



 Read this manual carefully before operating this vehicle.

 Baca buku panduan dengan teliti sebelum mengendalikan motosikal ini.

 在使用这电单车以前，请充分使用这手册

**OWNER'S MANUAL**  
**BUKU PANDUAN PEMILIK**  
使用手册

**PG-1**

**T115FX**

**BNT-F8199-30**

EAU46094



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

EAU46094



**Baca buku panduan dengan teliti sebelum mengendalikan motosikal ini. Buku panduan diberi bersama dengan pembelian motosikal.**

EAU46094



**在使用这电单车以前，请充分使用这小手册。这手册须付与电单车一起。**

# Introduction

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EAU10103

Welcome to the Yamaha world of motorcycling!

As the owner of the T115FX, you are benefiting from Yamaha's vast experience and newest technology regarding the design and manufacture of high-quality products, which have earned Yamaha a reputation for dependability.

Please take the time to read this manual thoroughly, so as to enjoy all advantages of your T115FX. The Owner's Manual does not only instruct you in how to operate, inspect and maintain your motorcycle, but also in how to safeguard yourself and others from trouble and injury.

In addition, the many tips given in this manual will help keep your motorcycle in the best possible condition. If you have any further questions, do not hesitate to contact your Yamaha dealer.

The Yamaha team wishes you many safe and pleasant rides. So, remember to put safety first!

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 a Yamaha dealer.

EWA10032

## **WARNING**

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**Please read this manual carefully and completely before operating this motorcycle.**




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## Important manual information

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EAU10134

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

	<b>This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.</b>
	<b>A WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.</b>
	<b>A NOTICE indicates special precautions that must be taken to avoid damage to the vehicle or other property.</b>
<b>TIP</b>	<b>A TIP provides key information to make procedures easier or clearer.</b>

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



## Important manual information

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EAUJ0012

**T115FX  
OWNER'S MANUAL**  
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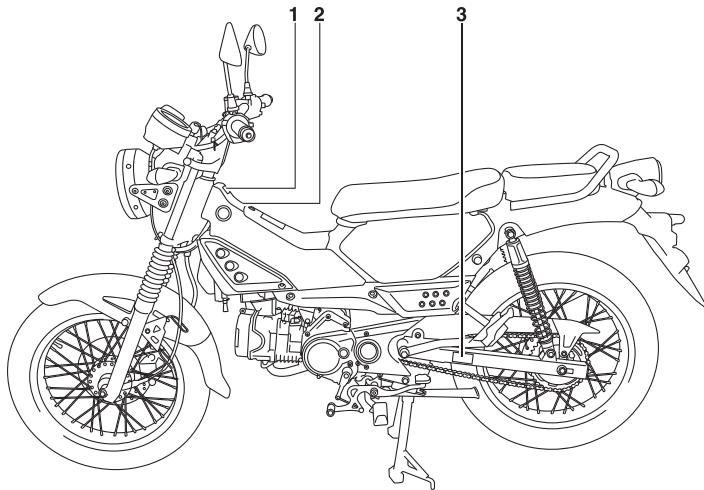
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## Location of important labels

EAU10387

1

Read and understand all of the labels on your vehicle. They contain important information for safe and proper operation of your vehicle. Never remove any labels from your vehicle. If a label becomes difficult to read or comes off, a replacement label is available from your Yamaha dealer.



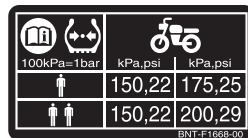
## Location of important labels

1

1



2



## Safety information

EAUU1072

2

### Be a Responsible Owner

As the vehicle's owner, you are responsible for the safe and proper operation of your motorcycle.

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 this motorcycle.

He or she should:

- Obtain thorough instructions from a competent source on all aspects of motorcycle operation.
- Observe the warnings and maintenance requirements in this Owner's Manual.
- Obtain qualified training in safe and proper riding techniques.
- Obtain professional technical service as indicated in this Owner's Manual and/or when made necessary by mechanical conditions.

### Safe Riding

Perform the pre-operation checks each time you use the vehicle to make sure it is in safe operating condition. Failure to inspect or maintain the vehicle properly increases the possibility of an accident or equipment damage. See page 5-1 for a list of pre-operation checks.

- This motorcycle is designed to carry the operator and a passenger.

### TIP

Although this motorcycle is designed to carry a passenger, always comply with the local regulations.

- 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 ap-

pears to be very effective in reducing the chance of this type of accident.

### Therefore:

- Wear a brightly colored jacket.
- Use extra caution when you are approaching and passing through intersections, since intersections are the most likely places for motorcycle accidents to occur.
- Ride where other motorists can see you. Avoid riding in another motorist's blind spot.
- Many accidents involve inexperienced operators. In fact, many operators who have been involved in accidents do not even have a current driver's license.
- Make sure that you are qualified and that you only lend your motorcycle to other qualified operators.
- Know your skills and limits. Staying within your limits may help you to avoid an accident.
- We recommend that you practice riding your motorcycle where there is no traffic until you

have become thoroughly familiar with the motorcycle and all of its controls.

- Many accidents have been caused by error of the motorcycle operator. 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).
- Always obey the speed limit and never travel faster than warranted by road and traffic conditions.
- Always signal before turning or changing lanes. Make sure that other motorists can see you.
- The posture of the operator and passenger is important for proper control.
  - The operator should keep both hands on the handlebar and both feet on the operator footrests during operation to maintain control of the motorcycle.
  - The passenger should always hold onto the operator, the seat strap or grab bar, if equipped, with both hands and keep both

feet on the passenger footrests. Never carry a passenger unless he or she can firmly place both feet on the passenger footrests.

- Never ride under the influence of alcohol or other drugs.
- This motorcycle is designed for on-road use only. It is not suitable for off-road use.

### **Protective Appareil**

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.

- Always wear an approved helmet.
- Wear a face shield or goggles. Wind in your unprotected eyes could contribute to an impairment of vision that could delay seeing a hazard.
- The use of a jacket, substantial shoes, trousers, gloves, etc., is effective in preventing or reducing abrasions or lacerations.

- Never wear loose-fitting clothes, otherwise they could catch on the control levers or wheels and cause injury or an accident.
- Always wear protective clothing that covers your legs, ankles, and feet. The engine or exhaust system become very hot during or after operation and can cause burns.
- A passenger should also observe the above precautions.

### **Avoid Carbon Monoxide Poisoning**

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

Carbon Monoxide is a colorless, odorless, tasteless gas which may be present even if you do not see or smell any engine exhaust. Deadly levels of carbon monoxide can collect rapidly and you can quickly be overcome and unable to save yourself. Also, deadly levels of carbon monoxide can linger for hours or days in enclosed or poorly ventilated areas. If you experience any

## Safety information

symptoms of carbon monoxide poisoning, leave the area immediately, get fresh air, and SEEK MEDICAL TREATMENT.

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

### Loading

Adding accessories or cargo to your motorcycle can adversely affect stability and handling if the weight distribution of the motorcycle is changed. To avoid the possibility of an accident, use extreme caution when adding cargo or accessories to your motorcycle. Use extra care when riding a motorcycle that has added cargo or accessories. Here, along with the information about

accessories below, are some general guidelines to follow if loading cargo to your motorcycle:

The total weight of the operator, passenger, accessories and cargo must not exceed the maximum load limit.

**Operation of an overloaded vehicle could cause an accident.**

<p><b>Maximum load:</b> 150 kg (330 lb)</p>
---

When loading within this weight limit, keep the following in mind:

- Cargo and accessory weight should be kept as low and close to the motorcycle as possible. Securely pack your heaviest items as close to the center of the vehicle as possible and make sure to distribute the weight as evenly as possible on both sides of the motorcycle to minimize imbalance or instability.
- Shifting weights can create a sudden imbalance. Make sure that accessories and cargo are securely attached to the motorcycle

before riding. Check accessory mounts and cargo restraints frequently.

- Properly adjust the suspension for your load (suspension-adjustable models only), and check the condition and pressure of your tires.
- Never attach any large or heavy items to the handlebar, front fork, or front fender. Such items can create unstable handling or a slow steering response.
- **This vehicle is not designed to pull a trailer or to be attached to a sidecar.**

### Genuine Yamaha Accessories

Choosing accessories for your vehicle is an important decision. Genuine Yamaha accessories, which are available only from a Yamaha dealer, have been designed, tested, and approved by Yamaha for use on your vehicle. Many companies with no connection to Yamaha manufacture parts and accessories or offer other modifications for Yamaha vehicles. Yamaha is not in a position to test the products that



these aftermarket companies produce. Therefore, Yamaha can neither endorse nor recommend the use of accessories not sold by Yamaha or modifications not specifically recommended by Yamaha, even if sold and installed by a Yamaha dealer.

### **Aftermarket Parts, Accessories, and Modifications**

While you may find aftermarket products similar in design and quality to genuine Yamaha accessories, recognize that some aftermarket accessories or modifications are not suitable because of potential safety hazards to you or others. Installing aftermarket products or having other modifications performed to your vehicle that change any of the vehicle's design or operation characteristics can put you and others at greater risk of serious injury or death. You are responsible for injuries related to changes in the vehicle. Keep the following guidelines in mind, as well as those provided under "Loading" when mounting accessories.

- Never install accessories or carry cargo that would impair the performance of your motorcycle. Carefully inspect the accessory before using it to make sure that 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.
- 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.
- 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 passing or being passed by large vehicles.

- 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.
- Use caution when adding electrical accessories. If electrical 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.

### **Aftermarket Tires and Rims**

The tires and rims that came with your motorcycle were designed to match the performance capabilities and to provide the best combination of handling, braking, and comfort. Other tires, rims, sizes, and combinations

## Safety information

may not be appropriate. Refer to page 7-15 for tire specifications and more information on replacing your tires.

### Transporting the Motorcycle

Be sure to observe following instructions before transporting the motorcycle in another vehicle.

- Remove all loose items from the motorcycle.
- Point the front wheel straight ahead on the trailer or in the truck bed, and choke it in a rail to prevent movement.
- Secure the motorcycle with tie-downs or suitable straps that are attached to solid parts of the motorcycle, such as the frame or upper front fork triple clamp (and not, for example, to rubber-mounted handlebars or turn signals, or parts that could break). Choose the location for the straps carefully so the straps will not rub against painted surfaces during transport.

- The suspension should be compressed somewhat by the tie-downs, if possible, so that the motorcycle will not bounce excessively during transport.

EALU57610

### Further safe-riding points

- Be sure to signal clearly when making turns.
- Braking can be extremely difficult on a wet road. Avoid hard braking, because the motorcycle could slide. Apply the brakes slowly when stopping on a wet surface.
- Slow down as you approach a corner or turn. Once you have completed a turn, accelerate slowly.
- Be careful when passing parked cars. A driver might not see you and open a door in your path.
- Railroad crossings, streetcar rails, iron plates on road construction sites, and manhole covers become extremely slippery when wet. Slow down and cross them with caution. Keep the motorcycle upright, otherwise it could slide out from under you.
- The brake pads or linings could get wet when you wash the motorcycle. After washing the motorcycle, check the brakes before riding.

- Always wear a helmet, gloves, trousers (tapered around the cuff and ankle so they do not flap), and a brightly colored jacket.
- Do not carry too much luggage on the motorcycle. An overloaded motorcycle is unstable. Use a strong cord to secure any luggage to the carrier (if equipped). A loose load will affect the stability of the motorcycle and could divert your attention from the road. (See page 2-3.)

## Helmets

Operating this vehicle without an approved motorcycle helmet increases your chances of a severe head injury or death in the event of an accident. The majority of fatalities from motorcycle or scooter 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.

### Always select an approved motorcycle helmet

Pay attention to the following when choosing a motorcycle helmet.

- The helmet must meet the safety standard "TIS".
- The helmet size must match the size of the rider's head.
- Never subject a helmet to heavy shocks.

### Wearing the helmet correctly

Always connect the chin strap. In the case of an accident, the helmet has a much less chance of coming off if the chin strap is connected.

