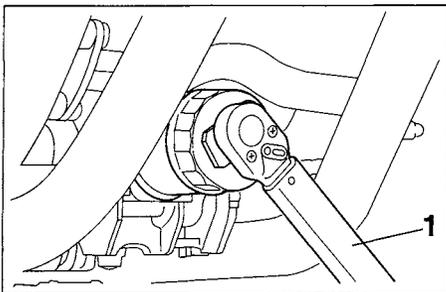
1. O-ring

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

**NOTE:** \_\_\_\_\_

Make sure the O-ring is seated properly.

# PERIODIC MAINTENANCE AND MINOR REPAIR



1. Torque wrench

7. Install the new oil filter and tighten it to the specified torque with an oil filter wrench.

## NOTE:

When installing the oil filter, tighten it to the proper torque by using a torque wrench.

Tightening torque:

Oil filter:

17 Nm (1.7 m·kg, 12 ft·lb)

8. Fill the engine with sufficient oil to reach the specified level. Install the oil filler cap and tighten it.

Recommended oil:

See page 8-1.

Oil quantity:

Total amount:

4.0 L (3.5 Imp qt, 4.2 US qt)

Periodic oil change:

3.2 L (2.8 Imp qt, 3.4 US qt)

With oil filter replacement:

3.4 L (3.0 Imp qt, 3.6 US qt)

EC000066

## CAUTION:

- Do not put in any chemical additives. Engine oil also lubricates the clutch and additives could cause clutch slippage.
- Be sure no foreign material enters the crankcase.

9. Start the engine and warm it up for several minutes. While warming up, check for oil leakage. If oil leakage is found, stop the engine immediately and check for the cause.

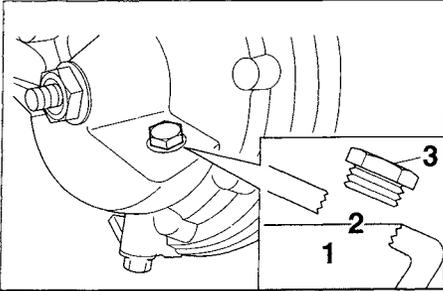
10. After the engine is started, the oil level indicator light should go off if the oil is at the specified level.

EC000067

## CAUTION:

If the indicator light flickers or remains on, immediately stop the engine and consult with a Yamaha dealer.

# PERIODIC MAINTENANCE AND MINOR REPAIR

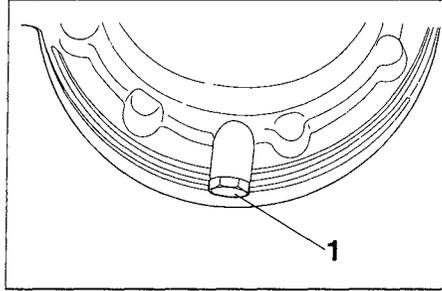


1. Final gear oil
2. Correct oil level
3. Oil filler bolt

EAU02975

## Final gear oil replacement

1. Put the motorcycle on the center-stand.
2. Place an oil pan under the final gear case.
3. Remove the oil filler bolt and the drain bolt to drain the oil.



1. Final gear oil drain bolt
4. Install and tighten the drain bolt to the specified torque.

Tightening torque:

Drain bolt:

23 Nm (2.3 m·kg, 17 ft·lb)

5. Fill the gear case with the recommended oil.

Recommended oil:

SAE 80 API GL-4 Hypoid gear oil  
If desired, an SAE 80W90 hypoid gear oil may be used for all conditions.

Final gear oil quantity:

0.2 L (0.18 Imp qt, 0.21 US qt)

## NOTE:

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

EW000066

## WARNING

**Do not let foreign material enter the final gear case. Be sure oil does not get on the tire or wheel.**

6. Install the oil filler bolt.
7. After replacing the final gear oil, be sure to check for oil leakage.

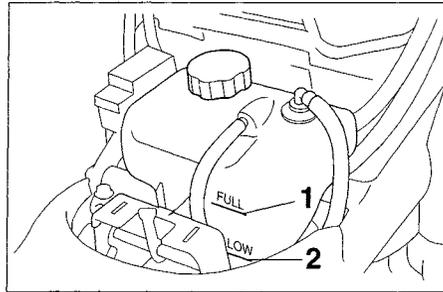
# PERIODIC MAINTENANCE AND MINOR REPAIR

EAU01630

EC000080

## Cooling system

1. Remove the top cover. (See page 6-8 for top cover removal and installation procedures.)



1. Maximum level mark
2. Minimum level mark

2. Check the coolant level in the reservoir tank when the engine is cold as the coolant level will vary with engine temperature. The coolant level should be between the maximum and minimum marks.
3. If the level is low, add coolant or distilled water to raise it to the specified level.
4. Install the top cover.

Reservoir tank capacity:  
0.3 L (0.26 Imp qt, 0.32 US qt)

### CAUTION:

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

### NOTE:

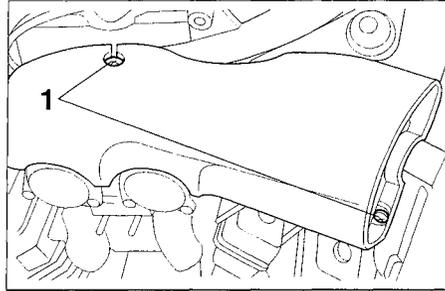
- If water is added, have a Yamaha dealer check the antifreeze content of the coolant as soon as possible.
  - The radiator fan operation is completely automatic. It is switched on or off according to the coolant temperature in the radiator.
5. If your motorcycle overheats, see page 6-45 for details.

# PERIODIC MAINTENANCE AND MINOR REPAIR

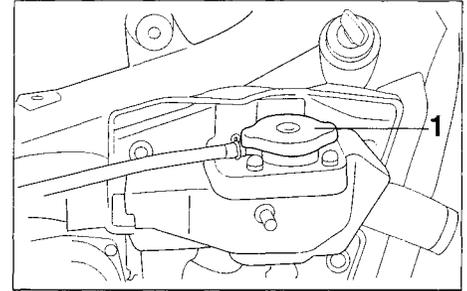
## Changing the coolant

EAU01661

1. Remove the top cover. (See page 6-8 for removal and installation procedures.)

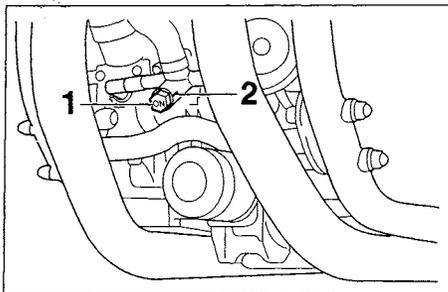


1. Screw (x 2)
2. Remove the front right side cover by removing the screws.
3. Place a container under the engine.



1. Radiator cap
4. Remove the radiator cap.

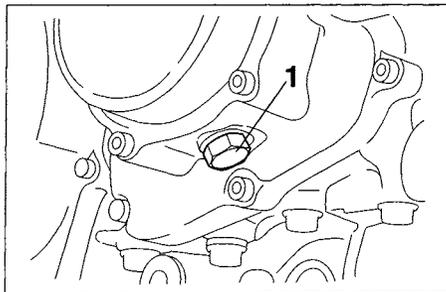
# PERIODIC MAINTENANCE AND MINOR REPAIR



1. Coolant drain cock

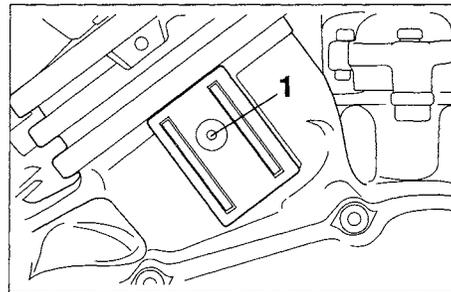
2. Mark

5. Turn the coolant drain cock to the "ON" position.



1. Coolant drain bolt

6. Remove the water pump drain bolt and drain the coolant from the water pump housing.

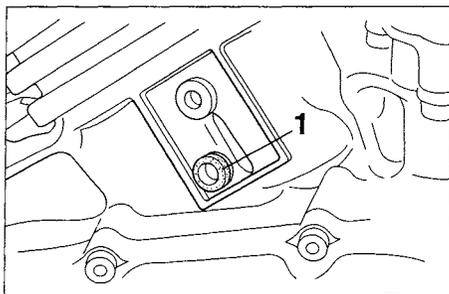


1. Screw

7. Remove the cylinder drain plug covers on the outside of the cylinder blocks by removing the screws.

# PERIODIC MAINTENANCE AND MINOR REPAIR

EC000080



1. Rubber coolant drain plug

8. Remove the rubber coolant drain plugs and drain the coolant from the cylinder bodies.
9. Thoroughly flush the cooling system with clean tap water.
10. Check the drain bolt washer and rubber coolant drain plugs for damage. Replace if damaged.
11. Install the coolant drain bolt and tighten it to the specified torque.

## Tightening torque:

Coolant drain bolt:

43 Nm (4.3 m·kg, 31 ft·lb)

12. Install the rubber coolant drain plugs into each cylinder block. Then install the cylinder drain plug covers.
13. Fill the reservoir tank with coolant up to the maximum level, then install the cap.
14. Pour the recommended coolant into the radiator until it is full.

## Recommended antifreeze:

High quality ethylene glycol antifreeze containing corrosion inhibitors for aluminum engines.

Antifreeze and water mixing ratio:  
1:1

Total amount:

3.05 L (2.68 Imp qt, 3.22 US qt)

Reservoir tank capacity:

0.3 L (0.26 Imp qt, 0.32 US qt)

## CAUTION:

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

15. Install the radiator cap.
16. Run the engine several minutes and recheck the coolant level in the radiator. If the level is low, add more coolant until it reaches the top of the radiator.
17. Turn the coolant drain cock to the "OFF" position.
18. Check for coolant leakage.

