



OWNER'S MANUAL

**⚠ Read this manual carefully
before operating this vehicle.**

EXETER

MOTORCYCLE

T155-A

BWK-F8199-E0

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

Welcome to the Yamaha world of motorcycling!

As the owner of the T155-A, 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 T155-A. 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.

 **WARNING**

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

Important manual information

EAU10134

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

| | |
|--|---|
|  | 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. |
|  | A WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury. |
|  | A NOTICE indicates special precautions that must be taken to avoid damage to the vehicle or other property. |
| TIP | A TIP provides key information to make procedures easier or clearer. |

*Product and specifications are subject to change without notice.

EAU0012

**T155-A
OWNER'S MANUAL
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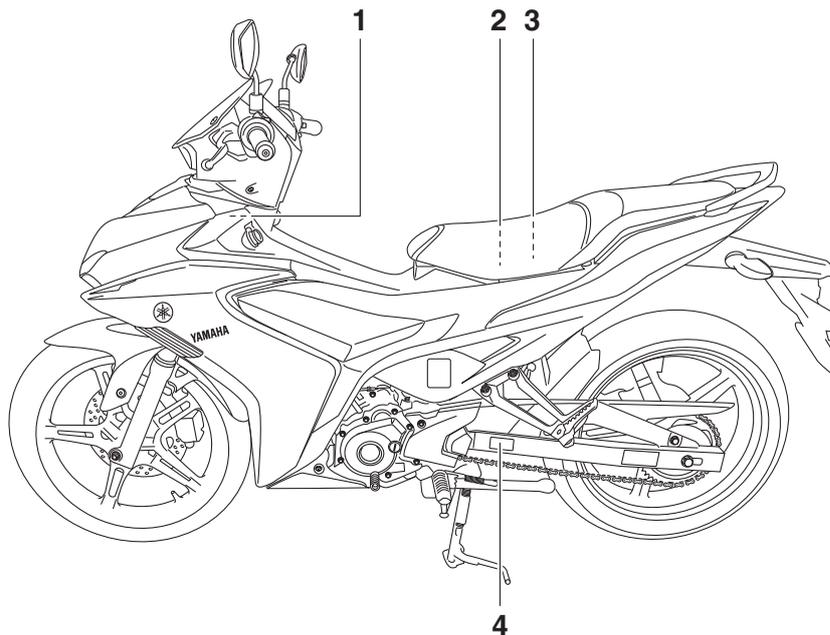
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Location of important labels

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

อาจถึงตายหรือพิการ หากไม่สวม
หมวกนิรภัย และไม่ควรถูกเด็กที่เท้า
ยังไม่ถึงที่วางเท้าโดยสาร

2

 คำเตือน
กรุณาย่านคู่มือ
ผู้ใช้รถจักรยานยนต์อย่างละเอียด
ก่อนการใช้งานรถจักรยานยนต์
B15-F1568-00

3

|  100kPa=1bar |  kPa,psi | kPa,psi |
|--|--|---------|
|  | 150,22 | 175,25 |
|  | 150,22 | 200,29 |

BKW-F1668-00

1

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.

- Never operate a motorcycle without proper training or instruction. Take a training course. Beginners should receive training from a certified instructor. Contact an authorized motorcycle dealer to find out about the training courses nearest you.

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 6-1 for a list of pre-operation checks.

- This motorcycle is designed to carry the operator and a passenger.
- 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.
- Never maintain a motorcycle without proper knowledge. Contact an authorized motorcycle dealer to inform you on basic motorcycle maintenance. Certain maintenance can only be carried out by certified staff.

- Many accidents involve inexperienced operators. In fact, many operators who have been involved in accidents do not even have a current motorcycle 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 Apparel

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

- 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, heavy boots, 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, footrests, 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.

Safety information

2

Avoid Carbon Monoxide Poisoning

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

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

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

- Do not run engine outdoors where engine exhaust can be drawn into a building through openings such as windows and doors.

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.

Maximum load:
150 kg (331 lb)

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. These items, including such cargo as sleeping bags, duffel bags, or

tents, 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

Safety information

2

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 may not be appropriate. See page 8-16 for tire specifications and for information on servicing and 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.
- Check that the fuel cock (if equipped) is in the off position and that there are no fuel leaks.
- Shift the transmission into gear (for models with a manual transmission).
- 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.

Further safe-riding points

EAU57610

- 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

EAUU0033

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.

Correct usage



ZAUU0003

Wrong usage



ZAUU0007

Types of helmets and their usage

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

Safety information

2



ZAUU0004



ZAUU0006

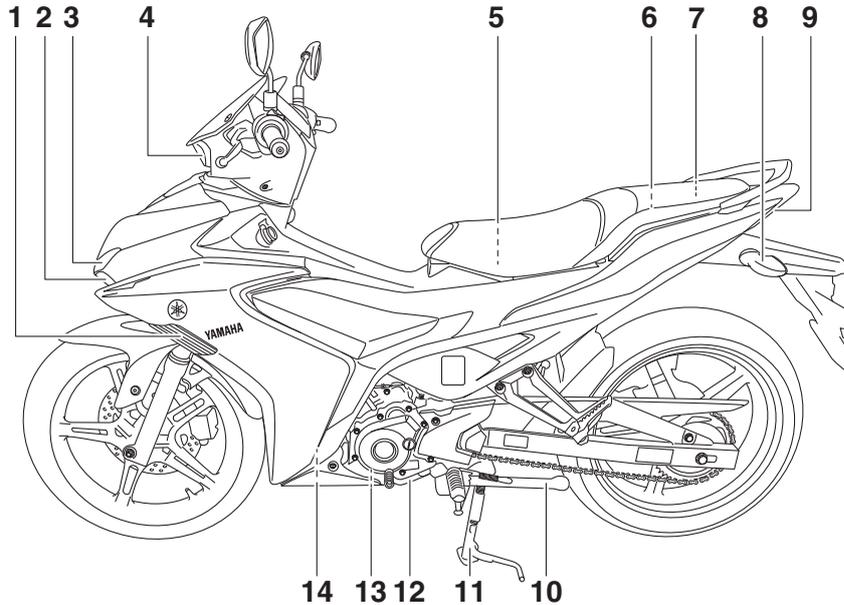
- Full-type: use only for riding at low to mid-range speeds