EAUU0033

### Correct usage



ZAUU0003

### Wrong usage



ZAUU0007

### Types of helmets and their usage

- Half-type: use only for riding at low speeds

## Safety information

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2



ZAUU0004



ZAUU0006

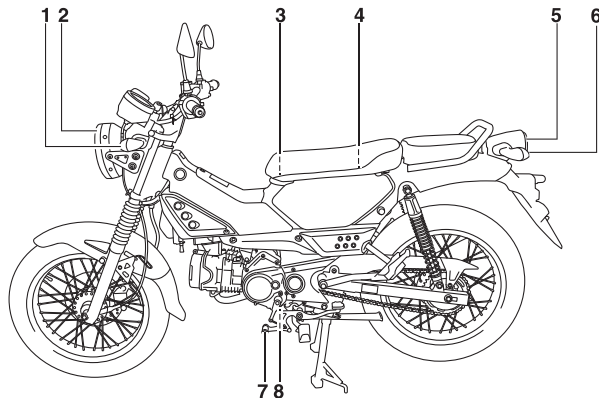
- Full-type: use only for riding at low to mid-range speeds



ZAUU0005

- Full-face-type: use for riding at mid-range to high speeds

## Left view



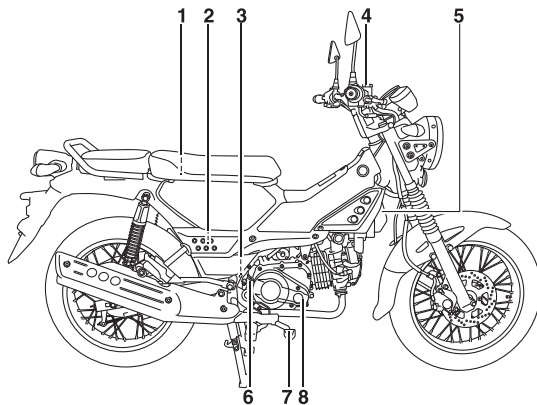
- 1. Front turn signal light (page 7-30)
- 2. Headlight (page 7-28)
- 3. Helmet holder (page 4-8)
- 4. Tool kit (page 7-1)
- 5. Tail/brake light (page 7-30)
- 6. Rear turn signal light (page 7-30/7-30)
- 7. Shift pedal (page 4-5)
- 8. Engine oil drain bolt (page 7-9)

## Description

EAU10421

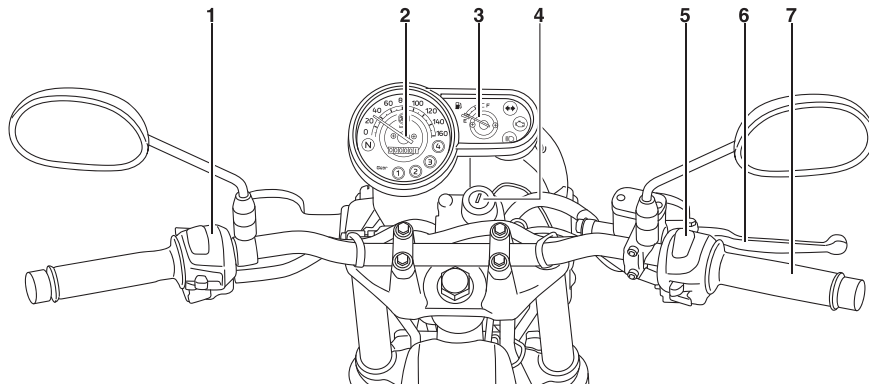
### Right view

3



1. Fuel tank cap (page 4-6)
2. Battery (page 7-26)
3. Rear brake light switch (page 7-18)
4. Front brake fluid reservoir (page 7-19)
5. Air filter (page 7-12)
6. Engine oil filler cap (page 7-9)
7. Brake pedal (page 4-5)
8. Engine oil filter element (page 7-9)

## Controls and instruments

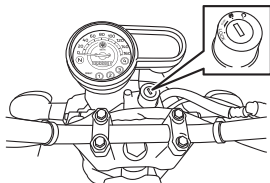
**3**

- 1. Left handlebar switches (page 4-3)
- 2. Speedometer (page 4-3)
- 3. Fuel gauge (page 4-3/4-3)
- 4. Main switch/steering lock (page 4-1)
- 5. Right handlebar switch (page 4-3)
- 6. Front brake lever (page 4-5)
- 7. Throttle grip (page 7-14)

## Instrument and control functions

### Main switch/steering lock

EAUJ0353



The main switch/steering lock controls the ignition and lighting systems, and is used to lock the steering, and is used to open the seat also. The various main switch positions are described below.

#### TIP

The main switch is equipped with a keyhole cover.

#### TIP

- To prevent battery discharge, do not leave the key in the on position without the engine running.
- The vehicle lights come on automatically when the engine is started.

#### OFF

All electrical systems are off. The key can be removed.

EAUJ0664



**Never turn the key to “OFF” or “LOCK” while the vehicle is moving. Otherwise the electrical systems will be switched off, which may result in loss of control or an accident.**

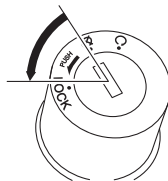
EWA10062

#### LOCK

The steering is locked, and all electrical systems are off. The key can be removed.

EAUJ1043

### To lock the steering



1. Turn the handlebars all the way to the left.
2. Push the key in from the “OFF” position, and then turn it to “LOCK” while still pushing it.
3. Remove the key.

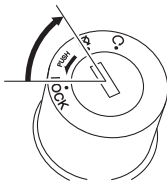
#### TIP

If the steering will not lock, try turning the handlebars back to the right slightly.



## Instrument and control functions

To unlock the steering



Push the key in, and then turn it to “OFF” while still pushing it.

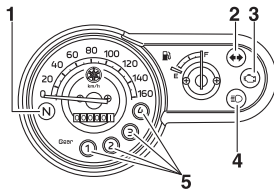
EWAU0042



### **WARNING**

- **Never turn the key to “OFF” or “LOCK” while the vehicle is moving; otherwise, the electrical systems will be switched off, which may result in loss of control or an accident.**
- **If the vehicle turns over, and after placing it upright, ensure that there is no fuel leakage. If fuel is leaking, have a Yamaha dealer check the vehicle.**

### Indicator lights and warning light

EAU1100F



1. Neutral indicator light “N”
2. Turn signal indicator light “ 

#### Turn signal indicator light “ EAU11022

This indicator light flashes when a turn signal light is flashing.

#### Neutral indicator light “N”

EAU11061

This indicator light comes on when the transmission is in the neutral position.

#### Gear position indicator lights “1” “2” “3”, and “4”

EAU37612

The respective indicator light comes on when the transmission is in the 1st, 2nd, 3rd or 4th gear position.

#### High beam indicator light “ EAU11081

This indicator light comes on when the high beam of the headlight is switched on.

#### Engine trouble warning light “ EAU11507

This warning light comes on or flashes if a problem is detected in the electrical circuit monitoring the engine. If this occurs, have a Yamaha dealer check the self-diagnosis system.

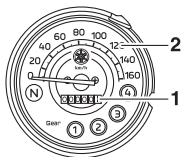
The electrical circuit of the warning light can be checked by turning the vehicle on. The warning light should come on for a few seconds, and then go off.

If the warning light does not come on initially when the vehicle is turned on, or if the warning light remains on, have a Yamaha dealer check the electrical circuit.

# Instrument and control functions

## Speedometer unit

EAUT1822



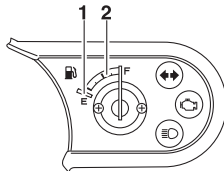
4

1. Odometer
2. Speedometer

The speedometer unit is equipped with a speedometer and an odometer. The speedometer shows the riding speed. The odometer shows the total distance traveled.

## Fuel gauge

EAU37053



1. Red zone
2. Fuel gauge

The fuel gauge indicates the amount of fuel in the fuel tank. The needle moves towards "E" (Empty) as the fuel level decreases. When the needle reaches the red zone, approximately 0.5 L (0.15 US gal, 0.12 Imp.gal) remain in the fuel tank. If this occurs, refuel as soon as possible.

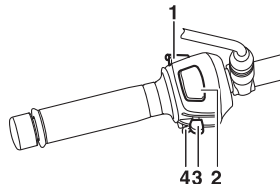
### TIP

The main switch must be turned to "ON" for the fuel gauge to display an accurate fuel level reading.

## Handlebar switches

EAU1234T

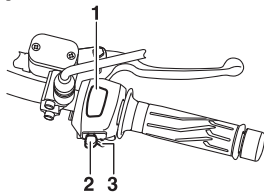
### Left



1. Pass switch "PASS"
2. Dimmer switch "☐/☐"
3. Turn signal switch "↔/↔"
4. Horn switch "🔊"

## Instrument and control functions

Right



1. Engine stop switch “○/✕”
2. Hazard lights switch “▲/OFF”
3. Start switch “(S)”

### Pass switch “≡○”

Press this switch to flash the headlight.

### TIP

When the dimmer switch is set to “≡○”, the passing switch has no effect.

### Dimmer switch “≡○/◇○”

Set this switch to “≡○” for the high beam and to “◇○” for the low beam.

### Turn signal switch “↵/↶”

To signal a right-hand turn, push this switch to “↶”. To signal a left-hand turn, push this switch to “↵”. When released, the switch returns to the center position. To cancel the turn signal lights, push the switch in after it has returned to the center position.

### Horn switch “📢”

Press this switch to sound the horn.

### Engine stop switch “○/✕”

Set this switch to “○” (run) before starting the engine. Set this switch to “✕” (stop) to stop the engine in case of an emergency, such as in the event of an overturn or if the throttle is stuck.

### Start switch “(S)”

Push this switch to crank the engine with the starter. See page 6-2 for starting instructions prior to starting the engine.

### Hazard lights switch “▲/OFF”

The hazard lights (simultaneous flashing of all turn signal lights) are used in case of an emergency, such as to warn other drivers when your vehicle is stopped where it might be a traffic hazard.

Set this switch to “▲” to turn on the hazard lights. To turn off the hazard lights, set the switch to “OFF”.

### NOTICE

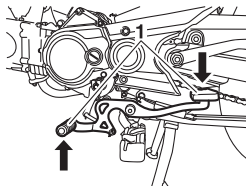
**Do not use the hazard lights for an extended length of time with the engine not running, otherwise the battery may discharge.**

# Instrument and control functions

4

## Shift pedal

EAUJ37462



1. Shift pedal

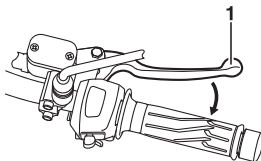
The shift pedal is located on the left side of the motorcycle. This motorcycle is equipped with a constant-mesh 4 speed transmission.

### TIP

Use your toes to shift up and your heel to shift down.

## Brake lever

EAUJ2892

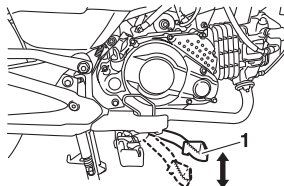


1. Brake lever

The brake lever is located on the right side of the handlebar. To apply the front brake, pull the lever toward the throttle grip.

## Brake pedal

EAUJ39542



1. Brake pedal

The brake pedal is located on the right side of the vehicle.

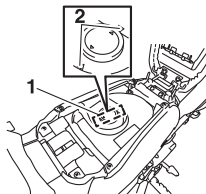
This model is equipped with a unified brake system.

When pressing down on the brake pedal, the rear brake and a portion of the front brake are applied. For full braking performance, apply both the brake lever and the brake pedal simultaneously.

## Instrument and control functions

EAU37474

### Fuel tank cap



1. Fuel tank cap
2. “Δ” mark

#### To remove the fuel tank cap

1. Open the seat. (See page 4-8.)
2. Turn the fuel tank cap counter-clockwise and pull it off.

#### To install the fuel tank cap

1. Insert the fuel tank cap into the tank opening and turn it clockwise until the “Δ” marks on the cap and tank cover are aligned.
2. Close the seat.