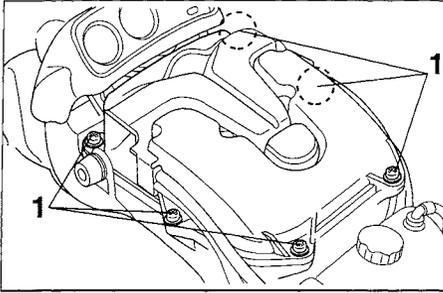
## NOTE:

If any leakage is found, ask a Yamaha dealer to inspect the cooling system.

19. Install the front right side cover and top cover.

# PERIODIC MAINTENANCE AND MINOR REPAIR

EC000082



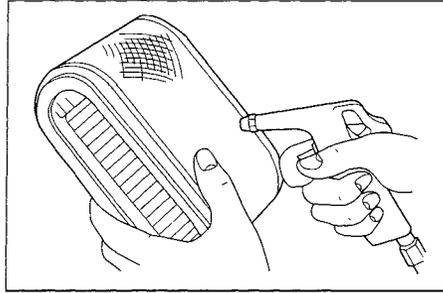
1. Screw (x 6)

EAU01662

## Air filter

The air filter should be cleaned at the specified intervals. It should be cleaned more frequently if you are riding in unusually wet or dusty areas.

1. Remove the top cover. (See page 6-8.)
2. Remove the air filter case fitting screws and the filter case cover.



3. Pull out the air filter.
4. Tap the air filter lightly to remove most of the dust and dirt. Blow out the remaining dirt with compressed air as shown. If the air filter is damaged, replace it.
5. Reassemble by reversing the removal procedure.

### CAUTION:

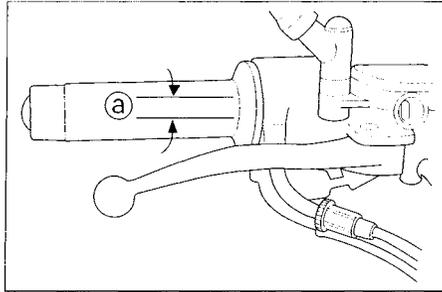
- Make sure the air filter is properly seated in the air filter case.
- The engine should never be run without the air filter installed. Excessive piston and/or cylinder wear may result.

# PERIODIC MAINTENANCE AND MINOR REPAIR

## Carburetor adjustment

EAU00628

The carburetors are important parts of the engine and emission control system. Adjusting should be left to a Yamaha dealer with the professional knowledge, specialized data and equipment to do so properly.



a. Free play

## Throttle cable free play inspection

EAU00635

There should be a free play of 3 ~ 5 mm (0.12 ~ 0.20 in) at the throttle grip. If the free play is incorrect, ask a Yamaha dealer to make this adjustment.

## Valve clearance adjustment

EAU00637

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 Yamaha service technician.

# PERIODIC MAINTENANCE AND MINOR REPAIR

EAU00645

## Tires

To ensure maximum performance, long service, and safe operation, note the following:

### Tire air pressure

Always check and adjust the tire pressure before operating the motorcycle.

EW000082

#### **WARNING**

Tire inflation pressure should be checked and adjusted when the temperature of the tire equals the ambient air temperature. Tire inflation pressure must be adjusted according to total weight of cargo, rider, passenger, and accessories (fairing, saddlebags, etc. if approved for this model), and vehicle speed.

Maximum load*	216 kg (476 lb) VMX12 215 kg (474 lb) VMX12C	
Cold tire pressure	Front	Rear
Up to 90 kg (198 lb) load*	225 kPa (2.25 kgf/cm <sup>2</sup> , 33 psi)	225 kPa (2.25 kgf/cm <sup>2</sup> , 33 psi)
90 kg (198 lb) load ~ Maximum load*	225 kPa (2.25 kgf/cm <sup>2</sup> , 33 psi)	250 kPa (2.50 kgf/cm <sup>2</sup> , 36 psi)
High speed riding	225 kPa (2.25 kgf/cm <sup>2</sup> , 33 psi)	250 kPa (2.50 kgf/cm <sup>2</sup> , 36 psi)

\* Load is the total weight of cargo, rider, passenger, and accessories.

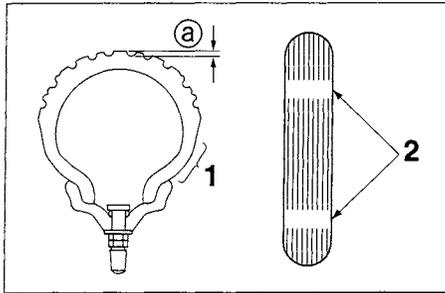
EW000083

#### **WARNING**

Proper loading of your motorcycle is important for several characteristics of your motorcycle, such as handling, braking, performance and safety. Do not carry loosely packed items that can shift. Securely pack your heaviest items close to the center of the motorcycle, and distribute the weight evenly from side to side. Properly adjust the suspension for your load, and check the condition and pressure of your tires. **NEVER OVERLOAD YOUR MOTORCYCLE.** Make sure the total weight of the cargo, rider, passenger, and accessories (fairing, saddlebags, etc. if approved for this model) does not exceed the maximum load of the motorcycle. Operation of an overloaded motorcycle could cause tire damage, an accident, or even injury.

# PERIODIC MAINTENANCE AND MINOR REPAIR

EAU00684



1. Side wall
2. Wear indicator
- a. Tread depth

## Tire inspection

Always check the tires before operating the motorcycle. If a tire tread shows crosswise lines (minimum tread depth), if the tire has a nail or glass fragments in it, or if the side wall is cracked, contact a Yamaha dealer immediately and have the tire replaced.

## FRONT

Manufacturer	Size	Type
Bridgestone	110 / 90-18 61V	G525AW
Dunlop	110 / 90-18 61V	F20

## REAR

Manufacturer	Size	Type
Bridgestone	150 / 90 - 15M/C 74V	G526BW
Dunlop	150 / 90 - 15M/C 74V	K525

Minimum tire tread depth (front and rear)	1.0 mm (0.04 in)
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EAU00682

## **! WARNING**

**It is dangerous to ride with a worn-out tire. When a tire tread begins to show lines, have a Yamaha dealer replace the tire immediately. Brakes, tires and related wheel parts replacement should also be left to a Yamaha dealer.**

## **! WARNING**

This motorcycle is fitted with super high-speed running tires. The following points must be observed in order for you to make fully effective use of these tires.

- Never fail to use the specified tires in tire replacement. Other tires may have a danger of bursting at super high-speeds.
- New tires have a relatively low grip on the road surface until they have been slightly worn. Therefore, approximately 60 mi (100 km) should be traveled at normal speed before any high-speed riding is done.
- Before any high-speed runs, the tires should be warmed-up sufficiently.
- Always inflate to the correct tire pressure according to the operating conditions.

# PERIODIC MAINTENANCE AND MINOR REPAIR

EAU00699

## Cast wheels

To ensure maximum performance, long service, and safe operation, note the following:

- Always inspect the wheels before a ride. Check for cracks, bends or warpage of the wheels. If any abnormal condition exists in a wheel, consult a Yamaha dealer. Do not attempt even small repairs to the wheel. If a wheel is deformed or cracked, it must be replaced.
- Tires and wheels should be balanced whenever either one is changed or replaced. Failure to have a wheel balanced can result in poor performance, adverse handling characteristics and shortened tire life.
- Ride at moderate speeds after changing a tire since the tire surface must first be broken in for it to develop its optimal characteristics.

- After repairing or replacing a tire, tighten the valve stem locknut to the specified torque.

Tightening torque:

Valve stem locknut:

Lower:

1.6 Nm (0.16 m·kg, 1.2 ft·lb)

Upper:

1.6 Nm (0.16 m·kg, 1.2 ft·lb)

EAU00691

## Accessories or replacement parts

EW000098



**This motorcycle is not designed to pull a trailer or to be attached to a sidecar. The accessories or replacement parts you choose for your motorcycle should be designed specifically for it, and they must be securely mounted to maintain the inherent stability of the original design. Genuine Yamaha Parts and Accessories are designed and tested to be compatible with your motorcycle. Please consider Genuine Yamaha Parts and Accessories before making an accessory purchase. Use of non-Yamaha-approved parts or accessories may cause loss of handling stability and riding safety. Since Yamaha cannot control the quality of parts or accessories manufactured by other companies, Yamaha cannot be held liable for**

# PERIODIC MAINTENANCE AND MINOR REPAIR

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EAU00695

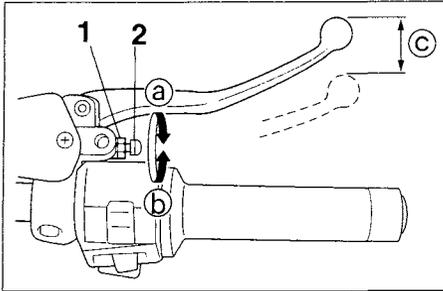
any consequences caused by the use of items which have not been approved by Yamaha.

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## Clutch lever free play adjustment

This motorcycle has a hydraulic clutch. There are no adjustments to perform but the clutch system must be inspected periodically for proper fluid level and leakage. If the control lever free play becomes excessive and the motorcycle creeps or stalls when shifted into gear, or if the clutch slips, causing acceleration to lag behind engine speed, there is probably air in the clutch system and it must be bled out. Ask a Yamaha dealer to do this service.

# PERIODIC MAINTENANCE AND MINOR REPAIR



1. Locknut
2. Adjusting bolt
- c. Free play

EAU00696

## Front brake lever free play adjustment

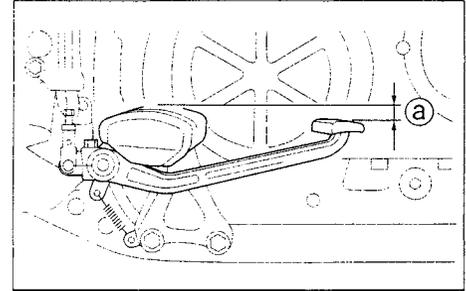
The free play at the front brake lever should be 2 ~ 5 mm (0.08 ~ 0.20 in).