ZAUU0005

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

Left view



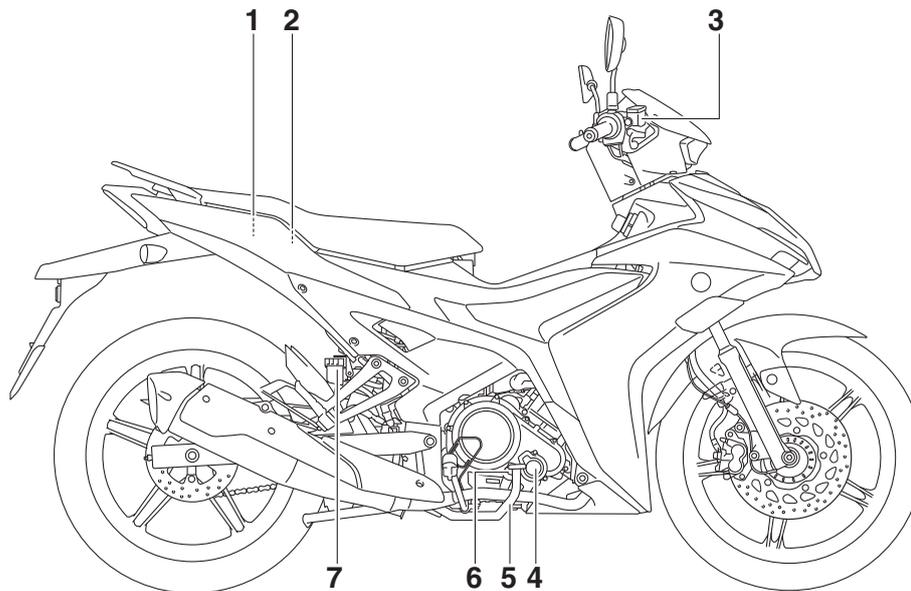
1. Front turn signal light (page 8-32)
2. Headlight (high beam)
3. Auxiliary light (page 8-32)
4. Headlight (low beam)
5. Air filter element (page 8-14)
6. Battery (page 8-29)
7. Tool kit (page 8-1)
8. Rear turn signal light (page 8-33)

9. Tail/brake light
10. Centerstand (page 8-27)
11. Sidestand (page 5-14)
12. Shift pedal (page 5-8)
13. Engine oil drain bolt (page 8-10)
14. Coolant reservoir (page 8-13)

Description

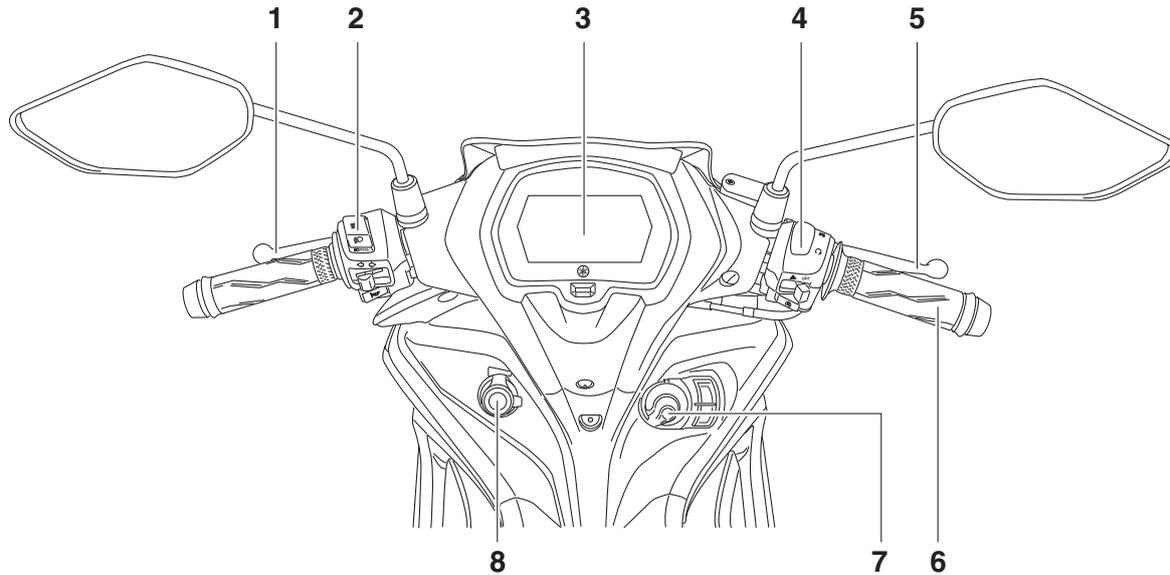
EAU10421

Right view



1. Fuel tank cap (page 5-9)
2. Fuses (page 8-31)
3. Front brake fluid reservoir (page 8-22)
4. Engine oil filter element (page 8-10)
5. Brake pedal (page 5-9)
6. Dipstick (page 8-10)
7. Rear brake fluid reservoir (page 8-22)

Controls and instruments



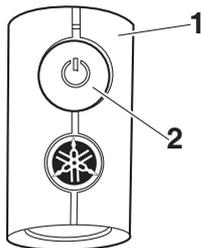
1. Clutch lever (page 5-8)
2. Left handlebar switches (page 5-7)
3. Multi-function display (page 5-2)
4. Right handlebar switches (page 5-7)
5. Brake lever (page 5-8)
6. Throttle grip (page 8-15)
7. Main switch/steering lock
8. Power outlet (page 5-13)

Smart key system

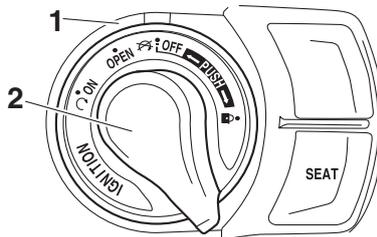
EAU76444

Smart key system

The smart key system enables you to operate the vehicle without using a mechanical key. In addition, there is an answer-back function to help you locate the vehicle in a parking lot. (See page 4-5.)



1. Smart key
2. Smart key button

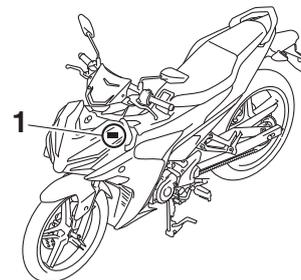


1. Main switch
2. Main switch knob

EWA14704

WARNING

- Keep implanted pacemakers or cardiac defibrillators, as well as other electric medical devices away from the vehicle mounted antenna (see illustration).
- Radio waves transmitted by the antenna may affect the operation of such devices when close by.
- If you have an electric medical device, consult a doctor or the device manufacturer before using this vehicle.



1. Vehicle mounted antenna

ECA24080

NOTICE

The smart key system uses weak radio waves. The smart key system may not work in the following situations.

- The smart key is placed in a location exposed to strong radio waves or other electromagnetic noise
- There are facilities nearby that are emitting strong radio waves (TV or radio towers, power plants, broadcasting stations, airports, etc.)