#### **WARNING**

Make sure that the fuel tank cap is properly closed after filling fuel. Leaking fuel is a fire hazard.

EWA11092

### Fuel

Make sure there is sufficient gasoline in the tank.

EWA10662

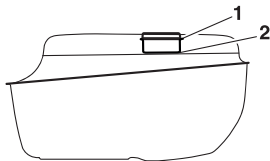
#### **WARNING**

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

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

## Instrument and control functions

4



1. Fuel tank filler tube
2. Maximum fuel level

3. Wipe up any spilled fuel immediately. **NOTICE:** Immediately wipe off spilled fuel with a clean, dry, soft cloth, since fuel may deteriorate painted surfaces or plastic parts. [ECA10072]
4. Be sure to securely close the fuel tank cap.

EWA15152



### WARNING

Gasoline is poisonous and can cause injury or death. Handle gasoline with care. Never siphon gasoline by mouth. If you should swallow some gasoline or inhale a lot of gasoline vapor, or get some gasoline in your eyes, see your doctor immedi-

ately. If gasoline spills on your skin, wash with soap and water. If gasoline spills on your clothing, change your clothes.

EALUN0750

#### Recommended fuel:

Regular unleaded gasoline (E10 to E20 only)

#### Fuel tank capacity:

5.1 L (1.3 US gal, 1.1 Imp.gal)

ECA11401

### NOTICE

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

EAU13435

## Catalytic converter

The exhaust system contains catalytic converter(s) to reduce harmful exhaust emissions.

EWA10863



### WARNING

The exhaust system is hot after operation. To prevent a fire hazard or burns:

- Do not park the vehicle near possible fire hazards such as grass or other materials that easily burn.
- Park the vehicle in a place where pedestrians or children are not likely to touch the hot exhaust system.
- Make sure that the exhaust system has cooled down before doing any maintenance work.
- Do not allow the engine to idle more than a few minutes. Long idling can cause a build-up of heat.

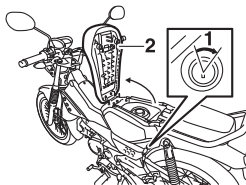
## Instrument and control functions

### Seat

EAUT3171

#### To open the seat

1. Place the vehicle on the center-stand.
2. Insert the key in the lock, and then turn it clockwise.



1. Seat lock
2. Seat

3. Fold the seat up.

#### To close the seat

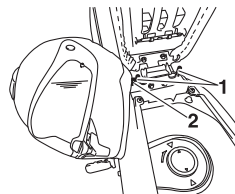
1. Fold the seat down, and then push it down to lock it in place.
2. Remove the key.

#### TIP

Make sure that the seat is properly secured before riding.

### Helmet holders

EAUV0850



1. Helmet holder
2. D-ring

The helmet holders are located under the seat.

#### To secure a helmet to a helmet holder

1. Open the seat. (See page 4-8.)
2. Attach the D-ring of the helmet strap to a helmet holder, and then securely close the seat.

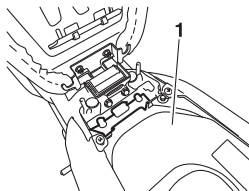
**WARNING! Never ride with a helmet attached to the helmet holder, since the helmet may hit objects, causing loss of control and possibly an accident.** [EWA10162]

## Instrument and control functions

### To release a helmet from a helmet holder

Open the seat, remove the helmet from the helmet holder, and then close the seat.

### Storage compartment



1. Storage compartment

The storage compartment is located under the seat. (See page 4-8.) When storing the Owner's Manual or other documents in the storage compartment, be sure to wrap them in a plastic bag so that they will not get wet. When washing the vehicle, be careful not to let any water enter the storage compartment.

EALJ37892

EALJ37491

### Sidestand

The sidestand is located on the left side of the frame. Raise the sidestand or lower it with your foot while holding the vehicle upright.

EWA14191



**The vehicle must not be ridden with the sidestand down, or if the sidestand cannot be properly moved up (or does not stay up), otherwise the sidestand could contact the ground and distract the operator, resulting in a possible loss of control.**



## For your safety – pre-operation checks

EAU1559B

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

EWA11152

### **WARNING**

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

Before using this vehicle, check the following points:

ITEM	CHECKS	PAGE
Fuel	<ul style="list-style-type: none"><li>• Check fuel level in fuel tank.</li><li>• Refuel if necessary.</li><li>• Check fuel line for leakage.</li></ul>	4-6
Engine oil	<ul style="list-style-type: none"><li>• Check oil level in engine.</li><li>• If necessary, add recommended oil to specified level.</li><li>• Check vehicle for oil leakage.</li></ul>	7-9
Front brake	<ul style="list-style-type: none"><li>• Check operation.</li><li>• If soft or spongy, have Yamaha dealer bleed hydraulic system.</li><li>• Check brake pads for wear.</li><li>• Replace if necessary.</li><li>• Check fluid level in reservoir.</li><li>• If necessary, add specified brake fluid to specified level.</li><li>• Check hydraulic system for leakage.</li></ul>	7-19, 7-19
Rear brake	<ul style="list-style-type: none"><li>• Check operation.</li><li>• Check pedal free play.</li><li>• Adjust if necessary.</li></ul>	7-17, 7-19
Throttle grip	<ul style="list-style-type: none"><li>• Make sure that operation is smooth.</li><li>• Check throttle grip free play.</li><li>• If necessary, have Yamaha dealer adjust throttle grip free play and lubricate cable and grip housing.</li></ul>	7-14, 7-23

## For your safety – pre-operation checks

5

ITEM	CHECKS	PAGE
Control cables	<ul style="list-style-type: none"> <li>• Make sure that operation is smooth.</li> <li>• Lubricate if necessary.</li> </ul>	7-22
Drive chain	<ul style="list-style-type: none"> <li>• Check chain slack.</li> <li>• Adjust if necessary.</li> <li>• Check chain condition.</li> <li>• Lubricate if necessary.</li> </ul>	7-20, 7-22
Wheels and tires	<ul style="list-style-type: none"> <li>• Check for damage.</li> <li>• Check tire condition and tread depth.</li> <li>• Check air pressure.</li> <li>• Correct if necessary.</li> </ul>	7-15, 7-16
Brake pedal	<ul style="list-style-type: none"> <li>• Make sure that operation is smooth.</li> <li>• Lubricate pedal pivoting point if necessary.</li> </ul>	7-23
Brake lever	<ul style="list-style-type: none"> <li>• Make sure that operation is smooth.</li> <li>• Lubricate lever pivoting point if necessary.</li> </ul>	7-23
Centerstand, sidestand	<ul style="list-style-type: none"> <li>• Make sure that operation is smooth.</li> <li>• Lubricate pivots if necessary.</li> </ul>	7-24
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>	—
Instruments, lights, signals and switches	<ul style="list-style-type: none"> <li>• Check operation.</li> <li>• Correct if necessary.</li> </ul>	—

## Operation and important riding points

EAU15952

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

EWA10272

### **WARNING**

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

### Engine break-in

There is never a more important period in the life of your engine than the period between 0 and 1000 km (600 mi). For this reason, you should read the following material carefully.

Since the engine is brand new, do not put an excessive load on it for the first 1000 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 that might result in engine overheating must be avoided.

EAU16831

#### 150–500 km (90–300 mi)

Avoid prolonged operation above 1/2 throttle.

Rev the engine freely through the gears, but do not use full throttle at any time.

#### 500–1000 km (300–600 mi)

Avoid prolonged operation above 3/4 throttle.

#### 1000 km (600 mi) and beyond

Avoid prolonged full-throttle operation. Vary the engine speed occasionally.

**NOTICE: After 1000 km (600 mi) of operation, the engine oil must be changed, the oil filter cartridge or element replaced, and the oil strainer cleaned. If any engine trouble should occur during the engine break-in period, immediately have a Yamaha dealer check the vehicle.**

[ECA10363]

EAU37793

#### 0–150 km (0–90 mi)

Avoid prolonged operation above 1/3 throttle.

After every hour of operation, stop the engine, and then let it cool for five to ten minutes.

Vary the engine speed from time to time. Do not operate the engine at one set throttle position.

# Operation and important riding points

EAUJ1680

EWA14201

ECA11043

## Starting and warming up a cold engine

### To start the engine

1. Place the vehicle on the centerstand.
2. Turn the main switch on.
3. Confirm the indicator and warning light(s) come on for a few seconds, and then go off. (See page 4-2.)

### TIP

Do not start the engine if the engine trouble warning light remains on.

ECA26710

### NOTICE

**Do not continue to operate the vehicle if a warning light remains on. Have a Yamaha dealer check the vehicle.**

4. Shift the transmission into the neutral position.

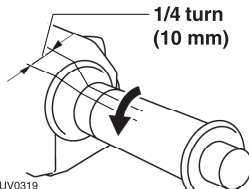
### WARNING

**Before starting the engine, make sure the transmission is in neutral and that the vehicle is placed on the centerstand.**

5. While applying the front or rear brake, push the start switch.
6. Release the start switch when the engine starts, or after 5 seconds. Wait 10 seconds before pressing the switch again to allow battery voltage to restore.

### TIP

If the engine fails to start, try again with the throttle grip open 1/4 turn (10 mm).



### NOTICE

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

# Operation and important riding points

EAUJ1690

EAUJ37552

ECA15182

ECAN0072

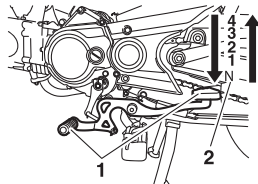
## Shifting

### NOTICE

Do not ride through deep water, otherwise the engine may be damaged. Avoid puddles because they may be deeper than expected.

### TIP

If the battery voltage is less than 11.50 volts, charge the battery.



1. Shift pedal
2. Neutral position

Shifting gears lets you control the amount of engine power available for starting off, accelerating, climbing hills, etc. When shifting gears, fully return the throttle grip. The use of the shift pedal is shown in the illustration.

### TIP

The transmission cannot be shifted from 4th gear to neutral when the engine is running.

### NOTICE

- When shifting, press the shift pedal firmly until you feel the gear shift is complete.
- Even with the transmission in the neutral position, do not coast for long periods of time with the engine off, nor tow the motorcycle for long distances. The transmission is properly lubricated only when the engine is running. Inadequate lubrication may damage the transmission.
- Be sure to fully close the throttle grip when shifting.

# Operation and important riding points

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## Tips for reducing fuel consumption

EAU16811

Fuel consumption depends largely on your riding style. Consider the following tips to reduce fuel consumption:

- Shift up swiftly, and avoid high engine speeds during acceleration.
- Do not rev the engine while shifting down, and avoid high engine speeds with no load on the engine.
- Turn the engine off instead of letting it idle for an extended length of time (e.g., in traffic jams, at traffic lights or at railroad crossings).

## Parking

EAU17214

When parking, stop the engine, and then remove the key from the main switch.

EWA10312



- **Since the engine and exhaust system can become very hot, park in a place where pedestrians or children are not likely to touch them and be burned.**
- **Do not park on a slope or on soft ground, otherwise the vehicle may overturn, increasing the risk of a fuel leak and fire.**
- **Do not park near grass or other flammable materials which might catch fire.**

## Periodic maintenance and adjustment

EAU17246

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

The intervals given in the periodic maintenance charts should be simply considered as a general guide under normal riding conditions. However, depending on the weather, terrain, geographical location, and individual use, the maintenance intervals may need to be shortened.

### **! WARNING**

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

EWA10322

### **! WARNING**

Turn off the engine when performing maintenance unless otherwise specified.

- A running engine has moving parts that can catch on body parts or clothing and electrical parts that can cause shocks or fires.
- Running the engine while servicing can lead to eye injury, burns, fire, or carbon monoxide poisoning – possibly leading to death. See page 2-2 for more information about carbon monoxide.