1. Loosen the locknut.
2. Turn the adjusting bolt in direction (a) to increase free play or in direction (b) to decrease free play.
3. After adjusting, tighten the locknut.

EW000099

## ⚠ WARNING

- Check the brake lever free play. Be sure the brake is working properly.
- A soft or spongy feeling in the brake lever can indicate the presence of air in the brake system. This air must be removed by bleeding the brake system before the motorcycle is operated. Air in the system will cause greatly diminished braking capability and can result in loss of control and an accident. **Have a Yamaha dealer inspect and bleed the system if necessary.**



- a. Pedal height

EAU00712

## Rear brake pedal height adjustment

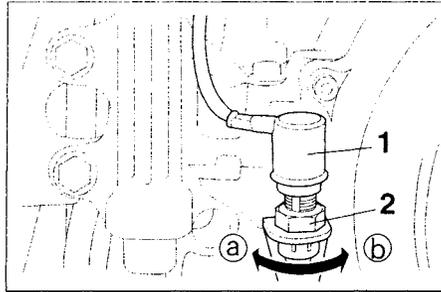
The top of the brake pedal should be positioned 20 mm (0.8 in) below the top of the footrest. If not, ask a Yamaha dealer to adjust it.

# PERIODIC MAINTENANCE AND MINOR REPAIR

EW00G109

## **⚠ WARNING**

A soft or spongy feeling in the brake pedal can indicate the presence of air in the brake system. This air must be removed by bleeding the brake system before the motorcycle is operated. Air in the system will cause greatly diminished braking capability and can result in loss of control and an accident. Have a Yamaha dealer inspect and bleed the system if necessary.

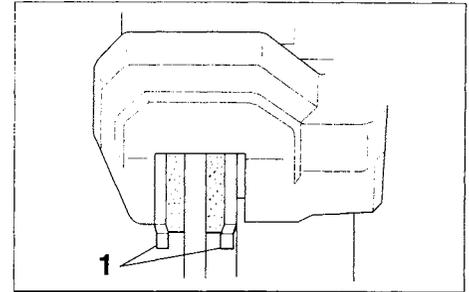


1. Brake light switch
2. Adjusting nut

EAU00713

## **Brake light switch adjustment**

The rear brake light switch is activated by the brake pedal and is properly adjusted when the brake light comes on just before braking takes effect. To adjust the rear brake light switch, hold the switch body so it does not rotate while turning the adjusting nut. Turn the adjusting nut in direction **a** to make the brake light come on earlier. Turn the adjusting nut in direction **b** to make the brake light come on later.



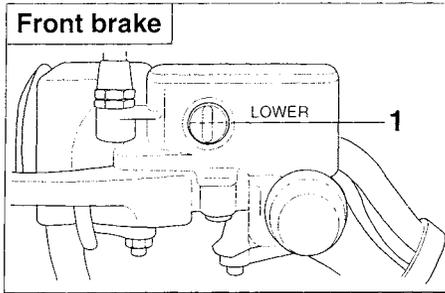
1. Wear indicator (x 2)

EAU00715

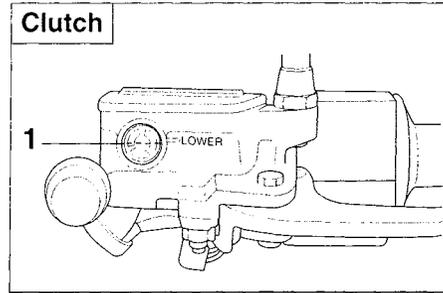
## **Checking the front and rear brake pads**

A wear indicator is provided on each brake. This indicator allows checking of brake pad wear without disassembling the brake. Apply the brake and inspect the wear indicator. If the indicator is **ALMOST** in contact with the disc plate, ask a Yamaha dealer to replace the pads.

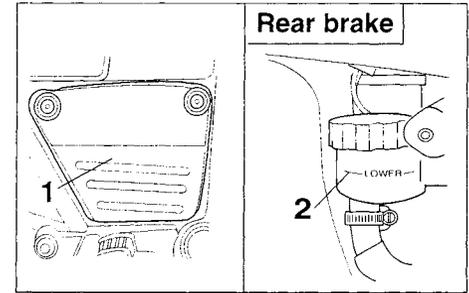
# PERIODIC MAINTENANCE AND MINOR REPAIR



1. Minimum level mark



1. Minimum level mark



1. Rear right side cover  
2. Minimum level mark

## Inspecting the brake fluid level

EAU00735

Insufficient brake fluid may let air enter the brake or clutch system, possibly causing them to become ineffective.

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

Observe these precautions:

- When checking the fluid level, make sure the top of the master cylinder is level by turning the handlebars.

- Use only the designated quality brake fluid. Otherwise, the rubber seals may deteriorate, causing leakage and poor brake or clutch performance.

Recommended brake fluid: DOT 4

### NOTE:

Brake fluid is also used for a hydraulic clutch.

DOT 4 or DOT 3 brake fluid can be used for the clutch system.

- Refill with the same type of brake fluid. Mixing fluids may result in a harmful chemical reaction and lead to poor brake or clutch performance.
- The diaphragm will lose its shape from the negative pressure if the brake fluid level goes down too far. Be sure to put the diaphragm back in its original shape before installing it into the master cylinder.

# PERIODIC MAINTENANCE AND MINOR REPAIR

- Be careful that water does not enter the master cylinder when refilling. Water will significantly lower the boiling point of the fluid and may result in vapor lock.
- Brake fluid may deteriorate painted surfaces or plastic parts. Always clean up spilled fluid immediately.

## NOTE:

As the brake pads wear, it is normal for the brake fluid level to gradually go down.

EAU00742

## Brake fluid replacement

The brake fluid should be replaced only by trained Yamaha service personnel. Have the Yamaha dealer replace the following components during periodic maintenance or when they are damaged or leaking:

- oil seals (every two years)
- brake hoses (every four years)

EAU01541

## Cable inspection and lubrication

EW000111

### **WARNING**

**Damage to the outer housing of cables may allow internal rusting and cause interference with cable movement. Replace damaged cables as soon as possible to prevent unsafe conditions.**

Lubricate the cables and cable ends. If a cable does not operate smoothly, ask a Yamaha dealer to replace it.

Recommended lubricant:

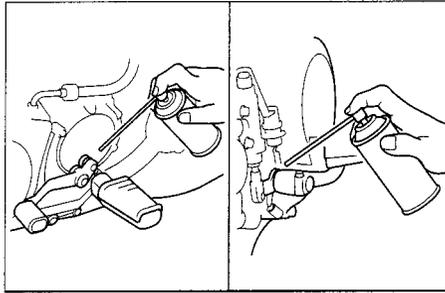
Yamaha Chain and Cable Lube  
or SAE 10W30 motor oil

# PERIODIC MAINTENANCE AND MINOR REPAIR

## Throttle cable and grip lubrication

EAU00773

The throttle twist grip assembly should be greased at the time that the cable is lubricated, since the grip must be removed to get at the end of the throttle cable. After removing the screws, hold the end of the cable up in the air and put in several drops of lubricant. With the throttle grip disassembled, coat the metal surface of the grip assembly with a suitable all-purpose grease.

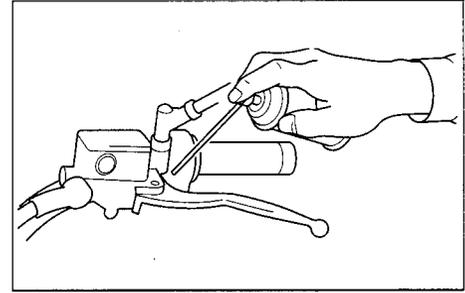


EAU00775

## Brake and shift pedal lubrication

Lubricate the pivoting parts.

Recommended lubricant:  
Yamaha Chain and Cable Lube  
or SAE 10W30 motor oil



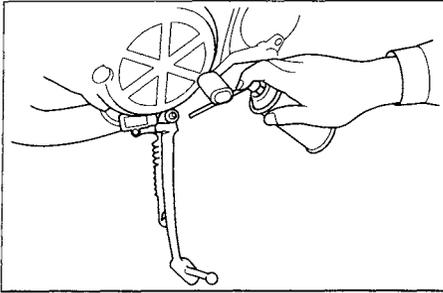
EAU00777

## Brake and clutch lever lubrication

Lubricate the pivoting parts.

Recommended lubricant:  
Yamaha Chain and Cable Lube  
or SAE 10W30 motor oil

# PERIODIC MAINTENANCE AND MINOR REPAIR



EAU00786

## Center and sidestand lubrication

Lubricate the pivoting and mating joints. Check to see that the center and sidestand move up and down smoothly.

Recommended lubricant:  
Yamaha Chain and Cable Lube  
or SAE 10W30 motor oil

EW000114

### **⚠ WARNING**

**If the center and/or sidestand does not move smoothly, consult a Yamaha dealer.**

EAU00791

## Rear suspension lubrication

Lubricate the pivoting parts.

Recommended lubricant:  
Lithium soap base grease

# PERIODIC MAINTENANCE AND MINOR REPAIR

## Front fork inspection

### Visual check

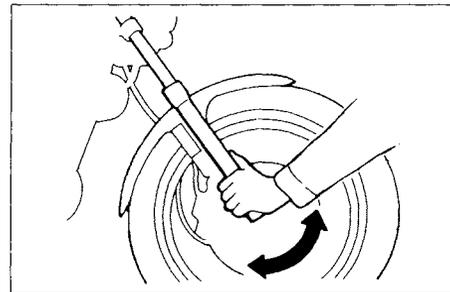
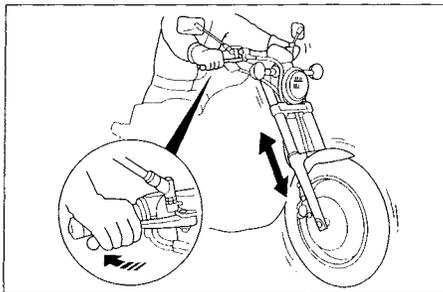
EAU02939

EW000115

#### **⚠ WARNING**

**Securely support the motorcycle so there is no danger of it falling over.**

Check for scratches or damage on the inner tube and excessive oil leakage from the front fork.