- You are carrying or using communication equipment such as radios or mobile phones in close proximity of the smart key
- The smart key is in contact with or covered by a metallic object
- Other vehicles equipped with a smart key system are nearby

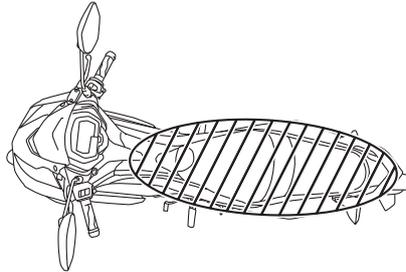
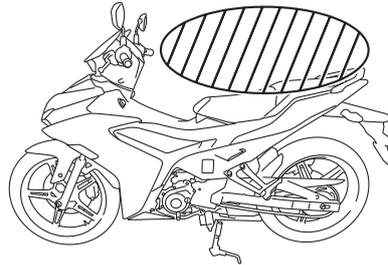
In such situations, move the smart key to another location and perform the operation again. If it still does not work, operate the vehicle in emergency mode. (See page 8-40.)

TIP _____

To preserve vehicle battery power, the smart key system turns off approximately 9 days after the vehicle was last used (the answer-back function is disabled). In this situation, simply push the main switch knob to turn the smart key system back on.

Operating range of the smart key system ^{EAU76453}

The approximate operating range of the smart key system is shown below.



If the smart key is turned off, the vehicle will not recognize the smart key even if it is within operating range. If the smart key battery is discharged, the

smart key system may not work or its operating range may become very short.

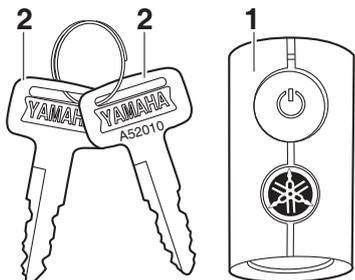
TIP _____

- Do not place the smart key in a storage compartment.
- Always carry the smart key with you.
- Turn the smart key off when leaving the vehicle.

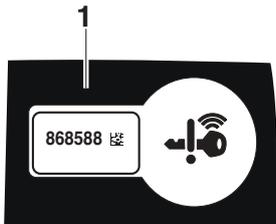
Smart key system

Handling of the smart key and mechanical keys

EAUN2460



1. Smart key
2. Mechanical key



1. Identification number card

EWA17952

WARNING

- The smart key should be carried with you. Do not store it on the vehicle.
- When the smart key is within operating range, exercise due care because other people not carrying the smart key can start the engine and operate the vehicle.

Included with the vehicle is one smart key, two mechanical keys, and one identification number card. Keep one mechanical key and the identification number card in a safe place separate from the vehicle.

If the vehicle battery is discharged, the mechanical key can be used to open the seat to charge or replace the battery. Therefore it is recommended that you carry one mechanical key together with the smart key.

If the smart key and the smart key system identification number are both lost or damaged, the entire smart key system will need to be replaced. To prevent this, it is recommended that you

write down the identification number in case the identification number card is lost.

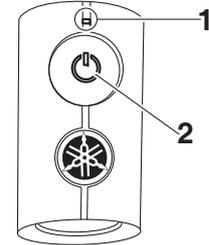
ECA21573

NOTICE

The smart key has precision electronic components. Observe the following precautions to prevent possible malfunction or damage.

- Do not place or store the smart key in a storage compartment. The smart key may be damaged from road vibrations or excessive heat.
- Do not drop, bend, or subject the smart key to strong impacts.
- Do not submerge the smart key in water or other liquids.
- Do not place heavy items or excessive stress on the smart key.
- Do not leave the smart key in a place exposed to direct sunlight, high temperature or high humidity.
- Do not grind or attempt to modify the smart key.

Smart key



1. Smart key indicator light
2. Smart key button

⚠ WARNING

- **The smart key should be carried with you. Do not store it on the vehicle.**
- **When the smart key is within operating range, exercise due care because other people not carrying the smart key can start the engine and operate the vehicle.**

- **Keep the smart key away from strong magnetic fields and magnetic objects such as key holders, TVs, and computers.**
- **Keep the smart key away from electric medical equipment.**
- **Do not allow oils, polishing agents, fuel, or any strong chemicals to come in contact with the smart key. The smart key body may become discolored or cracked.**

TIP

- The smart key battery life is approximately two years, but this may vary according to operating conditions.
- Replace the smart key battery when the smart key system indicator light flashes for 20 seconds when the vehicle is turned on, or when the smart key indicator light does not come on when the smart key button is pushed. (See page 4-6.) After changing the smart key battery, if the smart key system

still does not operate, check the vehicle battery and then have a Yamaha dealer check the vehicle.

- If the smart key continually receives radio waves, the smart key battery will discharge quickly. (For example, when placed in the vicinity of electrical products such as televisions, radios, or computers.)
- You can register up to six smart keys for the same vehicle. See a Yamaha dealer regarding spare smart keys.
- If a smart key is lost, contact a Yamaha dealer immediately to prevent the vehicle from being stolen, etc.

Smart key system

4

To turn the smart key on or off

Push the smart key button for approximately 1 second to turn the smart key on or off. When the smart key is turned off, the vehicle cannot be operated even if the smart key is within operating range. To operate the vehicle, turn the smart key on and bring it within operating range.

To check whether the smart key is turned on or off

Push the smart key button to confirm the current operating status of the smart key.

If the smart key indicator light:

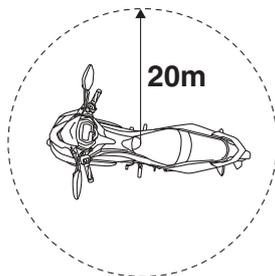
- Comes on quickly for 0.1 seconds: The smart key is turned on.
- Comes on slowly for 0.5 seconds: The smart key is turned off.

Remote answer-back function

Push the smart key button to operate the answer-back function remotely. The beeper will sound twice and all of the turn signal lights will flash twice. This feature is convenient for locating your vehicle in a parking lot and other areas.

Operating range of the answer-back function

The approximate operating range of the answer-back function is as shown.



As the smart key system uses weak radio waves, the operating range may be affected by the surrounding environment.

To turn the answer-back beeper on or off

The beeper, which sounds when the answer-back function is operated, can be turned on or off according to the following procedure.

1. Turn the smart key on and bring it within operating range.

2. Turn the main switch to “OFF”, and then push the main switch knob once.
3. Within 9 seconds of pushing the knob, push and hold the knob again for 5 seconds.
4. When the beeper sounds, the setting is complete.

If the beeper:

- Sounds twice: The beeper is turned off.
- Sounds once: The beeper is turned on.

Replacing the smart key battery

EAUN2717

Replace the battery in the following situations.