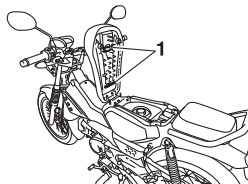
EWA15123

### **! WARNING**

Brake discs, calipers, drums, and linings can become very hot during use. To avoid possible burns, let brake components cool before touching them.

EWA15461

## Tool kit



1. Tool kit

The tool kit is in the location shown. The information included in this manual and the tools provided in the tool kit are intended to assist you in the performance of preventive maintenance and minor repairs. However, a torque wrench and other tools are necessary to perform certain maintenance work correctly.

### **TIP**

If you do not have the tools or experience required for a particular job, have your Yamaha dealer perform it for you.

## Periodic maintenance and adjustment

EAUU0621

### TIP

- The annual checks must be performed every year, except if a kilometer-based maintenance is performed instead.
- From 20000 km, repeat the maintenance intervals starting from 4000 km.
- Items marked with an asterisk should be performed by a Yamaha dealer as they require special tools, data and technical skills.

EAUU2431

### Periodic maintenance chart for the emission control system

NO.	ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING (whichever comes first)					ANNUAL CHECK
			1000 km or 1 month	4000 km or 4 months	8000 km or 8 months	12000 km or 12 months	16000 km or 16 months	
1	* Fuel line	• Check fuel hose for cracks or damage.		√	√	√	√	√
2	* Fuel filter	• Check condition. • Replace if necessary.	Every 12000 km (7500 mi)					
3	Spark plug	• Check condition. • Clean and regap.		√	√	√	√	
		• Replace.	Every 8000 km (5000 mi)					
4	* Valves	• Check valve clearance. • Adjust.		√	√	√	√	
5	* Fuel injection	• Check engine idle speed.	√	√	√	√	√	√
		• Clean, check fuel injection volume and angle of injector.	Every 10000 km (6200 mi)					



## Periodic maintenance and adjustment

NO.	ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING (whichever comes first)					ANNUAL CHECK
			1000 km or 1 month	4000 km or 4 months	8000 km or 8 months	12000 km or 12 months	16000 km or 16 months	
6	*	Exhaust system	<ul style="list-style-type: none"> <li>• Check for leakage.</li> <li>• Tighten if necessary.</li> <li>• Replace gasket(s) if necessary.</li> </ul>	√	√	√	√	√

# Periodic maintenance and adjustment

EAUJ2441

## General maintenance and lubrication chart

NO.	ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING (whichever comes first)					ANNUAL CHECK
			1000 km or 1 month	4000 km or 4 months	8000 km or 8 months	12000 km or 12 months	16000 km or 16 months	
1	* Diagnostic system check	<ul style="list-style-type: none"> <li>Perform dynamic inspection using Yamaha diagnostic tool.</li> <li>Check the error codes.</li> </ul>	✓	✓	✓	✓	✓	✓
2	Air filter element	<ul style="list-style-type: none"> <li>Replace.</li> </ul>	Every 16000 km (10000 mi)					
3	Air filter check hose	<ul style="list-style-type: none"> <li>Clean.</li> </ul>	✓	✓	✓	✓	✓	
4	* Battery	<ul style="list-style-type: none"> <li>Check voltage.</li> <li>Charge if necessary.</li> </ul>	✓	✓	✓	✓	✓	✓
5	* Front brake	<ul style="list-style-type: none"> <li>Check operation, fluid level and vehicle for fluid leakage.</li> <li>Replace brake pads.</li> </ul>	✓	✓	✓	✓	✓	✓
6	* Rear brake	<ul style="list-style-type: none"> <li>Check operation and adjust brake pedal free play.</li> <li>Replace brake pads.</li> </ul>	✓	✓	✓	✓	✓	✓
7	* Brake hose	<ul style="list-style-type: none"> <li>Check for cracks or damage.</li> <li>Check for correct routing and clamping.</li> <li>Replace.</li> </ul>		✓	✓	✓	✓	✓
8	* Brake fluid	<ul style="list-style-type: none"> <li>Change.</li> </ul>	Every 2 years					
9	* Wheels	<ul style="list-style-type: none"> <li>Check runout and for damage.</li> <li>Replace if necessary.</li> </ul>		✓	✓	✓	✓	✓

## Periodic maintenance and adjustment

NO.	ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING (whichever comes first)					ANNUAL CHECK
			1000 km or 1 month	4000 km or 4 months	8000 km or 8 months	12000 km or 12 months	16000 km or 16 months	
10	* Tires	<ul style="list-style-type: none"> <li>• Check tread depth and for damage.</li> <li>• Replace if necessary.</li> <li>• Check air pressure.</li> <li>• Correct if necessary.</li> </ul>		✓	✓	✓	✓	✓
11	* Wheel bearings	<ul style="list-style-type: none"> <li>• Check bearings for looseness or damage.</li> </ul>		✓	✓	✓	✓	
12	* Swingarm	<ul style="list-style-type: none"> <li>• Check operation and for excessive play.</li> <li>• Lubricate with lithium-soap-based grease.</li> </ul>		✓	✓	✓	✓	
13	Drive chain	<ul style="list-style-type: none"> <li>• Check chain slack, alignment and condition.</li> <li>• Adjust and lubricate chain with a special O-ring chain lubricant thoroughly.</li> </ul>	Every 1000 km (600 mi) and after washing the motorcycle, riding in the rain or riding in wet areas					
14	* Steering bearings	<ul style="list-style-type: none"> <li>• Check bearing play and steering for roughness.</li> <li>• Lubricate with lithium-soap-based grease.</li> </ul>	✓	✓	✓	✓	✓	
15	* Chassis fasteners	<ul style="list-style-type: none"> <li>• Make sure that all nuts, bolts and screws are properly tightened.</li> </ul>		✓	✓	✓	✓	✓
16	Brake lever pivot shaft	<ul style="list-style-type: none"> <li>• Lubricate with silicone grease.</li> </ul>		✓	✓	✓	✓	✓
17	Brake pedal pivot shaft	<ul style="list-style-type: none"> <li>• Lubricate with lithium-soap-based grease.</li> </ul>		✓	✓	✓	✓	✓

## Periodic maintenance and adjustment

NO.	ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING (whichever comes first)					ANNUAL CHECK
			1000 km or 1 month	4000 km or 4 months	8000 km or 8 months	12000 km or 12 months	16000 km or 16 months	
18	Sidestand, center-stand	<ul style="list-style-type: none"> <li>• Check operation.</li> <li>• Lubricate with lithium-soap-based grease.</li> </ul>		√	√	√	√	√
19	* Front fork	<ul style="list-style-type: none"> <li>• Check operation and for oil leakage.</li> </ul>		√	√	√	√	
		• Change the front fork oil.	Every 20000 km (12000 mi)					
20	* Shock absorber assembly	• Check operation and shock absorber for oil leakage.		√	√	√	√	
21	Engine oil	<ul style="list-style-type: none"> <li>• Change.</li> <li>• Check oil level and vehicle for oil leakage.</li> </ul>	√	√	√	√	√	
22	Engine oil filter element	• Replace.	√		√		√	
23	* Front and rear brake switches	• Check operation.	√	√	√	√	√	√
24	Moving parts and cables	• Lubricate.		√	√	√	√	√
25	* Throttle grip	<ul style="list-style-type: none"> <li>• Check operation.</li> <li>• Check throttle grip free play, and adjust if necessary.</li> <li>• Lubricate cable and grip housing.</li> </ul>		√	√	√	√	√
26	* Lights, signals and switches	<ul style="list-style-type: none"> <li>• Check operation.</li> <li>• Adjust headlight beam.</li> </ul>	√	√	√	√	√	√

## Periodic maintenance and adjustment

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EAUV1700

### TIP

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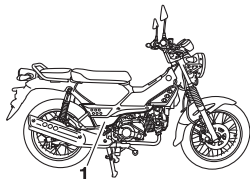
- Air filter
    - This model's air filter is equipped with a disposable oil-coated paper element, which must not be cleaned with compressed air to avoid damaging it.
    - The air filter element needs to be replaced more frequently when riding in unusually wet or dusty areas.
  - Hydraulic brake service
    - Regularly check and, if necessary, correct the brake fluid level.
    - Every two years replace the internal components of the brake master cylinders and calipers, and change the brake fluid.
    - Replace the brake hoses every four years and if cracked or damaged.
  - Battery service
    - Check the condition and service every 3 months.
    - Recharge the battery immediately if the voltage is less than 12.4 V.
    - If the battery tends to discharge, replace it immediately.
-

## Periodic maintenance and adjustment

### Removing and installing the panel

EAU18752

The panel shown needs to be removed to perform some of the maintenance jobs described in this chapter. Refer to this section each time the panel needs to be removed and installed.



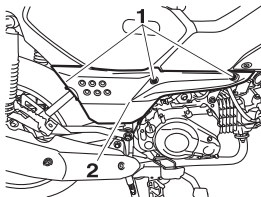
1. Panel A

EAU1610

### Panel A

#### To remove the panel

Remove the bolts and screws, and then take the panel off.



1. Screw
2. Panel A

#### To install the panel

Place the panel in the original position, and then install the bolts and screws.

EAU19623

### Checking the spark plug

The spark plug is an important engine component, which should be checked periodically, preferably by a Yamaha dealer. Since heat and deposits will cause any spark plug to slowly erode, it should be removed and checked in accordance with the periodic maintenance and lubrication chart. In addition, the condition of the spark plug can reveal the condition of the engine.

The porcelain insulator around the center electrode of the spark plug should be a medium-to-light tan (the ideal color when the vehicle is ridden normally). If the spark plug shows a distinctly different color, the engine could be operating improperly. Do not attempt to diagnose such problems yourself. Instead, have a Yamaha dealer check the vehicle.

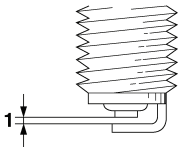
If the spark plug shows signs of electrode erosion and excessive carbon or other deposits, it should be replaced.

**Specified spark plug:**  
NGK/CR6HSA

## Periodic maintenance and adjustment

EAAU02030

Before installing a spark plug, the spark plug gap should be measured with a wire thickness gauge and, if necessary, adjusted to specification.



1. Spark plug gap

### Spark plug gap:

0.6–0.7 mm (0.024–0.028 in)

Clean the surface of the spark plug gasket and its mating surface, and then wipe off any grime from the spark plug threads.

### Tightening torque:

Spark plug:

13 N·m (1.3 kgf·m, 9.6 lb·ft)

### TIP

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

### Engine oil and oil filter element

The engine oil level should be checked regularly. In addition, the oil must be changed and the oil filter element replaced at the intervals specified in the periodic maintenance chart.

#### Recommended brand:

YAMALUBE

#### SAE viscosity grade:

10W-40

#### API service grade:

SG or higher, JASO standard MA

#### Oil quantity:

Oil change:

0.80 L (0.85 US qt, 0.70 Imp.qt)

With oil filter removal:

0.85 L (0.90 US qt, 0.75 Imp.qt)

ECAU00033

### NOTICE

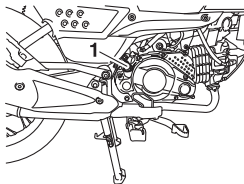
- In order to prevent clutch slippage (since the engine oil also lubricates the clutch), do not mix any chemical additives. Do not use oils with a diesel specification of “CD”. Make sure that the engine oil doesn’t contain friction-reducing additives.

## Periodic maintenance and adjustment

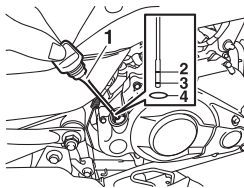
- Make sure that no foreign material enters the crankcase.