EAU00794

### Operation check

1. Place the motorcycle on a level place.
2. Hold the motorcycle in an upright position and apply the front brake.
3. Push down hard on the handlebars several times and check if the fork rebounds smoothly.

EC000098

#### **CAUTION:**

**If any damage or unsmooth movement is found with the front fork, consult a Yamaha dealer.**

### Steering inspection

Periodically inspect the condition of the steering. Worn out or loose steering bearings may be dangerous. Place a stand under the engine to raise the front wheel off the ground. Hold the lower end of the front forks and try to move them forward and backward. If any free play can be felt, ask a Yamaha dealer to inspect and adjust the steering. Inspection is easier if the front wheel is removed.

EW000115

#### **⚠ WARNING**

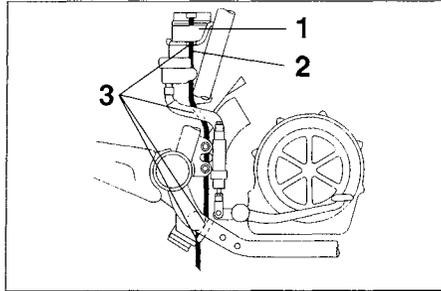
**Securely support the motorcycle so there is no danger of it falling over.**

# PERIODIC MAINTENANCE AND MINOR REPAIR

EAU01144

## Wheel bearings

If there is play in the front or rear wheel hub or if the wheel does not turn smoothly, have a Yamaha dealer inspect the wheel bearings.



1. Battery
2. Battery breather hose
3. Pass through the cable guides

EAU01663

## Battery

Check the level of the battery electrolyte and make sure that the terminals are tight. Fill with distilled water if the electrolyte level is low.

EC000099

### CAUTION:

When inspecting the battery, be sure the breather hose is routed correctly. If the breather hose is positioned in such a way as to cause battery electrolyte or gas to exit onto the frame, structural and cosmetic damage to the motorcycle can occur.

# PERIODIC MAINTENANCE AND MINOR REPAIR

EW000116

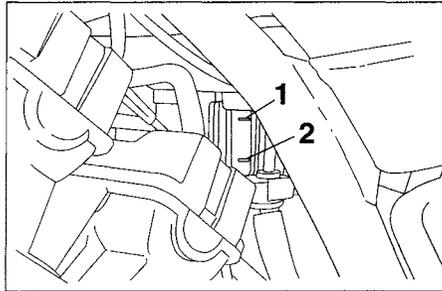
## **⚠ WARNING**

Battery electrolyte is poisonous and dangerous, causing severe burns, etc. It contains sulfuric acid. Avoid contact with skin, eyes or clothing.

### ANTIDOTE:

- **EXTERNAL:** Flush with water.
- **INTERNAL:** Drink large quantities of water or milk. Follow with milk of magnesia, beaten egg, or vegetable oil. Call a physician immediately.
- **EYES:** Flush with water for 15 minutes and get prompt medical attention.

Batteries produce explosive gases. Keep sparks, flame, cigarettes etc., away. Ventilate when charging or using in an enclosed space. Always shield your eyes when working near batteries. **KEEP OUT OF REACH OF CHILDREN.**



1. Maximum level mark
2. Minimum level mark

### Replenishing the battery fluid

A poorly maintained battery will corrode and discharge quickly. The battery fluid should be checked at least once a month. The level should be between the minimum and maximum marks. Use only distilled water if refilling is necessary.

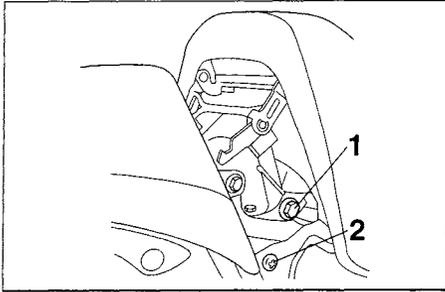
EC000100

## **CAUTION:**

Normal tap water contains minerals which are harmful to a battery; therefore, refill only with distilled water.

The level should be between the maximum and minimum marks. Use only distilled water if refilling is necessary.

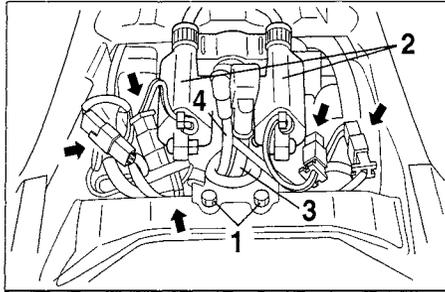
## PERIODIC MAINTENANCE AND MINOR REPAIR



1. Bolt (× 2)
2. Screw (× 2)

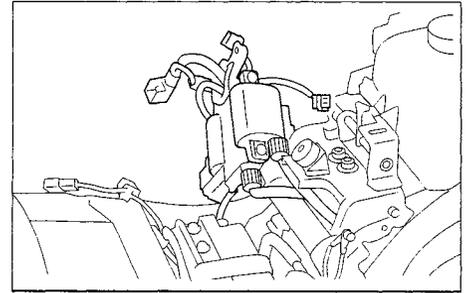
### To fill the battery with fluid

1. Remove the rider seat. (See page 3-12 for removal and installation procedures.)



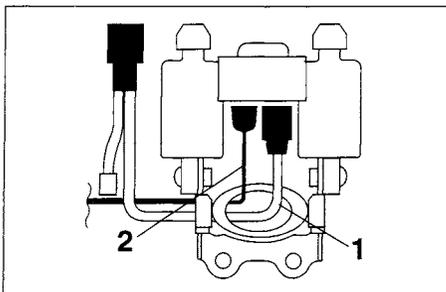
1. Ignition coil holding bolt (× 2)
2. Ignition coil assembly
3. Battery positive lead (red)
4. Starter motor lead (black)

2. Disconnect the leads shown and remove the ignition coil holding bolts.



3. Position the ignition coil so that it's not in the way and fill the battery with fluid.
4. Reinstall the ignition coil assembly and reconnect the leads.
5. Reinstall the rider seat.

# PERIODIC MAINTENANCE AND MINOR REPAIR



1. Battery positive lead (red)
2. Starter motor lead (black)

EW000118

## **! WARNING**

Pass the battery positive lead and starter motor lead through the bracket hole, as shown. A short circuit could result from improper routing. This could cause the engine to stop running and lights to fail, which could result in an accident.

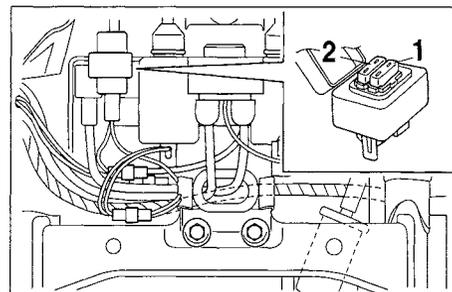
## Storage

When the motorcycle will not be used for a month or longer, remove the battery, fully charge it and store it in a cool, dry place.

EC000115

## CAUTION:

- Completely recharge the battery before storing. Storing a discharged battery can cause permanent battery damage.
- If the battery will be stored for longer than two months, check the specific gravity of the fluid at least once a month and recharge the battery when it is too low.
- Always make sure the connections are correct when reinstalling the battery. Make sure the breather hose is properly connected and is not damaged or obstructed.



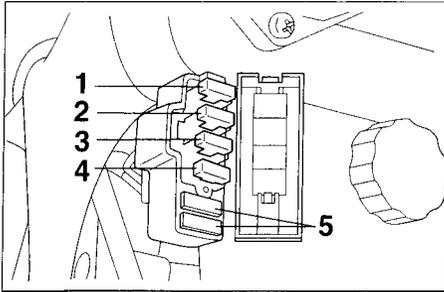
1. Main fuse
2. Spare fuse

EAU01664

## Fuse replacement

There are two fuse boxes on this motorcycle. The main fuse box is located under the rider seat. The sub fuse box is located under the top cover. If any fuse is blown, turn off the ignition switch and the switch of the circuit in question. Install a new fuse of proper amperage. Turn on the switches and see if the electrical device operates. If the fuse immediately blows again, consult a Yamaha dealer.

# PERIODIC MAINTENANCE AND MINOR REPAIR



1. Headlight fuse
2. Signaling system fuse
3. Ignition fuse
4. Radiator fan fuse
5. Spare fuse (× 2)

EC000103

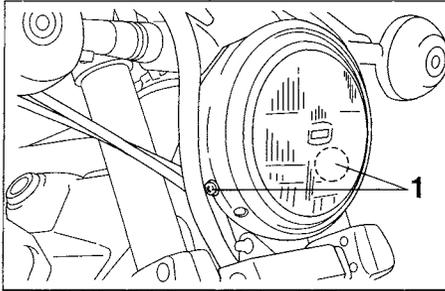
## CAUTION:

**Do not use fuses of higher amperage rating than those recommended. Substitution of a fuse of improper rating can cause extensive electrical system damage and possibly a fire.**

### Specified fuses:

Main fuse:	30 A
Headlight fuse:	15 A
Signaling system fuse:	10 A
Radiator fan fuse:	10 A
Ignition fuse:	10 A

# PERIODIC MAINTENANCE AND MINOR REPAIR



1. Screw (× 2)

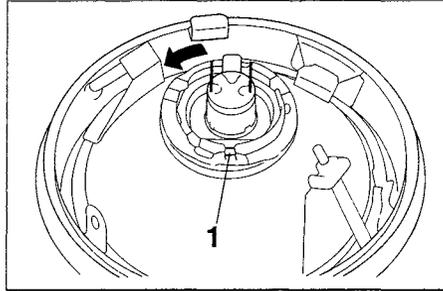
EAU03003

## Headlight bulb replacement

This motorcycle is equipped with a quartz bulb headlight.