- The smart key system indicator light flashes for about 20 seconds when the power of the vehicle is turned on.
- The answer-back function does not operate when the smart key button is pushed.



1. Smart key system indicator light “”

EWA20632

WARNING

Danger of explosion if battery is incorrectly replaced

- Replace only with the same or equivalent type.

- Please check and obey all local laws and regulations for the disposal of batteries or accumulations.
- Never dispose of battery in fire or mechanical crushing or cutting.
- If battery is incorrectly discarded or heated to high temperature (100 °C (212 °F) or higher), gas may be generated inside battery, causing electrolyte leak, internal short circuit, heat generation, explosion and violent flaring.

Do not expose Hand Unit to excessive heat such as sunshine, fire or the like.

Do not ingest the battery, Chemical Burn Hazard

- This product contains a coin/button cell battery. If the coin/button cell battery is swallowed or placed inside any part of the body, it can cause severe internal burns in just 2 hours

and can lead to death. Keep new and used batteries away from children.

- If the battery compartment does not close securely, stop using the product and keep it away from children.
- If you think batteries might have been swallowed or placed inside any part of the body, seek immediate medical action.

ECA15785

NOTICE

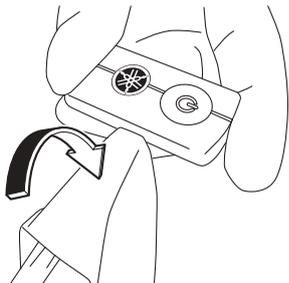
- Use a cloth when opening the smart key case with a screwdriver. Direct contact with hard objects may damage or scratch the smart key.
- Take precautions to prevent the waterproof seal from being damaged or contaminated by dirt.
- Do not touch the internal circuits and terminals. This may cause malfunctions.
- Do not apply excessive force to the smart key when replacing the battery.

Smart key system

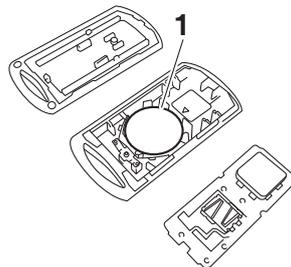
- Make sure the battery is installed correctly. Confirm the direction of the positive “+” side of the battery.

To replace the smart key battery

1. Open the smart key case as shown.



2. Remove the battery.



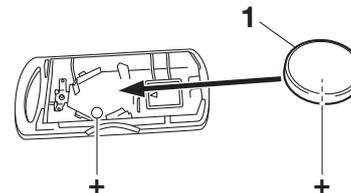
1. Battery

TIP

Dispose of the removed battery in accordance with local regulations.

3. Note the polarity of the battery and install it with the positive “+” side facing downwards as shown.

Specified battery:
CR2032

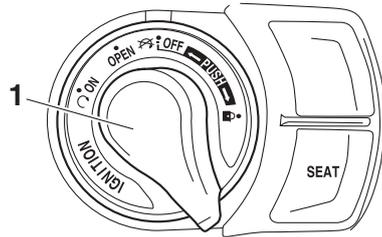


1. Battery

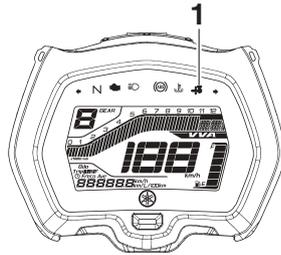
4. Gently snap the smart key case closed.

Main switch

EAU78883



1. Main switch knob



1. Smart key system indicator light “”

The main switch is used to turn the vehicle power on and off, lock and unlock the steering, and open the seat. After pushing the main switch knob (and confirmation with the smart key has

taken place), the main switch can be turned while the smart key system indicator light is on (approximately 4 seconds).

WARNING

EWA18720

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

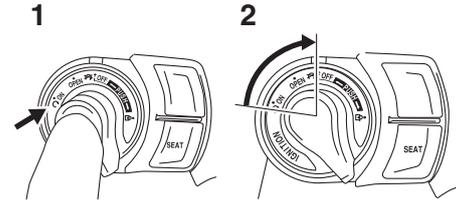
TIP

Do not push the main switch knob repeatedly or turn the main switch back and forth excessively (beyond normal use). To protect the main switch from damage, the smart key system will temporarily disable, and the smart key system indicator light will flash. If this occurs, wait until the indicator light stops flashing, and then operate the main switch.

The main switch positions are described below.

ON

EAU76502



1. Push.
2. Turn.

All electrical circuits are supplied with power, and the engine can be started.

To turn the vehicle power on

1. Turn the smart key on and bring it within operating range.
2. Push the main switch knob and the smart key indicator light will come on for approximately 4 seconds.
3. While the smart key system indicator light is on, turn the main switch to “ON”. All of the turn signal lights will flash twice and the vehicle power will turn on.

Smart key system

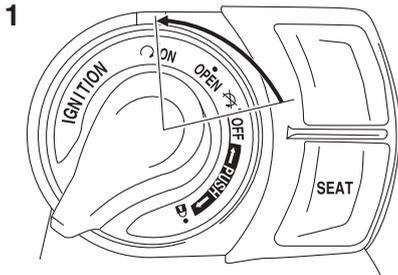
TIP

- If the vehicle battery voltage is low, the turn signal lights will not flash.
- See “Emergency mode” on page 8-40 for information on turning the vehicle power on without the smart key.

4

OFF

EAU76511



1. Turn.

All electrical systems are off.

To turn the vehicle power off

1. With the smart key turned on and within operating range, turn the main switch to “OFF”.

2. The turn signal lights flash once and the vehicle power turns off.

TIP

When the main switch is turned to “OFF” but the smart key cannot be confirmed (the smart key is either outside operation range or has been turned off), the beeper will sound for 3 seconds and the smart key system indicator light will flash for 30 seconds.

- During this 30 seconds, the main switch can be freely operated.
- After 30 seconds, the vehicle power will turn off automatically.
- To turn the vehicle power off immediately, push the main switch knob four times within 2 seconds.

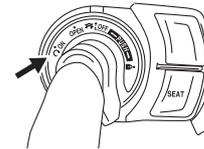
EAU11080

OPEN (open)

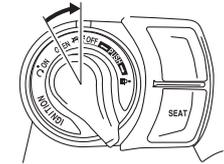
The seat can be opened.

1. With the smart key on and within operating range, push the main switch knob.
2. While the smart key system indicator light is on, turn the main switch to “OPEN”.

1

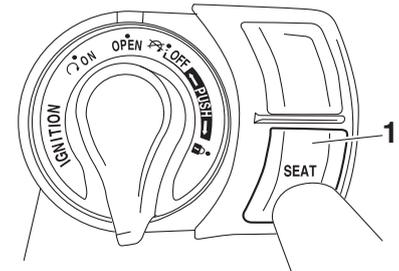


2



1. Push.
2. Turn.

To open the seat



1. “SEAT” button

Push the “SEAT” button, and then lift the rear of the seat.