### To check the engine oil level

1. Start the engine, warm it up for several minutes, and then turn it off.
2. Wait a few minutes until the oil settles.
3. With the vehicle on a level surface, hold it in an upright position for an accurate reading.
4. Remove the oil filler cap and wipe the dipstick clean, then insert the dipstick back into the oil filler hole (without screwing it in), and then remove it again to check the oil level. **WARNING! Never remove the engine oil filler cap after high-speed operation, otherwise hot engine oil could spout out and cause damage or injury. Always let the engine oil cool down sufficiently before removing the oil filler cap.** [EWA17640]



1. Engine oil filler cap



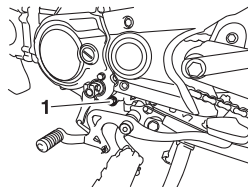
1. Dipstick
2. Maximum level mark
3. Minimum level mark
4. O-ring

5. If the engine oil is at or below the minimum level mark, add oil.
6. Check the oil O-ring for damage. Replace if necessary.

7. Install the oil filler cap.

### To change the engine oil (and replace the filter)

1. Start the engine, warm it up for several minutes, and then turn it off.
2. Place an oil pan under the engine to collect the used oil.
3. Remove the engine oil filler cap.
4. Remove the engine oil drain bolt and gasket. Discard the used gas-



1. Engine oil drain bolt

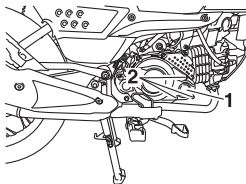
### TIP

Skip steps 4–6 if the oil filter element is not being replaced.



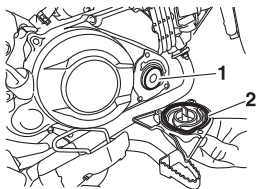
## Periodic maintenance and adjustment

5. Remove the oil filter element cover by removing the bolts.



1. Oil filter element cover  
2. Bolt

6. Remove the used oil filter element and O-rings. Replace with new parts.



1. Oil filter element  
2. O-ring

### TIP

Make sure the O-rings are properly seated.

7. Install the oil filter element cover and tighten the bolts.

#### Tightening torque:

Oil filter element cover bolt:  
10 N·m (1.0 kgf·m, 7.4 lb·ft)

8. Install the engine oil drain bolt with a new gasket and tighten the bolt.

#### Tightening torque:

Engine oil drain bolt:  
20 N·m (2.0 kgf·m, 15 lb·ft)

9. Refill the crankcase with the specified amount of engine oil, and then install the oil filler cap.

ECA10441

### NOTICE

**After changing the engine oil, be sure to check the oil pressure as described below.**

10. Remove the bleed bolt, start the engine and keep it idling until oil flows out, then install the bleed bolt.

### TIP

If no oil comes out after one to two minutes, stop the engine. Consult your Yamaha dealer for inspection before riding the vehicle again.

11. After checking the oil pressure, tighten the bleed bolt.

#### Tightening torque:

Bleed bolt:  
7 N·m (0.7 kgf·m, 5.2 lb·ft)

12. Start the engine and let it idle for several minutes. Check for oil leakage.  
13. Turn the engine off, and check the oil level one last time.

### TIP

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

## Periodic maintenance and adjustment

### Why Yamalube

YAMALUBE oil is a Genuine YAMAHA Part born of the engineers' passion and belief that engine oil is an important liquid engine component. We form teams of specialists in the fields of mechanical engineering, chemistry, electronics and track testing, and have them develop the engine together with the oil it will use. Yamalube oils take full advantage of the base oil's qualities and blend in the ideal balance of additives to make sure the final oil clears our performance standards. Thus, Yamalube mineral, semisynthetic and synthetic oils have their own distinct characters and value. Yamaha's experience gained over many years of research and development into oil since the 1960's helps make Yamalube the best choice for your Yamaha engine.

# YAMALUBE®

EAU85450

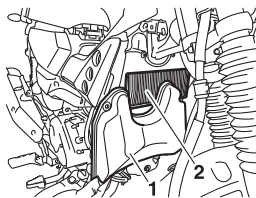
EAUB1283

### Replacing the air filter element and cleaning the check hoses

The air filter element should be replaced at the intervals specified in the periodic maintenance and lubrication chart. Replace the air filter element more frequently if you are riding in unusually wet or dusty areas. In addition, the air filter check hoses must be frequently checked and cleaned if necessary.

#### To replace the air filter element

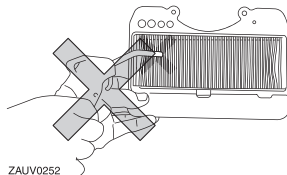
1. Remove the air filter case cover by removing the screws.



1. Air filter case cover
2. Air filter element

2. Pull the air filter element out.
3. Insert a new air filter element into the air filter case. **NOTICE: Make sure that the air filter element is properly seated in the air filter case. The engine should never be operated without the air filter element installed, otherwise the piston(s) and/or cylinder(s) may become excessively worn.**

[ECA10482]



ZAUV0252

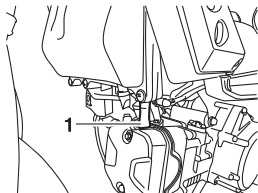
4. Install the air filter case cover by installing the screws.

#### To clean the air filter check hoses

1. Check the hoses shown for accumulated dirt, water or oil.

## Periodic maintenance and adjustment

EAU21341



1. Air filter check hose

2. If dirt, water or oil is visible, remove the hose, clean it, and then install it in its original position.

### Adjusting the engine idling speed

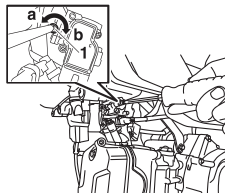
The engine idling speed must be checked and, if necessary, adjusted as follows at the intervals specified in the periodic maintenance and lubrication chart.

The engine should be warm before making this adjustment.

#### TIP

- The engine is warm when it quickly responds to the throttle.
- A diagnostic tachometer is needed to make this adjustment.

1. Attach the tachometer to the spark plug lead.
2. Check the engine idling speed and, if necessary, adjust it to specification by turning the throttle stop screw. To increase the engine idling speed, turn the screw in direction (a). To decrease the engine idling speed, turn the screw in direction (b).



1. Idle adjusting screw

**Engine idling speed:**  
1400–1600 r/min

#### TIP

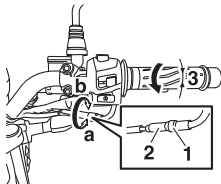
If the specified idling speed cannot be obtained as described above, have a Yamaha dealer make the adjustment.

## Periodic maintenance and adjustment

### Adjusting the throttle grip free play

EAU48434

Measure the throttle grip free play as shown.



1. Locknut
2. Adjusting nut
3. Throttle grip free play

**Throttle grip free play:**  
3.0–7.0 mm (0.12–0.28 in)

Periodically check the throttle grip free play and, if necessary, adjust it as follows.

#### TIP

The engine idling speed must be correctly adjusted before checking and adjusting the throttle grip free play.

1. Slide the rubber cover back.
2. Loosen the locknut.
3. To increase the throttle grip free play, turn the adjusting nut in direction (a). To decrease the throttle grip free play, turn the adjusting nut in direction (b).
4. Tighten the locknut and then slide the rubber cover to its original position.

### Valve clearance

EAU21403

The valves are an important engine component, and since valve clearance changes with use, they must be checked and adjusted at the intervals specified in the periodic maintenance chart. Unadjusted valves can result in improper air-fuel mixture, engine noise, and eventually engine damage. To prevent this from occurring, have your Yamaha dealer check and adjust the valve clearance at regular intervals.

#### TIP

This service must be performed when the engine is cold.

## Periodic maintenance and adjustment

EAU70052

### Tires

Tires are the only contact between the vehicle and the road. Safety in all conditions of riding depends on a relatively small area of road contact. Therefore, it is essential to maintain the tires in good condition at all times and replace them at the appropriate time with the specified tires.

### Tire air pressure

The tire air pressure should be checked and, if necessary, adjusted before each ride.

EWA10504

#### **WARNING**

Operation of this vehicle with improper tire pressure may cause severe injury or death from loss of control.

- The tire air pressure must be checked and adjusted on cold tires (i.e., when the temperature of the tires equals the ambient temperature).
- The tire air pressure must be adjusted in accordance with the riding speed and with the total

weight of rider, passenger, cargo, and accessories approved for this model.

#### **Tire air pressure (measured on cold tires):**

##### **1 person:**

Front:

150 kPa (1.50 kgf/cm<sup>2</sup>, 22 psi)

Rear:

175 kPa (1.75 kgf/cm<sup>2</sup>, 25 psi)

##### **2 persons:**

Front:

150 kPa (1.50 kgf/cm<sup>2</sup>, 22 psi)

Rear:

200 kPa (2.00 kgf/cm<sup>2</sup>, 29 psi)

#### **Maximum load:**

Vehicle:

150 kg (330 lb)

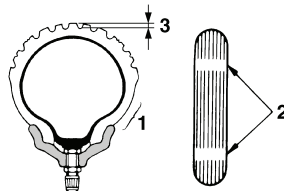
The vehicle's maximum load is the combined weight of the rider, passenger, cargo, and any accessories.

EWA10512

#### **WARNING**

Never overload your vehicle. Operation of an overloaded vehicle could cause an accident.

### Tire inspection



1. Tire sidewall
2. Tire wear indicator
3. Tire tread depth

The tires must be checked before each ride. If the tire shows crosswise lines (minimum tread depth), if the tire has a nail or glass fragments in it, or if the sidewall is cracked, have a Yamaha dealer replace the tire immediately.

#### **Minimum tire tread depth (front and rear):**

1.0 mm (0.04 in)

## Periodic maintenance and adjustment

EWA10563

### **WARNING**

- It is dangerous to ride with a worn-out tire. When a tire tread begins to show crosswise lines, have a Yamaha dealer replace the tire immediately.
- The replacement of all wheel and brake-related parts, including the tires, should be left to a Yamaha dealer, who has the necessary professional knowledge and experience.
- It is not recommended to patch a punctured tube. If unavoidable, however, patch the tube very carefully and replace it as soon as possible with a high-quality product.
- Ride at moderate speeds after changing a tire since the tire surface must first be “broken in” for it to develop its optimal characteristics.

### **Tire information**

This model is equipped with tube tires.

Tires age, even if they have not been used or have only been used occasionally. Cracking of the tread and sidewall rubber, sometimes accompanied by carcass deformation, is an evidence of ageing. Old and aged tires shall be checked by tire specialists to ascertain their suitability for further use.

EWA10462

### **WARNING**

**The front and rear tires should be of the same make and design, otherwise the handling characteristics of the vehicle may be different, which could lead to an accident.**

After extensive tests, only the tires listed below have been approved for this model by Yamaha.

#### **Front tire:**

Size:  
90/100-16 M/C 51P  
Manufacturer/model:  
IRC/GP-22

#### **Rear tire:**

Size:  
90/100-16 M/C 51P  
Manufacturer/model:  
IRC/GP-22

EAU00293

## Wheels

To maximize the performance, durability, and safe operation of your vehicle, note the following points.

- Check each wheel for cracks, deformation and other damage. If any damage is found, have the wheel inspected by your Yamaha dealer. Do not attempt to repair or straighten a bent or damaged wheel.
- For spoke wheel-equipped models, check the spokes for looseness. If any loose spokes are found, have the wheel adjusted by your Yamaha dealer. Improperly tightened spokes can cause wheel misalignment.
- Have the wheel balanced whenever the tire or tube has been replaced. An unbalanced wheel can result in adverse handling characteristics and shortened tire life.

EWA20560

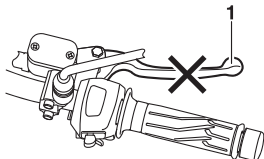
### **WARNING**

**To avoid tire slippage and personal injury, use only the specified type of tire for each wheel.**

## Periodic maintenance and adjustment

### Checking the brake lever free play

EAU37914



#### 1. No brake lever free play

There should be no free play at the brake lever end. If there is free play, have a Yamaha dealer inspect the brake system.

EWA14212

#### **WARNING**

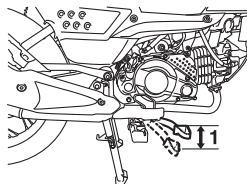
A soft or spongy feeling in the brake lever can indicate the presence of air in the hydraulic system. If there is air in the hydraulic system, have a Yamaha dealer bleed the system before operating the vehicle. Air in the hydraulic system will diminish the

braking performance, which may result in loss of control and an accident.