If the headlight bulb burns out, replace the bulb as follows:

1. Remove the headlight unit screws.
2. Remove the connector, the headlight unit and then the bulb holder cover.



1. Bulb holder

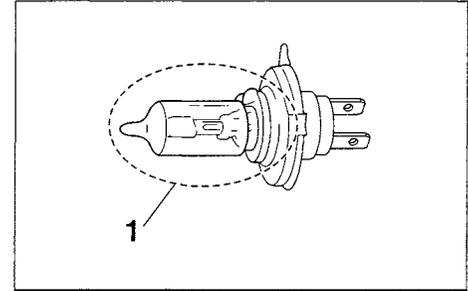
3. Turn the bulb holder counterclockwise to remove it and remove the defective bulb.

EWA00023



**Keep flammable products and your hands away from the bulb while it is on, as it is hot. Do not touch the bulb until it cools down.**

4. Put a new bulb into position and secure it in place with the bulb holder.



1. Don't touch

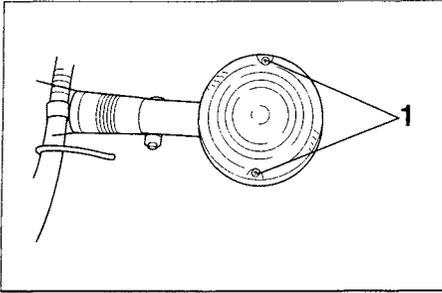
ECA00040

### **CAUTION:**

**Avoid touching the glass part of the bulb. Keep it free from oil; otherwise, the transparency of the glass, life of the bulb, and luminous flux will be adversely affected. If oil gets on the bulb, thoroughly clean it with a cloth moistened with alcohol or lacquer thinner.**

5. Install the bulb holder cover, connector and headlight unit. Ask a Yamaha dealer to adjust the headlight beam that adjustment if necessary.

# PERIODIC MAINTENANCE AND MINOR REPAIR

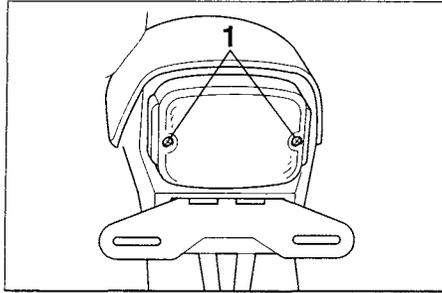


1. Screw (x 2)

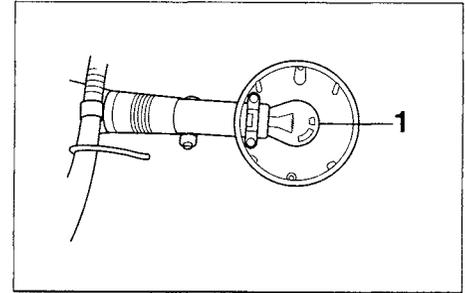
EAU00855

## Turn signal and taillight bulb replacement

1. Remove the screws and the lens.



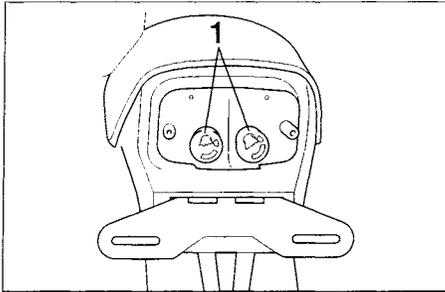
1. Screw (x 2)



1. Bulb

2. Push the bulb inward and turn it counterclockwise.
3. Place a new bulb in the socket. Push the bulb inward and turn it clockwise until it engages into the socket.

# PERIODIC MAINTENANCE AND MINOR REPAIR

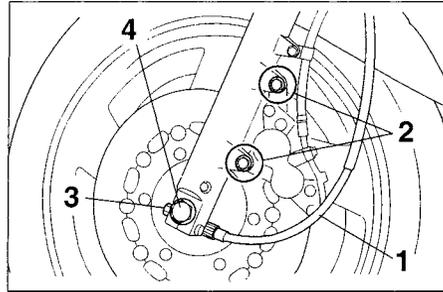


1. Bulb (× 2)
4. Install the lens and the screws.

EC000108

## CAUTION:

Do not over-tighten the screws as the lens may break.



1. Speedometer cable
2. Caliper bolt (× 2)
3. Pinch bolt
4. Wheel axle

EAU00870

## Front wheel removal

EW000122

### WARNING

- It is advisable to have a Yamaha dealer service the wheel.
- Securely support the motorcycle so there is no danger of it falling over.

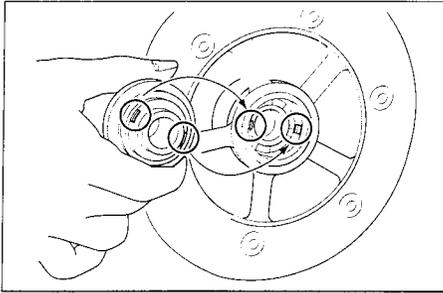
1. Place the motorcycle on the centerstand.
2. Remove the speedometer cable from the front wheel side.

3. Remove the caliper bolts and then the calipers.
4. Loosen the pinch bolt and wheel axle.
5. Elevate the front wheel by placing a suitable stand under the engine.
6. Remove the wheel axle. Make sure the motorcycle is properly supported.

### NOTE:

Do not depress the brake lever when the disc and caliper are separated.

# PERIODIC MAINTENANCE AND MINOR REPAIR



EAU01469

## Front wheel installation

1. Install the speedometer gear unit into the wheel hub. Make sure the wheel hub and the speedometer gear unit are installed with the projections meshed into the slots.
2. Lift up the wheel between the front fork legs. Make sure the slot in the speedometer gear unit fits over the stopper on the front fork outer tube.
3. Install the wheel axle and let the motorcycle down.
4. Install the calipers and caliper bolts. Make sure there is enough gap between the brake pads before installing the calipers onto the brake discs.
5. Push down hard on the handlebars several times to check for proper fork operation.
6. Tighten the wheel axle, pinch bolt and caliper bolts to the specified torque.
7. Install the speedometer cable.

### Tightening torque:

Wheel axle:

58 Nm (5.8 m·kg, 42 ft·lb)

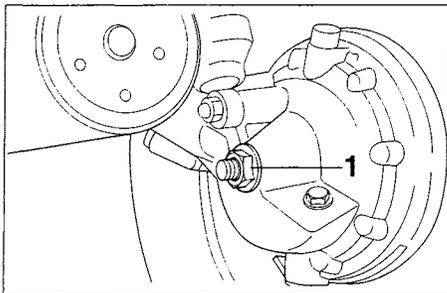
Pinch bolt:

20 Nm (2.0 m·kg, 14 ft·lb)

Caliper bolt:

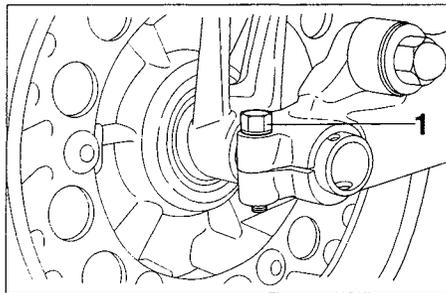
40 Nm (4.0 m·kg, 29 ft·lb)

# PERIODIC MAINTENANCE AND MINOR REPAIR

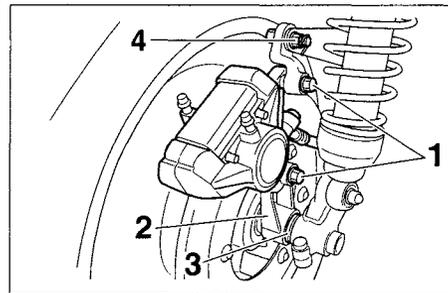


1. Axle nut

EAU01634



1. Pinch bolt



1. Brake caliper bolt (× 2)

2. Caliper bracket

3. Washer

4. Brake torque rod bolt

## Rear wheel removal

EW000122

### **! WARNING**

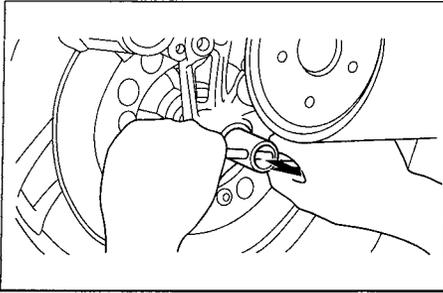
- It is advisable to have a Yamaha dealer service the wheel.
- Securely support the motorcycle so there is no danger of it falling over.

1. Loosen the wheel axle nut and pinch bolt.
2. Place the motorcycle on the centerstand.

3. Remove the caliper bolts and wheel axle nut.
4. Remove the brake torque rod cotter pin, nut and bolt.

## PERIODIC MAINTENANCE AND MINOR REPAIR

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5. While supporting the brake caliper, pull out the wheel axle.
6. Remove the caliper bracket and washer.
7. Move the wheel to the right to separate it from the final gear case, then remove the wheel.

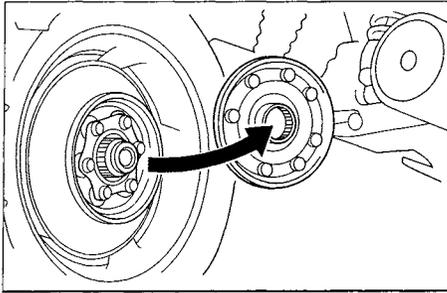
**NOTE:** \_\_\_\_\_

Do not depress the brake pedal when the disc and caliper are separated.