To close the seat, push down on the rear to lock it in position.

TIP

- Make sure that the seat is securely closed before starting off.
- The seat can also be opened with the mechanical key. (See page 5-13.)

Open position reminder

To prevent you from accidentally leaving the vehicle unlocked by walking away with the main switch still in the “OPEN” position, the smart key system beeper will sound under the following conditions.

- When the main switch has been in the open position for 3 minutes
- If the smart key is turned off while the main switch is in the open position
- If you walk out of range of the smart key system with the main switch in the open position

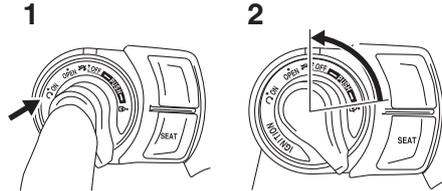
If the beeper sounds after 3 minutes, turn the main switch to “OFF” or “”. If the beeper sounds because the smart key was turned off or moved out of range, turn the smart key on and walk back into range.

TIP

The beeper will turn off after 1 minute.

EAU76521

“” (lock)



1. Push.
2. Turn.

The steering is locked and all electrical systems are off.

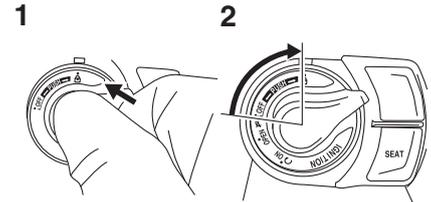
To lock the steering

1. Turn the handlebar all the way to the left.
2. With the smart key turned on and within operating range, push the main switch knob.
3. While the smart key system indicator light is on, push and turn the main switch to “”.

TIP

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

To unlock the steering



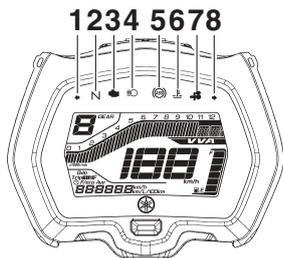
1. Push.
2. Turn.

1. With the smart key turned on and within operating range, push the main switch knob.
2. While the smart key system indicator light is on, push and turn the main switch to the desired position.

Instrument and control functions

Indicator lights and warning lights

EAU77128



1. Left turn signal indicator light “”
2. Neutral indicator light “**N**”
3. Engine trouble warning light “”
4. High beam indicator light “”
5. Anti-lock Brake System (ABS) warning light “”
6. Coolant temperature warning light “”
7. Smart key system indicator light “”
8. Right turn signal indicator light “”

Turn signal indicator lights “” and “”

EAU11033

Each indicator light will flash when its corresponding turn signal lights flash.

Neutral indicator light “**N**”

EAU11061

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

High beam indicator light “”

EAU11081

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

Coolant temperature warning light “”

EAU11449

This warning light comes on when the engine is overheating. If this occurs, stop the engine immediately and allow the engine to cool. (See page 8-39.) For vehicles with a radiator fan, the radiator fan(s) automatically switch on or off according to the coolant temperature.

TIP

When the vehicle is turned on, the light will come on for a few seconds, and then go off. If the light does not come on, or if the light remains on, have a Yamaha dealer check the vehicle.

NOTICE

ECA10022

Do not continue to operate the engine if it is overheating.

Engine trouble warning light “”

EAU77562

This warning light comes on if a problem is detected in the engine or other vehicle control system. If this occurs, have a Yamaha dealer check the on-board diagnostic system.

TIP

When the vehicle is turned on, this light should come on for a few seconds and then go off. Otherwise, have a Yamaha dealer check the vehicle.

ABS warning light “”

EAU85161

This warning light comes on when the vehicle is first turned on, and goes off after starting riding. If the warning light comes on while riding, the anti-lock brake system may not work correctly.

WARNING

EWA16043

If the ABS warning light does not turn off after reaching 10 km/h (6 mi/h), or if the warning light comes on while riding:

- Use extra caution to avoid possible wheel lock during emergency braking.
- Have a Yamaha dealer check the vehicle as soon as possible.

TIP

The ABS warning light may come on while revving the engine with the vehicle on its centerstand, but this does not indicate a malfunction.

EAU78602

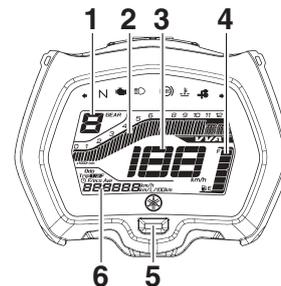
Smart key system indicator light “”

This indicator light communicates the status of the smart key system. When the smart key system is operating normally, this indicator light will be off. If there is an error in the smart key system, the indicator light will flash. The indicator light will also flash when communication between the vehicle and

smart key takes place and when certain smart key system operations are carried out.

Multi-function meter unit

EAU86814



1. Transmission gear display
2. Tachometer
3. Speedometer
4. Fuel meter
5. “RESET/SELECT” button
6. Multi-function display

WARNING

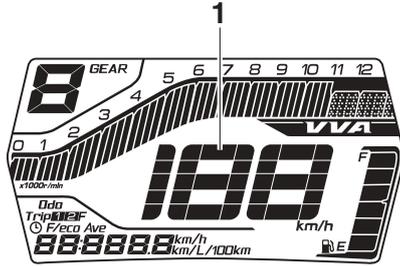
EWA12423

Be sure to stop the vehicle before making any setting changes to the multi-function meter unit. Changing settings while riding can distract the operator and increase the risk of an accident.

Instrument and control functions

Speedometer

EAU86831



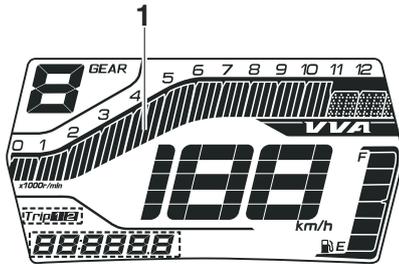
5

1. Speedometer

The speedometer shows the vehicle's traveling speed.

Tachometer

EAU87180



1. Tachometer

The tachometer allows the rider to monitor the engine speed and keep it within the ideal power range.