### Adjusting the brake pedal free play

EAU39815

Measure the brake pedal free play at the brake pedal end as shown.



#### 1. Brake pedal free play

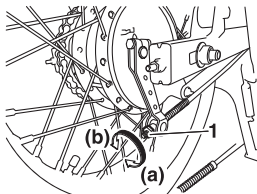
##### **Brake pedal free play:**

20.0–30.0 mm (0.79–1.18 in)

Periodically check the brake pedal free play and, if necessary, adjust it as follows.

To increase the brake pedal free play, turn the brake pedal free play adjusting nut at the brake rod in direction (a). To decrease the brake pedal free play, turn the adjusting nut in direction (b).

## Periodic maintenance and adjustment



1. Brake pedal free play adjusting nut

EWA10681

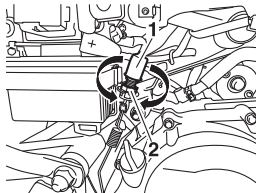
### WARNING

- After adjusting the drive chain slack or removing and installing the rear wheel, always check the brake pedal free play.
- If proper adjustment cannot be obtained as described, have a Yamaha dealer make this adjustment.
- After adjusting the brake pedal free play, check the operation of the brake light.

### Brake light switches

EAU22275

The brake light is activated by switches connected to the brake lever and brake pedal. Check that the brake light comes on just before braking takes effect. If necessary, adjust the rear brake light switch as follows.



1. Rear brake light switch
2. Rear brake light switch adjusting nut

Turn the rear brake light switch adjusting nut while holding the rear brake light switch in place. To make the brake light come on earlier, turn the adjusting nut in direction (a). To make the brake light come on later, turn the adjusting nut in direction (b).

### TIP

The front brake light switch should be serviced by a Yamaha dealer.



## Periodic maintenance and adjustment

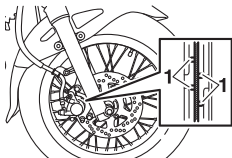
### Checking the front brake pads and rear brake shoes

EAU22382

The front brake pads and the rear brake shoes must be checked for wear at the intervals specified in the periodic maintenance and lubrication chart.

#### Front brake pads

EAU22434



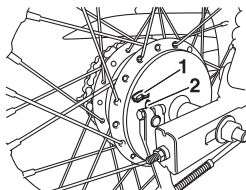
1. Brake pad wear indicator groove

Each front brake pad is provided with wear indicator grooves, which allow you to check the brake pad wear without having to disassemble the brake. To check the brake pad wear, check the wear indicator grooves. If a brake pad has worn to the point that the wear

indicator grooves have almost disappeared, have a Yamaha dealer replace the brake pads as a set.

#### Rear brake shoes

EAU22541

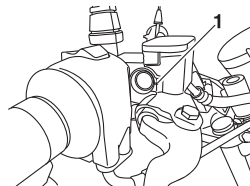


1. Brake shoe wear limit line
2. Brake shoe wear indicator

The rear brake is provided with a wear indicator, which allows you to check the brake shoe wear without having to disassemble the brake. To check the brake shoe wear, check the position of the wear indicator while applying the brake. If a brake shoe has worn to the point that the wear indicator reaches the wear limit line, have a Yamaha dealer replace the brake shoes as a set.

### Checking the brake fluid level

EAU00831



1. Minimum level mark

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

Before riding, check that the brake fluid is above the minimum level mark and replenish if necessary. A low brake fluid level may indicate worn brake pads and/or brake system leakage. If the brake fluid level is low, be sure to check the brake pads for wear and the brake system for leakage.

Observe these precautions:

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

## Periodic maintenance and adjustment

- Use only the recommended quality brake fluid, otherwise the rubber seals may deteriorate, causing leakage and poor braking performance.

### Recommended brake fluid:

YAMAHA GENUINE BRAKE FLUID  
or equivalent DOT3 or DOT4

- Refill with the same type of brake fluid. Mixing fluids may result in a harmful chemical reaction and lead to poor braking performance.
- 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.
- As the brake pads wear, it is normal for the brake fluid level to gradually go down. However, if the brake fluid level goes down suddenly, have a Yamaha dealer check the cause.

### Changing the brake fluid

Have a Yamaha dealer change the brake fluid at the intervals specified in the periodic maintenance and lubrication chart. In addition, have the oil seals of the brake master cylinder and caliper as well as the brake hose replaced at the intervals listed below or whenever they are damaged or leaking.

- Brake seals: Replace every two years.
- Brake hose: Replace every four years.

EAU22725

### Drive chain slack

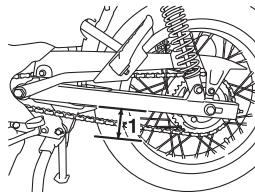
The drive chain slack should be checked before each ride and adjusted if necessary.

EAU22762

### To check the drive chain slack

EAU47684

1. Place the motorcycle on the centerstand.
2. Shift the transmission into the neutral position.
3. Remove the drive chain slack check hole cap.
4. Measure the drive chain slack as shown.



1. Drive chain slack

### Drive chain slack:

25.0–35.0 mm (0.98–1.38 in)

## Periodic maintenance and adjustment

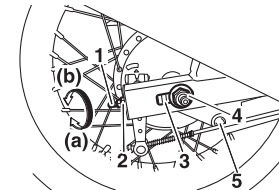
5. Install the check hole cap.
6. If the drive chain slack is incorrect, adjust it as follows. **NOTICE: Improper drive chain slack will overload the engine as well as other vital parts of the motorcycle and can lead to chain slippage or breakage. To prevent this from occurring, keep the drive chain slack within the specified limits.** [ECA10572]

EALUV0462

### To adjust the drive chain slack

Consult a Yamaha dealer before adjusting the drive chain slack.

1. Loosen the brake pedal free play adjusting nut and the brake torque rod nut.
2. Loosen the axle nut, then loosen the locknut at each end of the swingarm.

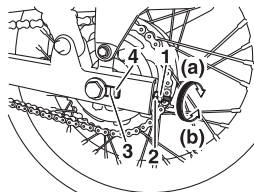


1. Locknut
2. Drive chain slack adjusting nut
3. Alignment marks
4. Axle nut
5. Brake torque rod nut

3. To tighten the drive chain, turn the drive chain slack adjusting nut at each end of the swingarm in direction (a). To loosen the drive chain, turn the adjusting nut at each end of the swingarm in direction (b), and then push the rear wheel forward.

### TIP

Using the alignment marks on each side of the swingarm, make sure that both drive chain pullers are in the same position for proper wheel alignment.



1. Locknut
2. Drive chain slack adjusting nut
3. Alignment marks
4. Drive chain puller

4. Tighten both locknuts, and then tighten the axle nut and brake torque rod nut to their specified torques.

### Tightening torques:

Locknut:

7 N·m (0.7 kgf·m, 5.2 lb·ft)

Axle nut:

35 N·m (3.5 kgf·m, 26 lb·ft)

Brake torque rod nut:

19 N·m (1.9 kgf·m, 14 lb·ft)

## Periodic maintenance and adjustment

### TIP

When tightening the axle nut, hold the wheel axle with a wrench to keep it from turning.

- Adjust the brake pedal free play. (See page 7-17.) **WARNING! After adjusting the brake pedal free play, check the operation of the brake light.** [EWA16081]
- Make sure that the drive chain pullers are in the same position, the drive chain slack is correct, and the drive chain moves smoothly.
- Install the drive chain slack check hole cap.

### Cleaning and lubricating the drive chain

EAU23018

The drive chain must be cleaned and lubricated at the intervals specified in the periodic maintenance and lubrication chart, otherwise it will quickly wear out, especially when riding in dusty or wet areas. Service the drive chain as follows.

ECA10584

### NOTICE

**The drive chain must be lubricated after washing the motorcycle, riding in the rain or riding in wet areas.**

- Remove all dirt and mud from the drive chain with a brush or cloth.

### TIP

For a thorough cleaning, have a Yamaha dealer remove the drive chain and soak it in solvent.

- Spray Yamaha chain lubricant or other suitable chain lubricant on the entire chain, making sure that all side plates and rollers have been sufficiently oiled.

### Checking and lubricating the cables

EAU23098

The operation of all control cables and the condition of the cables should be checked before each ride, and the cables and cable ends should be lubricated if necessary. If a cable is damaged or does not move smoothly, have a Yamaha dealer check or replace it. **WARNING! Damage to the outer housing of cables may result in internal rusting and cause interference with cable movement. Replace damaged cables as soon as possible to prevent unsafe conditions.** [EWA10712]

### Recommended lubricant:

Yamaha cable lubricant or other suitable cable lubricant

## Periodic maintenance and adjustment

### Checking and lubricating the throttle grip and cable end

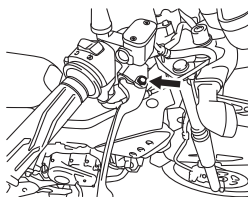
EAU1191

The operation of the throttle grip should be checked before each ride. In addition, the cable end should be lubricated by a Yamaha dealer at the intervals specified in the periodic maintenance chart.

The throttle cable is equipped with a rubber cover. Make sure that the cover is securely installed. Even though the cover is installed correctly, it does not completely protect the cable from water entry. Therefore, use care not to pour water directly onto the cover or cable when washing the vehicle. If the cable or cover becomes dirty, wipe clean with a moist cloth.

### Checking and lubricating the brake lever

EAU23155



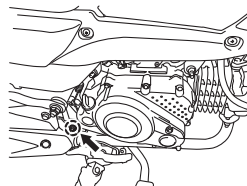
The operation of the brake lever should be checked before each ride, and the lever pivot should be lubricated if necessary.

**Recommended lubricant:**  
Silicone grease

### Checking and lubricating the brake pedal

EAU23185

The operation of the brake pedal should be checked before each ride, and the pedal pivot should be lubricated if necessary.

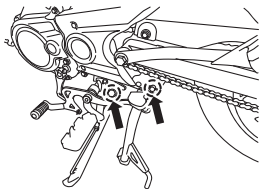


**Recommended lubricant:**  
Lithium-soap-based grease

## Periodic maintenance and adjustment

### Checking and lubricating the centerstand and sidestand

EAU23215



7

The operation of the centerstand and sidestand should be checked before each ride, and the pivots and metal-to-metal contact surfaces should be lubricated if necessary.

EWA10742

#### **WARNING**

If the centerstand or sidestand does not move up and down smoothly, have a Yamaha dealer check or repair it. Otherwise, the centerstand or sidestand could contact the ground and distract the operator, resulting in a possible loss of control.

**Recommended lubricant:**  
Lithium-soap-based grease

### Lubricating the swingarm pivots

EAUM1653

The swingarm pivots must be lubricated by a Yamaha dealer at the intervals specified in the periodic maintenance and lubrication chart.

**Recommended lubricant:**  
Lithium-soap-based grease

## Periodic maintenance and adjustment

EAU23273

### Checking the front fork

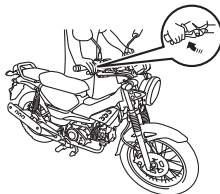
The condition and operation of the front fork must be checked as follows at the intervals specified in the periodic maintenance and lubrication chart.

#### To check the condition

Check the inner tubes for scratches, damage and excessive oil leakage.

#### To check the operation

1. Place the vehicle on a level surface and hold it in an upright position. **WARNING! To avoid injury, securely support the vehicle so there is no danger of it falling over.** [EWA10752]
2. While applying the front brake, push down hard on the handlebars several times to check if the front fork compresses and rebounds smoothly.



ECA10591

#### NOTICE

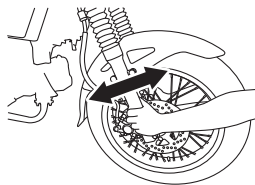
**If any damage is found or the front fork does not operate smoothly, have a Yamaha dealer check or repair it.**

EAU45512

### Checking the steering

Worn or loose steering bearings may cause danger. Therefore, the operation of the steering must be checked as follows at the intervals specified in the periodic maintenance and lubrication chart.