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# PERIODIC MAINTENANCE AND MINOR REPAIR

EAU01008



EAU01635

## Rear wheel installation

1. Apply a light coating of lithium soap base grease to the final gear case splines and the rear wheel hub splines.
2. Install the wheel, caliper bracket, washer and the wheel axle.
3. Install the caliper and caliper bolts. Make sure there is enough gap between the brake pads before installing the caliper onto the brake disc.
4. Install the brake torque rod bolt and nut.
5. Install the pinch bolt.

6. Take the motorcycle off the centerstand.
7. Tighten the axle nut, caliper bolts, brake torque rod nut, and then the pinch bolt to the specified torques.

### Tightening torque:

Axle nut:

150 Nm (15.0 m·kg, 108 ft·lb)

Caliper bolt:

40 Nm (4.0 m·kg, 29 ft·lb)

Brake torque rod nut:

48 Nm (4.8 m·kg, 35 ft·lb)

Pinch bolt:

16 Nm (1.6 m·kg, 11 ft·lb)

8. Install the brake torque rod cotter pin.

EW000124



**Always use a new cotter pin.**

## Troubleshooting

Although Yamaha motorcycles receive a rigid 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 motorcycle requires any repair, bring it to a Yamaha dealer. The skilled technicians at a Yamaha dealership have the tools, experience, and know-how to properly service your motorcycle. Use only genuine Yamaha parts on your motorcycle. Imitation parts may look like Yamaha parts, but they are often inferior. Consequently, they have a shorter service life and can lead to expensive repair bills.

# PERIODIC MAINTENANCE AND MINOR REPAIR

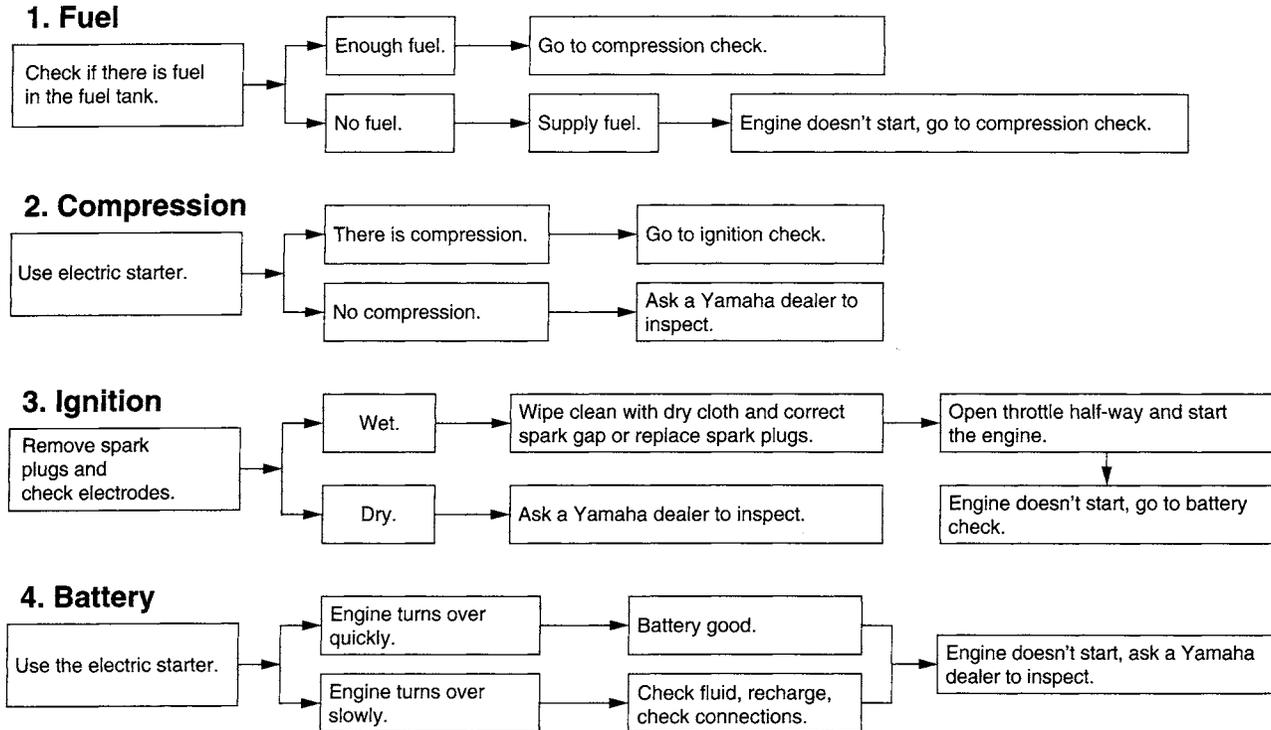
EAU01596

## Troubleshooting chart

EW000125

### **⚠ WARNING**

**Never check the fuel system while smoking or in the vicinity of an open flame.**



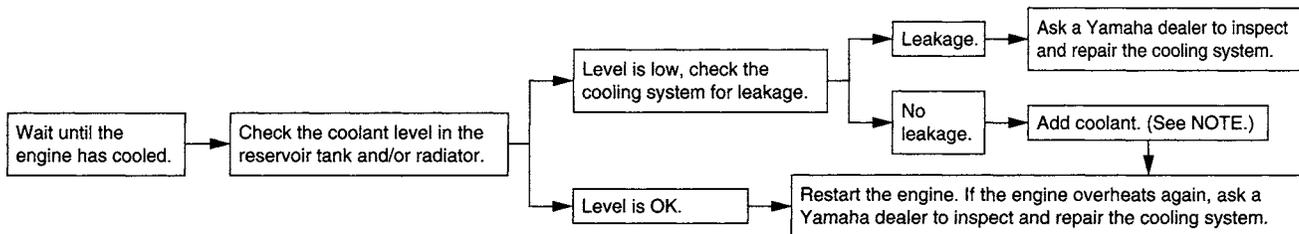
# PERIODIC MAINTENANCE AND MINOR REPAIR

## 5. Engine overheating

EW000070

### **⚠ WARNING**

Do not remove the radiator cap when the engine and radiator are hot. Scalding hot fluid and steam may be blown out under pressure, which could cause serious injury. Open the radiator cap as follows. Wait until the engine has cooled. Remove the radiator cap stopper by removing the screw. Place a thick rag like a towel over the radiator cap and slowly rotate the cap counterclockwise to the detent. This procedure allows any residual pressure to escape. When the hissing sound has stopped, press down on the cap while turning counterclockwise and remove it.



### **NOTE:**

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

## CLEANING AND STORAGE

Cleaning .....	7-1
Storage.....	7-2

EAU01330

EC000111

## A. CLEANING

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

ECA00002

### CAUTION:

- **Improper cleaning can damage the cowlings, panels and other plastic parts. Use only a soft, clean cloth or sponge with mild detergent and water to clean plastic.**
- **Do not use any harsh chemical products on plastic parts. Be sure to avoid using cloths or sponges which have been in contact with strong or abrasive cleaning products, solvent or thinner, fuel (gasoline), rust removers or inhibitors, brake fluid, antifreeze or electrolyte.**

1. Before cleaning the motorcycle:
  - a. Block off the end of the exhaust pipes to prevent water entry; a plastic bag and strong rubber band may be used.
  - b. Make sure the spark plugs 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 wheel axles.
3. Rinse the dirt and degreaser off with a garden hose. Use only enough pressure to do the job.

### CAUTION:

**Excessive hose pressure may cause water seepage and deterioration of wheel bearings, front fork, brakes, transmission seals and electrical parts.**

**Many expensive repair bills have resulted from improper high pressure detergent applications such as those available in coin-operated car washers.**

4. After riding on salted roads, wash the motorcycle with cold water immediately. Do not use warm water as it increases the chemical reaction of the salt.
5. 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.

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# CLEANING AND STORAGE

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6. Rinse the motorcycle off immediately with clean water and dry all surfaces with a chamois, clean towel or soft absorbent cloth.
7. Clean the seat with a vinyl upholstery cleaner to keep the cover pliable and glossy.
8. Automotive-type wax may be applied to all painted and chrome-plated surfaces. Avoid combination cleaner-waxes. Many contain abrasives which may mar 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 motorcycle will require some preventive procedures to guard against deterioration. After thoroughly cleaning the motorcycle, prepare for storage as follows:

1. Fill the fuel tank with fuel and add fuel stabilizer (if available).
2. Remove the spark plugs, pour about one tablespoon of engine oil in each spark plug hole and reinstall the spark plugs. Turn the engine over several times (ground spark plug leads) to coat the cylinder walls with oil.

EAU01026

EW000127

### **WARNING**

**When using the starter motor to crank the engine, remove the spark plug wires, and ground them to prevent sparking.**

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3. Lubricate all control cables.
4. Block up the frame to raise both wheels off the ground.

5. Tie a plastic bag over the exhaust pipe outlets 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 cover.
7. Remove the battery and fully charge it. Store it in a cool, dry place and completely 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)). See page 6-35 for battery storage precautions.

### **NOTE:**

Make any necessary repairs before storing the motorcycle.