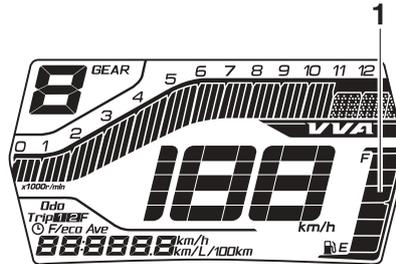
ECA23050

NOTICE

Do not operate the engine in the tachometer high-r/min zone. High-r/min zone: 11000 r/min and above

EAU87221

Fuel meter



1. Fuel meter

The fuel meter indicates the amount of fuel in the fuel tank. The display segments of the fuel meter disappear from "F" (full) towards "E" (empty) as the fuel level decreases. When approximately

0.7 L (0.18 US gal, 0.15 Imp.gal) of fuel remains, the last segment starts flashing. Refuel as soon as possible.

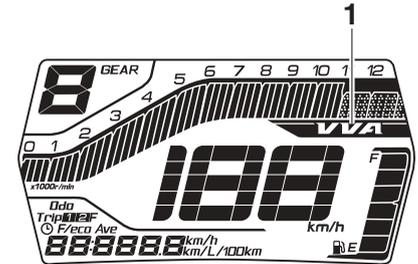
ECAE0121

NOTICE

Do not let the vehicle run completely out of fuel. This may cause damage to the catalytic converter.

EAU87370

VVA indicator

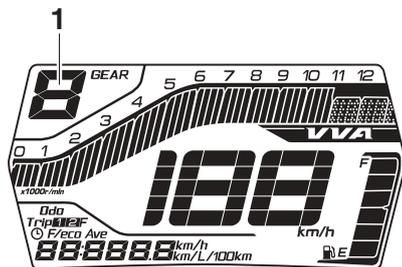


1. VVA (variable valve actuation) indicator

This model is equipped with variable valve actuation (VVA) for good fuel economy and acceleration in both the low-speed and high-speed ranges. The VVA indicator comes on when the variable valve actuation system has switched to the high-speed range.

Transmission gear display

EAU87391

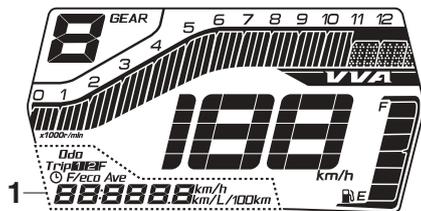


1. Transmission gear display

This display shows the selected gear. The neutral position is indicated by “_” and by the neutral indicator light.

Multi-function display

EAU87561



1. Multi-function display

The multi-function display is equipped with the following:

- an odometer (ODO)
- two tripmeters (TRIP 1 and TRIP 2)
- a fuel reserve tripmeter (TRIP F)
- a clock
- an instantaneous fuel consumption display (km/L or L/100 km)
- an average fuel consumption display (AVE_ _ km/L or AVE_ _ L/100 km)
- an average speed display (AVE_ _ km/h)

Push the “RESET/SELECT” button to change the display in the following order:

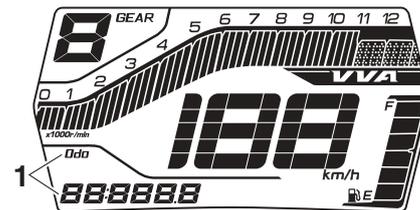
ODO → TRIP 1 → TRIP 2 → TRIP F → clock → km/L or L/100 km → AVE_ _ km/L or AVE_ _ L/100 km → AVE_ _ km/h → ODO

TIP

The fuel reserve tripmeter appears only when you are low on fuel.

Odometer

EAU86891



1. Odometer

The odometer shows the total distance traveled by the vehicle.

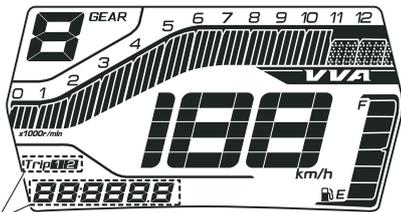
TIP

The odometer will lock at “999999” and cannot be reset.

Instrument and control functions

Tripmeters

EAU88060



1. Tripmeter

The tripmeters show the distance traveled since they were last reset.

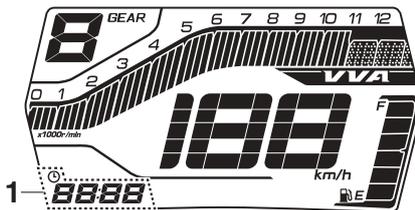
To reset a tripmeter, change the display to the tripmeter you want to reset, and then push the “RESET/SELECT” button until it is reset.

TIP

The tripmeters will reset and continue counting after 9999.9 is reached.

Clock

EAUN2960



1. Clock

The clock uses a 12-hour time system.

To set the clock

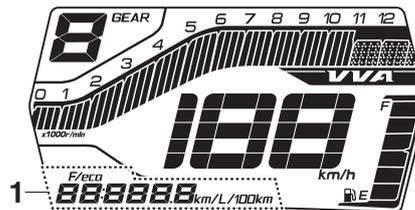
1. Push the “RESET/SELECT” button until the hour digits start flashing.
2. Use the “RESET/SELECT” button to set the hours.
3. Push the “RESET/SELECT” button until the minute digits start flashing.
4. Use the “RESET/SELECT” button to set the minutes.
5. Push the “RESET/SELECT” button until the minute digits stop flashing. The setting is confirmed.

TIP

If you do not push the “RESET/SELECT” button to confirm the setting within 90 seconds, the clock will not be set and will return to the prior time.

EAU87750

Instantaneous fuel consumption display



1. Instantaneous fuel consumption display

This display shows the fuel consumption under the current riding conditions. It can be set to either “km/L” or “L/100 km”. To switch the fuel consumption measurement units, push the “RESET/SELECT” button until the measurement units change.

- “km/L”: the distance that can be traveled on 1.0 L of fuel.

Instrument and control functions

- “L/100 km”: the amount of fuel necessary to travel 100 km.

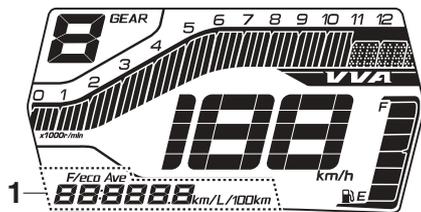
TIP _____
When traveling under 10 km/h (6 mi/h), “_ _.” is displayed.

EAU87790

TIP _____
The instantaneous fuel consumption function should be used for general reference only. Do not use this figure to estimate the distance that can be traveled on the current tank of fuel.

EAU87811

Average fuel consumption display



1. Average fuel consumption display

This display shows the average fuel consumption since it was last reset. To reset the display, push the “RESET/SELECT” button until it resets.