1. Place the vehicle on the center-stand. **WARNING! To avoid injury, securely support the vehicle so there is no danger of it falling over.** [EWA10752]
2. Hold the lower ends of the front fork legs and try to move them forward and backward. If any free play can be felt, have a Yamaha dealer check or repair the steering.

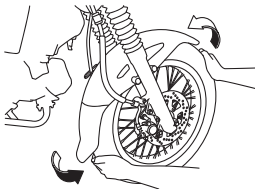


## Periodic maintenance and adjustment

### Checking the wheel bearings

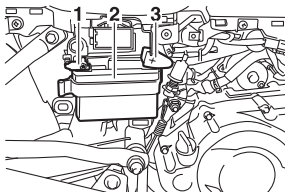
EAU23292

The front and rear wheel bearings must be checked at the intervals specified in the periodic maintenance and lubrication chart. If there is play in the wheel hub or if the wheel does not turn smoothly, have a Yamaha dealer check the wheel bearings.



### Battery

EAU2338A



1. Negative battery lead (black)
2. Battery
3. Positive battery lead (red)

The battery is located behind panel A. (See page 7-8.)

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

EWA10761



#### WARNING

- **Electrolyte is poisonous and dangerous since it contains sulfuric acid, which causes severe**

burns. Avoid any contact with skin, eyes or clothing and always shield your eyes when working near batteries. In case of contact, administer the following FIRST AID.

- **EXTERNAL:** Flush with plenty of water.
- **INTERNAL:** Drink large quantities of water or milk and immediately call a physician.
- **EYES:** Flush with water for 15 minutes and seek prompt medical attention.
- Batteries produce explosive hydrogen gas. Therefore, keep sparks, flames, cigarettes, etc., away from the battery and provide sufficient ventilation when charging it in an enclosed space.
- **KEEP THIS AND ALL BATTERIES OUT OF THE REACH OF CHILDREN.**



## Periodic maintenance and adjustment

ECA10621

### NOTICE

Never attempt to remove the battery cell seals, as this would permanently damage the battery.

### To charge the battery

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

ECA16522

### NOTICE

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

### To store the battery

1. If the vehicle will not be used for more than one month, remove the battery, fully charge it, and then place it in a cool, dry place.

**NOTICE:** When removing the battery, be sure to turn the main

switch off, then disconnect the negative lead before disconnecting the positive lead. [ECA16304]

2. If the battery will be stored for more than two months, check it at least once a month and fully charge it if necessary.
3. Fully charge the battery before installation. **NOTICE:** When installing the battery, be sure to turn the main switch off, then connect the positive lead before connecting the negative lead.

[ECA16842]

4. After installation, make sure that the battery leads are properly connected to the battery terminals.

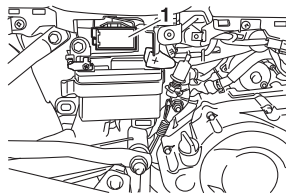
ECA16531

### NOTICE

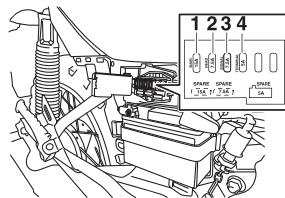
Always keep the battery charged. Storing a discharged battery can cause permanent battery damage.

EAU23465

## Replacing the fuse



1. Fuse box



1. Main fuse
2. Light fuse
3. Signaling system fuse
4. Terminal fuse

The fuse holder is located beside the battery compartment behind panel A. (See page 7-8.)

## Periodic maintenance and adjustment

If the fuse is blown, replace it as follows.

1. Turn the key to "OFF" and turn off all electrical circuits.
2. Remove the blown fuse, and then install a new fuse of the specified amperage. **WARNING! Do not use a fuse of a higher amperage rating than recommended to avoid causing extensive damage to the electrical system and possibly a fire.** [EWA15132]

### Specified fuses:

Main fuse:  
15.0 A  
Headlight fuse:  
7.5 A  
Signaling system fuse:  
7.5 A  
Terminal fuse 1:  
5.0 A

3. Turn the key to "ON" and turn on the electrical circuits to check if the devices operate.
4. If the fuse immediately blows again, have a Yamaha dealer check the electrical system.

### Replacing the headlight bulb

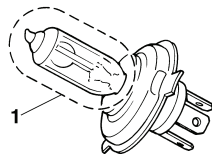
This model is equipped with a halogen bulb headlight. If the headlight bulb burns out, replace it as follows.

#### NOTICE

- Do not touch the glass part of the headlight bulb. Otherwise the luminosity and the life of the bulb may be adversely affected.
- Thoroughly clean off any dirt, oil, or fingerprints from the bulb using a cloth moistened with alcohol or thinner.
- Do not use a headlight bulb of a wattage higher than specified.
- Do not affix any type of tinted film or stickers to the headlight lens.

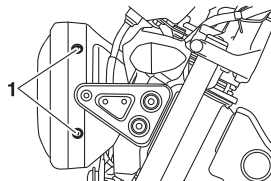
EALU2379A

ECA26690



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

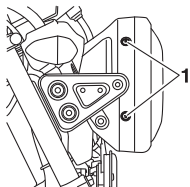
1. Remove the headlight unit by removing the screws.



1. Screw

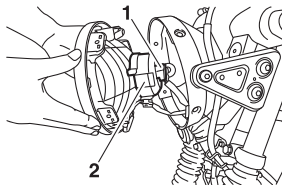
## Periodic maintenance and adjustment

EAU33417



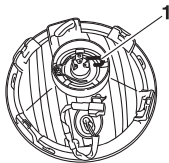
1. Screw

2. Disconnect the headlight coupler, and then remove the headlight bulb cover.



1. Headlight coupler  
2. Headlight bulb cover

3. Unhook the headlight bulb holder, and then remove the burnt-out bulb.



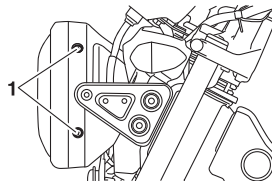
1. Headlight bulb holder

4. Place a new headlight bulb into position, and then secure it with the bulb holder.
5. Install the bulb cover, and then connect the coupler.
6. Install the headlight unit by installing the screws.
7. Have a Yamaha dealer adjust the headlight beam if necessary.

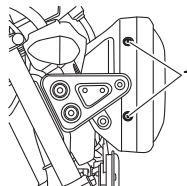
### Replacing the auxiliary light bulb

If the auxiliary light bulb burns out, replace it as follows.

1. Remove the headlight unit by removing the screws.



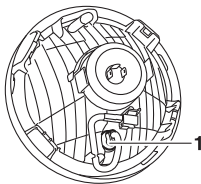
1. Screw



1. Screw

## Periodic maintenance and adjustment

2. Remove the socket (together with the bulb) by pushing it in and turning it counterclockwise.



1. Auxiliary light bulb socket

### Tail/brake light

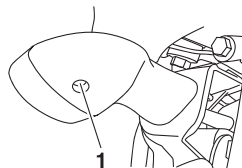
If the tail/brake light does not come on, have a Yamaha dealer check its electrical circuit or replace the bulb.

EAUJ43041

### Replacing a turn signal light bulb

EAUJ24205

1. Remove the turn signal light lens by removing the screw.



1. Screw

3. Remove the burnt-out bulb by pushing it in and turning it counterclockwise.
4. Insert a new bulb into the socket, push it in, and then turn it clockwise until it stops.
5. Install the socket (together with the bulb) by pushing it in and turning it clockwise until it stops.
6. Install the headlight unit by installing the screws.

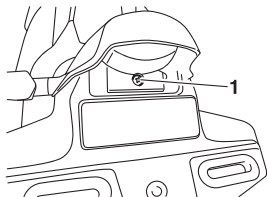
2. Remove the burnt-out bulb by pushing it in and turning it counterclockwise.
3. Insert a new bulb into the socket, push it in, and then turn it clockwise until it stops.
4. Install the lens by installing the screw. **NOTICE: Do not over-tighten the screw, otherwise the lens may break.** [ECA11192]

## Periodic maintenance and adjustment

### Replacing the license plate light bulb

EAUM3511

1. Remove the license plate light unit by removing the screw.



1. Screw

2. Remove the license plate light bulb socket (together with the bulb) by pulling it out.
3. Remove the burnt-out bulb by pulling it out.
4. Insert a new bulb into the socket.
5. Install the socket (together with the bulb) by pushing it in.
6. Install the license plate light unit by installing the screw.

### Troubleshooting

EAU25853

Although Yamaha motorcycles receive a thorough inspection before shipment from the factory, trouble may occur during operation. Any problem in the fuel, compression, or ignition systems, for example, can cause poor starting and loss of power.

The following troubleshooting chart represents a quick and easy procedure for checking these vital systems yourself. However, should your motorcycle require any repair, take it to a Yamaha dealer, whose skilled technicians have the necessary tools, experience, and know-how to service the motorcycle properly.

Use only genuine Yamaha replacement parts. Imitation parts may look like Yamaha parts, but they are often inferior, have a shorter service life and can lead to expensive repair bills.

EWA15142



#### WARNING

**When checking the fuel system, do not smoke, and make sure there are no open flames or sparks in the area, including pilot lights from water**

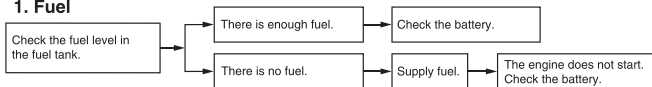
**heaters or furnaces. Gasoline or gasoline vapors can ignite or explode, causing severe injury or property damage.**

# Periodic maintenance and adjustment

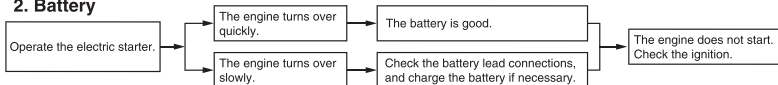
EAUT1985

## Troubleshooting chart

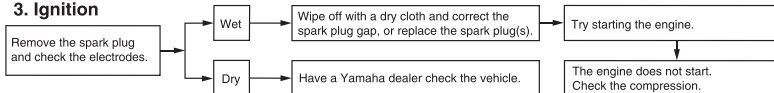
### 1. Fuel



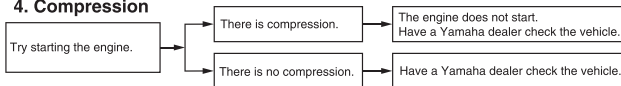
### 2. Battery



### 3. Ignition



### 4. Compression



## Motorcycle care and storage

EAL084992

### Care

Frequent, thorough cleaning of the vehicle will not only enhance its appearance but also will improve its general performance and extend the useful life of many components. Washing, cleaning, and polishing will also give you a chance to inspect the condition of the vehicle more frequently. Be sure to wash the vehicle after riding in the rain or near the sea, because salt is corrosive to metals.

### TIP

- The roads of heavy snowfall areas may be sprayed with salt as a de-icing method. This salt can stay on the roads well into spring, so be sure to wash the underside and chassis parts after riding in such areas.
- Genuine Yamaha care and maintenance products are sold under the YAMALUBE brand in many markets worldwide.
- See your Yamaha dealer for additional cleaning tips.

ECA26280

### NOTICE

**Improper cleaning can cause cosmetic and mechanical damage. Do not use:**

- **high-pressure washers or steam-jet cleaners. Excessive water pressure may cause water seepage and deterioration of wheel bearings, brakes, transmission seals and electrical devices. Avoid high-pressure**

**detergent applications such as those available in coin-operated car washers.**

- **harsh chemicals, including strong acidic wheel cleaners, especially on spoke or magnesium wheels.**
- **harsh chemicals, abrasive cleaning compounds, or wax on matte-finished parts. Brushes can scratch and damage the matte-finish, use soft sponge or towel only.**
- **towels, sponges, or brushes contaminated with abrasive cleaning products or strong chemicals such as, solvents, gasoline, rust removers, brake fluid, or antifreeze, etc.**

### Before washing

1. Park the vehicle out of direct sunlight and allow it to cool. This will help avoid water spots.
2. Make sure all caps, covers, electrical couplers and connectors are tightly installed.
3. Cover the muffler end with a plastic bag and a strong rubber band.