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Specifications ..... 8-1

# SPECIFICATIONS

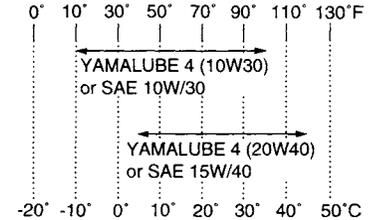
EAU01038

## Specifications

<b>Model</b>	<b>VMX12/VMX12C</b>
<b>Dimensions</b>	
Overall length	2,300 mm (90.6 in)
Overall width	795 mm (31.3 in)
Overall height	1,160 mm (45.7 in)
Seat height	765 mm (30.1 in)
Wheelbase	1,590 mm (62.6 in)
Ground clearance	145 mm (5.7 in)
Minimum turning radius	2,900 mm (114.2 in)
<b>Basic weight (with oil and full fuel tank)</b>	
VMX12	283 kg (624 lb)
VMX12C	284 kg (626 lb)
<b>Engine</b>	
Engine type	Liquid-cooled 4-stroke, DOHC
Cylinder arrangement	V type 4-cylinder
Displacement	1,198 cm <sup>3</sup>
Bore × Stroke	76 × 66 mm (3.0 × 2.6 in)
Compression ratio	10.5:1
Starting system	Electric starter
Lubrication system	Wet sump

## Engine oil

### Type



Recommended engine oil classification

API Service SE, SF, SG type or higher

### CAUTION:

**Be sure to use motor oils that do not contain anti-friction modifiers. Passenger car motor oils (often labeled "Energy Conserving") contain anti-friction additives which will cause clutch and/or starter clutch slippage, resulting in reduced component life and poor engine performance.**

### Quantity

Periodic oil change	3.2 L (2.8 Imp qt, 3.4 US qt)
With oil filter replacement	3.4 L (3.0 Imp qt, 3.6 US qt)
Total amount	4.0 L (3.5 Imp qt, 4.2 US qt)

# SPECIFICATIONS

## Final gear oil

Type	SAE80API "GL-4" Hypoid gear oil
Final gear oil capacity	0.2 L (0.18 Imp qt, 0.21 US qt)

## Radiator

Quantity (including all routes)	3.05 L (2.68 Imp qt, 3.22 US qt)
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## Air filter

Dry type element

## Fuel

Type	UNLEADED FUEL
Fuel tank capacity	15 L (3.3 Imp gal, 4.0 US gal)
Fuel reserve amount	3 L (0.7 Imp gal, 0.8 US gal)

## Carburetor

Type × quantity	BDS35 × 4
Manufacturer	MIKUNI

## Spark plug

Type/Manufacturer	DPR8EA-9/NGK or X24EPR-U9/DENSO
Gap	0.8 ~ 0.9 mm (0.031 ~ 0.035 in)

## Clutch type

Wet, multiple-disc

## Transmission

Primary reduction system	Spur gear
Primary reduction ratio	1.775
Secondary reduction system	Shaft drive
Secondary reduction ratio	2.851

## Transmission type

Constant mesh 5-speed

## Operation

Left foot operation

## Gear ratio

1st	2.529
2nd	1.772
3rd	1.347
4th	1.076
5th	0.928

## Chassis

Frame type	Double cradle
Caster angle	29°
Trail	119 mm (4.69 in)

## Tires

### Front

Type	Tubeless
Size	110/90-18 61V
Manufacturer/model	Bridgestone/G525AW Dunlop/F20

### Rear

Type	Tubeless
Size	150/90-15M/C 74V
Manufacturer/model	Bridgestone/G526BW Dunlop/K525

# SPECIFICATIONS

## Maximum load\*

VMX12 216 kg (476 lb)

VMX12C 215 kg (474 lb)

## Air pressure (cold tire)

### Up to 90 kg (198 lb) load\*

Front 225 kPa; 2.25 kgf/cm<sup>2</sup>; 33 psi

Rear 225 kPa; 2.25 kgf/cm<sup>2</sup>; 33 psi

### 90 kg (198 lb) load ~ maximum load\*

Front 225 kPa; 2.25 kgf/cm<sup>2</sup>; 33 psi

Rear 250 kPa; 2.50 kgf/cm<sup>2</sup>; 36 psi

### High speed riding

Front 225 kPa; 2.25 kgf/cm<sup>2</sup>; 33 psi

Rear 250 kPa; 2.50 kgf/cm<sup>2</sup>; 36 psi

\* Load is total weight of cargo, rider, passenger and accessories.

## Wheels

### Front

Type Cast

Size 18 × MT 2.15

### Rear

Type Cast

Size 15 M/C × MT 3.50

## Brakes

### Front

Type Dual disc brake

Operation Right hand operation

Fluid DOT4

### Rear

Type Single disc brake

Operation Right foot operation

Fluid DOT4

## Suspension

### Front

Type Telescopic fork

### Rear

Type Swingarm

## Shock absorbers

### Front

Coil-air spring / oil damper

### Rear

Coil spring / oil damper

## Wheel travel

### Front

140 mm (5.5 in)

### Rear

100 mm (3.9 in)

# SPECIFICATIONS

## Electrical system

Ignition system	T.C.I. (digital)
Charging system	
Type	A.C. magneto
Standard output	14 V, 22.5 A @ 5,000 r/min
Battery	
Type	YB16AL-A2
Voltage, capacity	12 V, 16 AH

**Headlight type** Quartz bulb (halogen)

## Bulb voltage, wattage × quantity

Headlight	12 V, 60/55 W × 1
Tail/brake light	12 V, 8/27 W × 2
Front turn signal/position light	12 V, 27/8 W × 2
Rear turn signal light	12 V, 27 W × 2
Meter light	14 V, 3 W × 4
Neutral indicator light	14 V, 3 W × 1
Turn indicator light	14 V, 3 W × 1
Fuel indicator light	14 V, 3 W × 1
High beam indicator light	14 V, 3 W × 1
Oil level indicator light	14 V, 3 W × 1

## Fuses

Main fuse	30 A
Headlight fuse	15 A
Signaling system fuse	10 A
Ignition fuse	10 A
Radiator fan fuse	10 A



Identification number records.....	9-1
Key identification number.....	9-1
Vehicle identification number.....	9-1
Model label.....	9-2
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Motorcycle noise regulation.....	9-4
Maintenance record.....	9-5
Street and enduro motorcycle limited warranty.....	9-7
Yamaha extended service.....	9-9

# CONSUMER INFORMATION

EAU01039

EAU02944

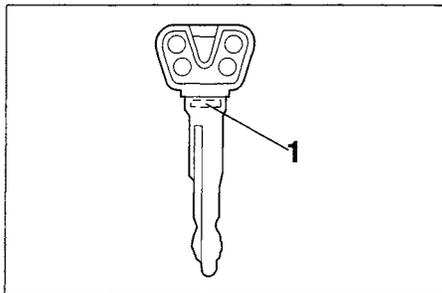
## Identification number records

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

### 1. KEY IDENTIFICATION NUMBER:

### 2. VEHICLE IDENTIFICATION NUMBER:

### 3. MODEL LABEL INFORMATION:

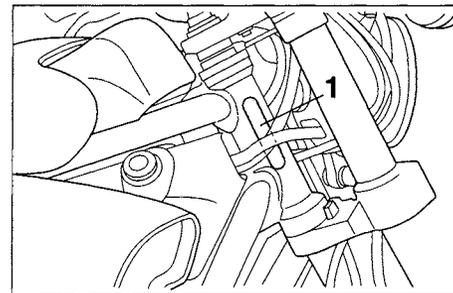


1. Key identification number

EAU01042

## Key identification number

The key identification number is stamped on the key. Record this number in the space provided and use it for reference when obtaining a new key.



1. Vehicle identification number

EAU01043

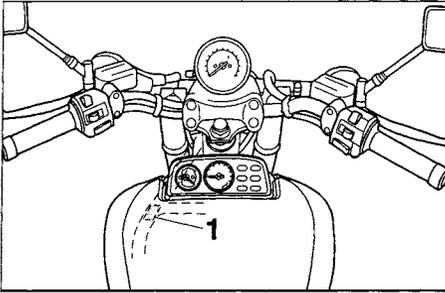
## Vehicle identification number

The vehicle identification number is stamped into the steering head pipe. Record this number in the space provided.

### NOTE: \_\_\_\_\_

The vehicle identification number is used to identify your motorcycle and may be used to register your motorcycle with the licensing authority in your state.

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1. Model label

EAU01049

## **Model label**

The model label is affixed to the location shown in the figure. Record the information on this label in the space provided. This information will be needed to order spare parts from your Yamaha dealer.

# CONSUMER INFORMATION

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EAU01051

## **Reporting safety defects**

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying YAMAHA MOTOR CORP. U.S.A.. If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or YAMAHA MOTOR CORP. U.S.A..

To contact NHTSA, you may either call the Auto Safety Hotline toll-free at 1-800-424-9393 (or 366-0123 in Washington, D.C. area) or write to: NHTSA, U.S. Department of Transportation, Washington, D.C. 20590. You can also obtain other information about motor vehicle safety from the Hotline.

## Motorcycle noise regulation

### TAMPERING WITH NOISE CONTROL SYSTEM PROHIBITED:

Federal law prohibits the following acts or the causing thereof: (1) The removal or rendering inoperative by any person other than for purposes of maintenance, repair, or replacement of any device or element of design incorporated into any new vehicle for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use or (2) the use of the vehicle after such device or element of design has been removed or rendered inoperative by any person.

“AMONG THOSE ACTS PRESUMED TO CONSTITUTE TAMPERING ARE THE ACTS LISTED BELOW”.

These acts include tampering with the following systems; i.e., modification, removal, etc.

Exhaust system	Muffler Exhaust pipe Silencer
Intake system	Air cleaner case Air cleaner element Intake duct

# CONSUMER INFORMATION

EAU01874

## MAINTENANCE RECORD

Copies of work orders and/or receipts for parts you purchase and install will be required to document that maintenance has been completed in accordance with the emission 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 ADDRESS	REMARKS
600 mi (1,000km)or 1 mo.				
4,000 mi (7,000km)or 6 mos.				
8,000 mi (13,000km)or 12 mos.				
12,000 mi (19,000km)or 18 mos.				
16,000 mi (25,000km)or 24 mos.				
20,000 mi (31,000km)or 30 mos.				
24,000 mi (37,000km)or 36 mos.				

# CONSUMER INFORMATION

MAINTENANCE INTERVAL	DATE OF SERVICE	MILEAGE	SERVICING DEALER NAME AND ADDRESS	REMARKS
28,000 mi (43,000km)or 42 mos.				
32,000 mi (49,000km)or 48 mos.				
36,000 mi (55,000km)or 54 mos.				
40,000 mi (61,000km)or 60 mos.				