TIP _____

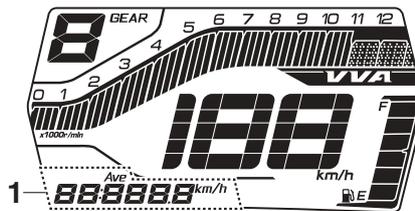
- After resetting, “_ _.” is shown until the vehicle has traveled some distance.
- To switch the fuel consumption measurement units between “km/L” and “L/100 km”, change at the instantaneous fuel consumption display. (See page 5-5.)

This display shows the vehicle’s average traveling speed since it was last reset.

To reset the average speed display, push the “RESET/SELECT” button until it is reset.

EAU87890

Average speed display

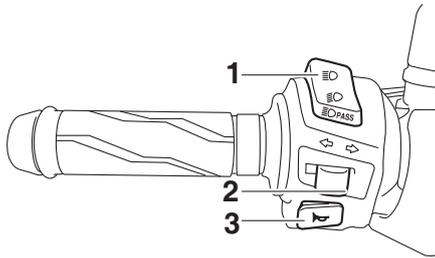


1. Average speed display

Instrument and control functions

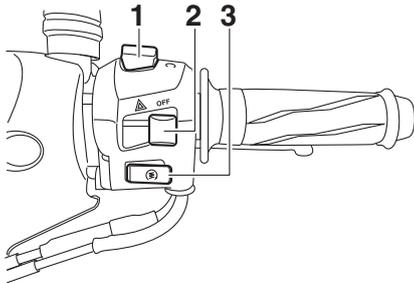
Handlebar switches

Left



1. Dimmer/Pass switch “ \equiv ○/ \equiv ○/PASS”
2. Turn signal switch “ \leftarrow / \rightarrow ”
3. Horn switch “ 📢 ”

Right



1. Engine stop switch “○/ ⊗ ”
2. Hazard lights switch “ \triangle /OFF”
3. Start switch “ 🔌 ”

EAU1234T

Dimmer/Pass switch “ \equiv ○/ \equiv ○/PASS”

EAU54203

Set this switch to “ \equiv ○” for the high beam and to “ \equiv ○” for the low beam. To flash the high beam, push the switch down towards “PASS” while the headlights are on low beam.

Turn signal switch “ \leftarrow / \rightarrow ”

EAU12461

To signal a right-hand turn, push this switch to “ \rightarrow ”. To signal a left-hand turn, push this switch to “ \leftarrow ”. 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 “ 📢 ”

EAU12501

Press this switch to sound the horn.

Engine stop switch “○/ ⊗ ”

EAU12664

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 “ 🔌 ”

EAU12713

Push this switch to crank the engine with the starter. See page 7-2 for starting instructions prior to starting the engine.

Hazard lights switch “ \triangle /OFF”

EAUN2211

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 “ \triangle ” to turn on the hazard lights. To turn off the hazard lights, set the switch to “OFF”.

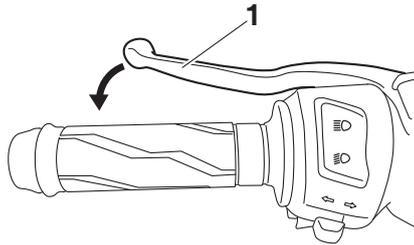
NOTICE

ECA10062

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

Clutch lever

EAU31642



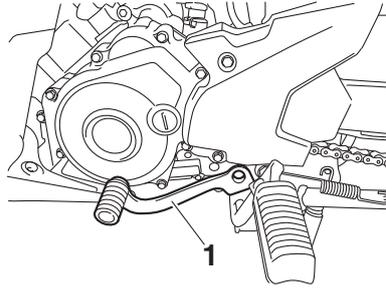
1. Clutch lever

The clutch lever is located on the left side of the handlebar. To disengage the clutch, pull the lever toward the handlebar grip. To engage the clutch, release the lever. The lever should be pulled rapidly and released slowly for smooth clutch operation.

The clutch lever is equipped with a clutch switch, which is part of the starting circuit cut-off system. (See page 5-14.)

Shift pedal

EAU12876

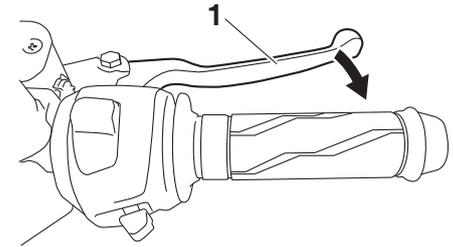


1. Shift pedal

The shift pedal is located on the left side of the motorcycle. To shift the transmission to a higher gear, move the shift pedal up. To shift the transmission to a lower gear, move the shift pedal down. (See page 7-3.)

Brake lever

EAU12892



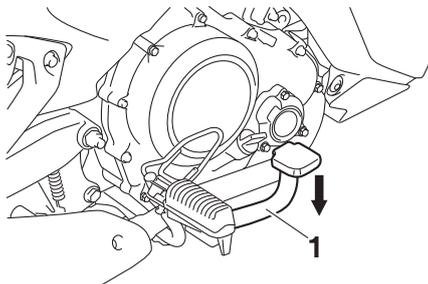
1. Brake lever

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

Instrument and control functions

EAU12944

Brake pedal



5

1. Brake pedal

The brake pedal is located on the right side of the motorcycle. To apply the rear brake, press down on the brake pedal.

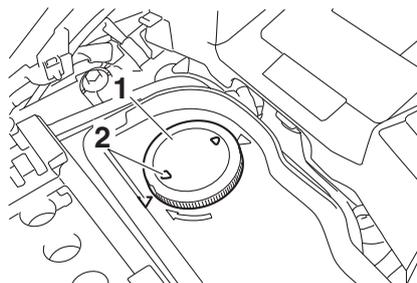
EAU37474

Fuel tank cap

To remove the fuel tank cap

1. Open the seat. (See page 5-11.)
2. Turn the fuel tank cap counter-clockwise and pull it off.

To install the fuel tank cap



1. Fuel tank cap
2. “△” mark

1. Insert the fuel tank cap into the tank opening and turn it clockwise until the “△” 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.

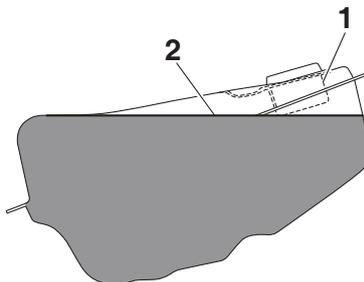
EAU13233

EWA10882

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.



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.** [ECA110072]
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.

EAUU0045

Recommended fuel:

Regular unleaded gasoline (E10 to E20 only)

Fuel tank capacity:

5.4 L (1.4 US gal, 1.2 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.

Gasohol

There are two types of gasohol: gasohol containing ethanol and that containing methanol. Gasohol containing ethanol can be used if the ethanol content does not exceed 10% (E10). Gasohol containing methanol is not

Instrument and control functions

recommended by Yamaha because it can cause damage to the fuel system or vehicle performance problems.