## Motorcycle care and storage

4. Pre-soak stubborn stains like insects or bird droppings with a wet towel for a few minutes.
5. Remove road grime and oil stains with a quality degreasing agent and a plastic-bristle brush or sponge. **NOTICE: Do not use degreasing agent on areas requiring lubrication such as seals, gaskets, and wheel axles. Follow product instructions.**

[ECA26290]

### Washing

1. Rinse off any degreaser and spray down the vehicle with a garden hose. Use only enough pressure to do the job. Avoid spraying water directly into the muffler, instrument panel, air inlet, or other inner areas such as underseat storage compartments.
2. Wash the vehicle with a quality automotive-type detergent mixed with cool water and a soft, clean towel or sponge. Use an old toothbrush or plastic-bristle brush for hard-to-reach places. **NOTICE: Use cold water if the vehicle has**

**been exposed to salt. Warm water will increase salt's corrosive properties.** [ECA26301]

3. For windshield-equipped vehicles: Clean the windshield with a soft towel or sponge dampened with water and a pH neutral detergent. If necessary, use a high-quality windshield cleaner or polish for motorcycles. **NOTICE: Never use any strong chemicals to clean the windshield. Additionally, some cleaning compounds for plastic may scratch the windshield, so be sure to test all cleaning products before general application.** [ECA26310]
4. Rinse off thoroughly with clean water. Be sure to remove all detergent residues, as they can be harmful to plastic parts.

### After washing

1. Dry the vehicle with a chamois or absorbent towel, preferably microfiber terrycloth.
2. For drive chain-equipped models: Dry and then lubricate the drive chain to prevent rust.

3. Use a chrome polish to shine chrome, aluminum, and stainless steel parts. Often the thermally induced discoloring of stainless steel exhaust systems can be removed through polishing.
4. Apply a corrosion protection spray on all metal parts including chrome or nickel-plated surfaces. **WARNING! Do not apply silicone or oil spray to seats, hand grips, rubber foot pegs or tire treads. Otherwise these parts will become slippery, which could cause loss of control. Thoroughly clean the surfaces of these parts before operating the vehicle.** [EWA20651]
5. Treat rubber, vinyl, and unpainted plastic parts with a suitable care product.
6. Touch up minor paint damage caused by stones, etc.
7. Wax all painted surfaces using a non-abrasive wax or use a detail spray for motorcycles.



## Motorcycle care and storage

EALU83472

8. When finished cleaning, start the engine and let it idle for several minutes to help dry any remaining moisture.
9. If the headlight lens has fogged up, start the engine and turn on the headlight to help remove the moisture.
10. Let the vehicle dry completely before storing or covering it.

ECA26320

### NOTICE

- Do not apply wax to rubber or unpainted plastic parts.
- Do not use abrasive polishing compounds as they will wear away the paint.
- Apply sprays and wax sparingly. Wipe off excess afterwards.

EWA20660

### WARNING

Contaminants left on the brakes or tires can cause loss of control.

- Make sure there is no lubricant or wax on the brakes or tires.
- If necessary, wash the tires with warm water and a mild detergent.

- If necessary, clean the brake discs and pads with brake cleaner or acetone.
- Before riding at higher speeds, test the vehicle's braking performance and cornering behavior.

### Storage

Always store the vehicle in a cool, dry place. If necessary, protect it against dust with a porous cover. Be sure the engine and the exhaust system are cool before covering the vehicle. If the vehicle often sits for weeks at a time between uses, the use of a quality fuel stabilizer is recommended after each fill-up.

ECA21170

### NOTICE

- Storing the vehicle in a poorly ventilated room or covering it with a tarp, while it is still wet, will allow water and humidity to seep in and cause rust.
- To prevent corrosion, avoid damp cellars, stables (because of the presence of ammonia) and areas where strong chemicals are stored.

### Long term storage

Before storing the vehicle long term (60 days or more):

## Motorcycle care and storage

1. Make all necessary repairs and perform any outstanding maintenance.
2. Follow all instructions in the Care section of this chapter.
3. Fill up the fuel tank, adding fuel stabilizer according to product instructions. Run the engine for 5 minutes to distribute treated fuel through the fuel system.
4. For vehicles equipped with a fuel cock: Turn the fuel cock lever to the off position.
5. For vehicles with a carburetor: To prevent fuel deposits from building up, drain the fuel in the carburetor float chamber into a clean container. Retighten the drain bolt and pour the fuel back into the fuel tank.
6. Use a quality engine fogging oil according to product instructions to protect internal engine components from corrosion. If engine fogging oil is not available, perform the following steps for each cylinder:
  - a. Remove the spark plug cap and spark plug.

- b. Pour a teaspoonful of engine oil into the spark plug bore.
- c. Install the spark plug cap onto the spark plug, and then place the spark plug on the cylinder head so that the electrodes are grounded. (This will limit sparking during the next step.)
- d. Turn the engine over several times with the starter. (This will coat the cylinder wall with oil.)  
**WARNING! To prevent damage or injury from sparking, make sure to ground the spark plug electrodes while turning the engine over.**

[EWA10952]

- e. Remove the spark plug cap from the spark plug, and then install the spark plug and the spark plug cap.
7. Lubricate all control cables, pivots, levers and pedals, as well as the sidestand and centerstand (if equipped).
8. Check and correct the tire air pressure, and then lift the vehicle so that all wheels are off the ground. Otherwise, turn the

wheels a little once a month in order to prevent the tires from becoming degraded in one spot.

9. Cover the muffler outlet with a plastic bag to prevent moisture from entering it.
10. Remove the battery and fully charge it, or attach a maintenance charger to keep the battery optimally charged. **NOTICE: Confirm that the battery and its charger are compatible. Do not charge a VRLA battery with a conventional charger.** [ECA26330]

### TIP

- If the battery will be removed, charge it once a month and store it in a temperate location between 0-30 °C (32-90 °F).
- See page 7-26 for more information on charging and storing the battery.

# Specifications

## Dimensions:

- Overall length:  
1980 mm (78.0 in)
- Overall width:  
805 mm (31.7 in)
- Overall height:  
1050 mm (41.3 in)
- Seat height:  
795 mm (31.3 in)
- Wheelbase:  
1280 mm (50.4 in)
- Ground clearance:  
190 mm (7.48 in)
- Minimum turning radius:  
2.0 m (6.56 ft)

## Weight:

- Curb weight:  
107 kg (236 lb)

## Engine:

- Combustion cycle:  
4-stroke
- Cooling system:  
Air cooled
- Valve train:  
SOHC
- Number of cylinders:  
Single cylinder
- Displacement:  
114 cm<sup>3</sup>
- Bore x stroke:  
50.0 x 57.9 mm (1.97 x 2.28 in)
- Starting system:  
Electric starter

## Engine oil:

Recommended brand:



SAE viscosity grades:

10W-40

Recommended engine oil grade:

API service SG type or higher, JASO standard MA

Engine oil quantity:

Oil change:

0.80 L (0.85 US qt, 0.70 Imp.qt)

With oil filter removal:

0.85 L (0.90 US qt, 0.75 Imp.qt)

Quantity (disassembled):

1.0 L (1.1 US qt, 0.9 Imp.qt)

## Fuel:

Recommended fuel:

Unleaded gasoline (E10 to E20 only)

Octane number (RON):

90

Fuel tank capacity:

5.1 L (1.3 US gal, 1.1 Imp.gal)

Fuel reserve amount:

0.5 L (0.15 US gal, 0.12 Imp.gal)

## Fuel injection:

Throttle body:

ID mark:

BPC1

## Drivetrain:

Gear ratio:

1st:

2.833 (34/12)

2nd:

1.875 (30/16)

3rd:

1.353 (23/17)

4th:

1.045 (23/22)

## Front tire:

Type:

With tube

Size:

90/100-16 M/C 51P

Manufacturer/model:

IRC/GP-22

## Rear tire:

Type:

With tube

Size:

90/100-16 M/C 51P

Manufacturer/model:

IRC/GP-22

## Loading:

Maximum load:

150 kg (330 lb)

(Total weight of rider, passenger, cargo and accessories)

## Front brake:

Type:

Hydraulic single disc brake

# Specifications

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## Rear brake:

Type:

Mechanical leading trailing drum brake

License plate light:

5.0 W

## Front suspension:

Type:

Telescopic fork

## Rear suspension:

Type:

Swingarm

## Electrical system:

System voltage:

12 V

## Battery:

Model:

GTZ4V

Voltage, capacity:

12 V, 3.0 Ah (10 HR)

Model:

PTZ4V

## Headlight:

Bulb type:

Halogen bulb

## Bulb wattage:

Headlight:

HS1, 35.0 W/35.0 W

Brake/tail light:

21.0 W/5.0 W

Front turn signal light:

10.0 W

Rear turn signal light:

10.0 W

Auxiliary light:

5.0 W

### Identification numbers

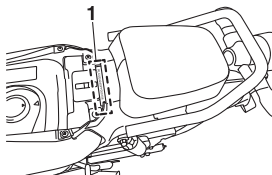
Record the vehicle identification number and the engine serial number in the spaces provided below for assistance when ordering spare parts from a Yamaha dealer or for reference in case the vehicle is stolen.

VEHICLE IDENTIFICATION NUMBER:

ENGINE SERIAL NUMBER:

EAU26366

### Vehicle identification number



1. Vehicle identification number

The vehicle identification number is stamped into the frame.

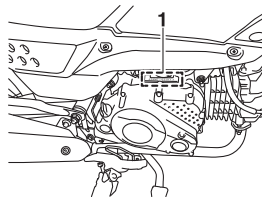
#### TIP

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

EAU26411

### Engine serial number

EAU26442



1. Engine serial number

The engine serial number is stamped into the crankcase.

# Consumer information

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EAU1020

## Use of your data

This is a brief summary of how Yamaha (Yamaha Motor Co. Ltd., and the local subsidiaries) uses your data. For more details for Yamaha's use of your data, please see our Privacy Policy.

<https://global.yamaha-motor.com/en/privacy/>

## What data we collect? and How we collect your data?

This vehicle collects three types of data through integrated Engine Control Units (ECU):

(1) Vehicle Identification Number (VIN); (2) live data showing the performance of the vehicle such as engine/motor operating state, vehicle speed, mileage; and (3) other data showing the status of the vehicle such as diagnostic trouble code (DTC). The collected data will be uploaded to server at Yamaha Motor Co., Ltd. by attaching a special Yamaha diagnostic tool to the vehicle, only when maintenance checks or service procedures are performed.

## How will we use your data?

Yamaha use collected data from your vehicle, (1) to conduct adequate maintenance service including diagnostics, (2) to implement proper warranty claim judgement, (3) to conduct research and development of vehicle, (4) to provide and improve quality of products, features, and services, (5) to ensure our business purpose, and (6) to comply with requirements of laws and regulations.

## How we share your data?

10

We may share your data with: (i) our subsidiaries, affiliates, and business partners; (ii) dealers and distributors in your country or region, and (iii) contractors within the scope necessary to achieve the purpose of use described above.

## How to contact us

Any questions or complaints regarding the processing of your Personal Data can be submitted in writing to the local subsidiaries.

<https://global.yamaha-motor.com/link/>

## Consumer information

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The **SOLE PURPOSE** of above provided contact information is **TO RESPOND DATA PROCESSING INQUIRY** AND OTHER KINDS OF INQUIRIES **WILL NOT BE RESPONDED**. Please provide the following information for the proper handling of your inquiry: **(1) Your Name; (2) Your Email Address; (3) Your Country of Residence; and (4) Your VIN**. We will use your personal information provided only for the purpose of supporting your data processing inquiry.

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