# CONSUMER INFORMATION

EAU02918

## YAMAHA MOTOR CORPORATION, U.S.A. STREET AND ENDURO MOTORCYCLE LIMITED WARRANTY

Yamaha Motor Corporation, U.S.A. hereby warrants each new model Yamaha motorcycle will be free from defects in material and workmanship for the period of time stated herein, subject to certain stated limitations.

**THE PERIOD OF WARRANTY** for Yamaha motorcycles originally equipped with headlight, stoplight, and turn signals shall be one (1) year from the date of purchase, with no mileage limitation.

**MODELS EXCLUDED FROM WARRANTY** include those used for non-Yamaha-authorized renting, leasing, or other commercial purposes, and TZ models.

**DURING THE PERIOD OF WARRANTY** any authorized Yamaha motorcycle dealer will, free of charge, repair or replace any part adjudged defective by Yamaha due to faulty workmanship or material from the factory. Parts used in warranty repairs will be warranted for the balance of the product's warranty period. All parts replaced under warranty become property of Yamaha Motor Corp. U.S.A.

**GENERAL EXCLUSIONS** from this warranty shall include any failures caused by:

- a. Competition or racing use.
- b. Installation of parts or accessories that are not qualitatively equivalent to genuine Yamaha parts.
- c. Abnormal strain, neglect, or abuse.
- d. Lack of proper maintenance.
- e. Accident or collision damage.
- f. Modification to original parts.

**SPECIFIC EXCLUSIONS** from this warranty shall include parts replaced due to normal wear or routine maintenance.

**THE CUSTOMER'S RESPONSIBILITY** under this warranty shall be to:

1. Operate and maintain the motorcycle as specified in the appropriate Owner's Manual, and
2. Give notice to an authorized Yamaha motorcycle dealer of any and all apparent defects within ten (10) days after discovery, and make the machine available at that time for inspection and repairs at such dealer's place of business.

**WARRANTY TRANSFER:** To transfer the warranty from the original purchaser to any subsequent purchaser, it is imperative that the machine be inspected and registered for warranty by an authorized Yamaha motorcycle dealer. In order for this warranty to remain in effect, this inspection and registration must take place within ten (10) days after transfer. An inspection and registration fee will be charged for this service.

### EMISSIONS CONTROL SYSTEM WARRANTY

Yamaha Motor Corporation, U.S.A. also warrants to the ultimate purchaser and each subsequent purchaser of each Yamaha motorcycle covered by this warranty with a displacement of 50cc or greater, that the vehicle is designed, built, and equipped so as to conform at the time of sale with all U.S. emissions standards applicable at the time of manufacture and that it is free from defects in materials and workmanship which would cause it not to meet these standards within the periods listed immediately below. Failure other than those resulting from defects in material or workmanship which arise solely as a result of owner abuse and / or lack of proper maintenance are not covered by this warranty.

ENGINE DISPLACEMENT	PERIOD
50cc to 169cc	12,000 km (7,465 miles) or five years, whichever occurs first
170cc to 279cc	18,000 km (11,185 miles) or five years, whichever occurs first
280cc or over	30,000 km (18,641 miles) or five years, whichever occurs first

**YAMAHA MOTOR CORPORATION, U.S.A. MAKES NO OTHER WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED. ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WHICH EXCEED THE OBLIGATIONS AND TIME LIMITS STATED IN THIS WARRANTY ARE HEREBY DISCLAIMED BY YAMAHA MOTOR CORPORATION, U.S.A. AND EXCLUDED FROM THIS WARRANTY.**

**SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. ALSO EXCLUDED FROM THIS WARRANTY ARE ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES INCLUDING LOSS OF USE. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE EXCLUSION MAY NOT APPLY TO YOU.**

**THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.**

YAMAHA MOTOR CORPORATION, U.S.A.  
P.O. Box 6555  
Cypress, California 90630

# CONSUMER INFORMATION

## WARRANTY QUESTIONS AND ANSWERS

- Q. What costs are my responsibility during the warranty period?
- A. The customer's responsibility includes all costs of normal maintenance services, non-warranty repairs, accident and collision damages, and oil, oil filters, air filters, spark plugs, and brake shoes.
- Q. What are some examples of "abnormal" strain, neglect, or abuse?
- A. These terms are general and overlap each other in areas. Specific examples include: Running the machine out of oil, sustained high-rpm, full-throttle, operating the machine with a broken or damaged part which causes another part to fail, damage or failure due to improper or careless transportation and or tie down. If you have any specific questions on operation or maintenance, please contact your dealer for advice.
- Q. Does the warranty cover incidental costs such as towing or transportation due to a failure?
- A. No. The warranty is limited to repair of the machine itself.
- Q. May I perform any or all of the recommended maintenance shown in the Owner's Manual instead of having the dealer do them?
- A. Yes, if you are a qualified mechanic and follow the procedures specified in the Owner's and Service Manual. We do recommend, however, that items requiring special tools or equipment be done by Yamaha Motorcycle dealer.
- Q. Will the warranty be void or cancelled if I do not operate or maintain my new motorcycle exactly as specified in the Owner's Manual?
- A. No. The warranty on a new motorcycle cannot be "voided" or "cancelled." **However, if a particular failure is caused by operation or maintenance other than as shown in the Owner's Manual, that failure may not be covered under warranty.**
- Q. What responsibility does my dealer have under this warranty?
- A. Each Yamaha Motorcycle dealer is expected to:
1. Completely set up every new machine before sale.
  2. Explain the operation, maintenance, and warranty requirements to your satisfaction at the time of sale, and upon your request at any later date.
  3. Each Yamaha Motorcycle dealer is held responsible for his setup, service and warranty repair work.
- Q. Is the warranty transferable to second owners?
- A. Yes. The remainder of the existing warranty can be transferred upon request. The unit has to be inspected and re-registered by an authorized Yamaha Motorcycle dealer for the policy to remain effective.

## CUSTOMER SERVICE

If your machine requires warranty service, you must take it to any authorized Yamaha Motorcycle dealer within the continental United States. Be sure to bring your warranty registration card or other valid proof of the original date of purchase. If a question or problem arises regarding warranty, first contact the owner of the dealership. Since all warranty matters are handled at the dealer level, this person is in the best position to help you. If you are still not satisfied and require additional assistance, please write:

YAMAHA MOTOR CORPORATION U.S.A.  
CUSTOMER RELATIONS DEPARTMENT  
P.O. Box 6555  
Cypress, California 90630

When contacting Yamaha Motor Corporation, U.S.A. don't forget to include any important information such as names, addresses, model, V.I.N. (frame number), dates, and receipts.

## CHANGE OF ADDRESS

The federal government requires each manufacturer of a motor vehicle to maintain a complete, up-to-date list of all first purchasers against the possibility of a safety-related defect and recall. This list is compiled from the purchase registrations sent to Yamaha Motor Corporation, U.S.A. by the selling dealer at the time of your purchase.

If you should move after you have purchased your new motorcycle, please advise us of your new address by sending a postcard listing your motorcycle model name, V.I.N. (frame number), dealer number (or dealer's name) as it is shown on your warranty card, your name and new mailing address. Mail to:

YAMAHA MOTOR CORPORATION, U.S.A.  
P.O. Box 6555  
Cypress, California 90630  
Attention: Warranty Department

This will ensure that Yamaha Motor Corporation, U.S.A. has an up-to-date registration record in accordance with federal law.

# CONSUMER INFORMATION

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EAU01063

## YAMAHA EXTENDED SERVICE (Y.E.S.)

Keep your Yamaha protected even after your warranty expires with genuine Yamaha Extended Service (Y.E.S.).

- Y.E.S. is designed and administered by Yamaha Motor Corporation to provide maximum owner satisfaction. You get uninterrupted factory-backed coverage for extra peace of mind.
- Y.E.S. is flexible. You choose the plan that's right for you: 12 months, 24 months, or 36 months beyond your warranty period.
- Y.E.S. is designed and administered by the same Yamaha people who handle your warranty – and it shows in the comprehensive coverage benefits. There are no mileage limitations. Coverage isn't limited to "moving parts" or the "drive train" like many other plans. And Y.E.S. covers manufacturing defects just like the warranty. See the sample contract at your Yamaha dealer to see how comforting uninterrupted factory-backed protection can be.
- You don't have to pay anything for covered repairs. There's no deductible to pay, and repairs aren't "pro-rated." You don't have any "out-of-pocket" expenses for covered repairs.

- In addition, Travel and Recreation Interruption Protection (TRIP) is included at no extra cost. TRIP gives you up to \$150 reimbursement per occurrence for any reasonable expenses you incur because your Yamaha needs covered service: replacement vehicle rental, emergency towing, phone calls, even food and lodging when you are away from home. This superb coverage goes into effect when you purchase Y.E.S., so it applies to any warranty repairs as well as covered repairs during your entire Y.E.S. plan period.
- Y.E.S. coverage is honored at any authorized Yamaha dealer nationwide.
- Y.E.S. coverage is transferable to a new owner if you sell or trade-in. That can make your Yamaha much more valuable!

This excellent Y.E.S. plan coverage is only available to Yamaha owners like you, and only while your Yamaha is still within the Yamaha Limited Warranty period. So visit your authorized Yamaha dealer to get all the facts. He can show you how easy it is to protect your investment with Yamaha Extended Service.

## CONSUMER INFORMATION

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We urge you to act now. You'll get the excellent benefits of TRIP coverage right away, and you'll rest easy knowing you'll have strong factory-backed protection even after your Yamaha Limited Warranty expires. You can also save money: Y.E.S. costs less within the first 90 days after you buy your Yamaha. See your dealer today!

**A special note:**

If visiting your dealer isn't convenient, contact Yamaha with your Primary ID number (your frame number). We'll be happy to help you get the Y.E.S. coverage you need.

**Yamaha Service Marketing**  
P.O. Box 6555  
Cypress, CA 90630



**YAMAHA EXTENDED SERVICE**

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**Use Genuine YAMAHA Parts And Accessories**

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