Catalytic converter

EAU13435

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.

Seat

EAU1740

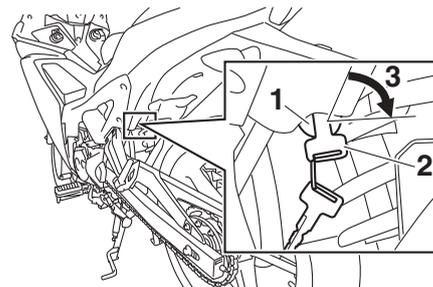
To open the seat

Via the main switch

Use the “SEAT” button on the main switch. (See page 4-9.)

With the mechanical key

1. Open the keyhole cover.



1. Keyhole cover
2. Mechanical key
3. Unlock.

2. Insert the mechanical key into the seat lock, and then turn it clockwise.
3. Lift the rear of the seat.

ECA24020

NOTICE

Make sure that the keyhole cover is installed when the mechanical key is not being used.

To close the seat

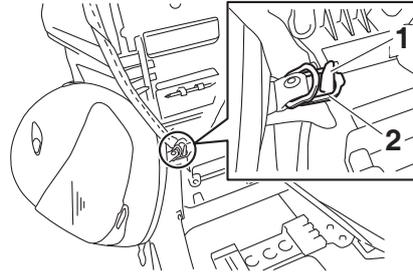
Push the rear of the seat down to lock it in place.

TIP

Make sure that the seat is properly secured before riding.

EAU0850

Helmet holders



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 5-11.)
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]

To release a helmet from a helmet holder

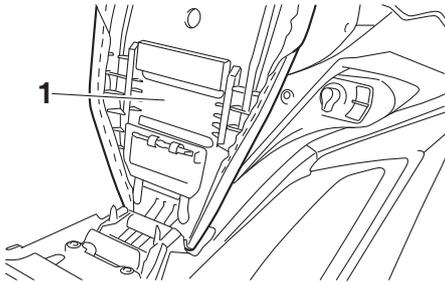
Open the seat, remove the helmet from the helmet holder, and then close the seat.

Instrument and control functions

5

Storage compartment

EAU0912



1. Storage compartment

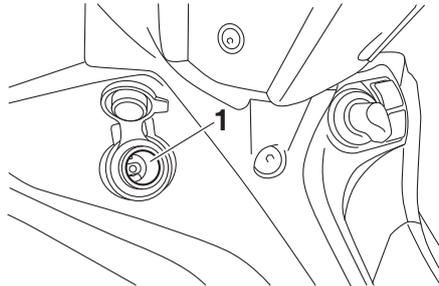
The storage compartment is located under the seat. (See page 5-11.)

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.

Power outlet

EAUN2162

This model is equipped with a 12V DC power outlet.



1. Power outlet

NOTICE

ECAN0140

Do not use the power outlet when the engine is off, and do not exceed the specified electrical load; otherwise the fuse may blow or the battery may discharge.

When washing the vehicle, do not direct high-pressure washers at the power outlet area.

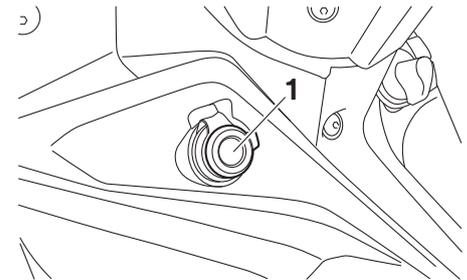
**Maximum electrical load:
12 W (1 A)**

To use the power outlet

1. Turn the vehicle power off.
2. Remove the power outlet cap.
3. Turn the accessory off.
4. Insert the accessory plug into the power outlet.
5. Turn the vehicle power on and start the engine.
6. Turn the accessory on.

TIP

When finished riding, turn off the accessory and disconnect it from the power outlet, and then install the cap.



1. Power outlet cap

WARNING

EWAN0050

To prevent electrical shock or short-circuiting, install the cap when the power outlet is not in use.

Sidestand

EAU37491

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.

WARNING

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.

Starting circuit cut-off system

EAU15397

This system prevents in-gear engine starts unless the clutch lever is pulled. Periodically check the system via the following procedure.

TIP

- This check is most reliable if performed with a warmed-up engine.
- See page 5-7 for switch operation information.

Instrument and control functions

5

With the engine turned off:
1. Set engine stop switch to run position.
2. Turn main switch to on position.
3. Shift transmission into neutral.
4. Push the start switch.
Does the engine start?

YES

NO

5. Stop the engine.
6. Set engine stop switch to run position.
7. Shift transmission into gear.
8. Pull the clutch lever.
9. Push the start switch.
Does the engine start?

YES

NO

The system is OK. **The motorcycle can be ridden.**

⚠ WARNING

If a malfunction is found, have the vehicle inspected before riding.

The neutral switch may not be working.
The vehicle should not be ridden until checked by a Yamaha dealer.

The clutch switch may not be working.
The vehicle should not be ridden until checked by a Yamaha dealer.

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">• Refuel if necessary.• Check fuel line for leakage. | 5-10 |
| Engine oil | <ul style="list-style-type: none">• Check oil level in engine.• If necessary, add recommended oil to specified level.• Check vehicle for oil leakage. | 8-10 |
| Coolant | <ul style="list-style-type: none">• Check coolant level in reservoir.• If necessary, add recommended coolant to specified level.• Check cooling system for leakage. | 8-13 |
| Front brake | <ul style="list-style-type: none">• Check operation.• If soft or spongy, have Yamaha dealer bleed hydraulic system.• Check brake pads for wear.• Replace if necessary.• Check fluid level in reservoir.• If necessary, add specified brake fluid to specified level.• Check hydraulic system for leakage. | 8-21, 8-22 |

For your safety – pre-operation checks

| ITEM | CHECKS | PAGE |
|--------------------------------|---|------------|
| Rear brake | <ul style="list-style-type: none"> • Check operation. • If soft or spongy, have Yamaha dealer bleed hydraulic system. • Check brake pads for wear. • Replace if necessary. • Check fluid level in reservoir. • If necessary, add specified brake fluid to specified level. • Check hydraulic system for leakage. | 8-21, 8-22 |
| Clutch | <ul style="list-style-type: none"> • Check operation. • Lubricate cable if necessary. • Check lever free play. • Adjust if necessary. | 8-18 |
| Throttle grip | <ul style="list-style-type: none"> • Make sure that operation is smooth. • Check throttle grip free play. • If necessary, have Yamaha dealer adjust throttle grip free play and lubricate cable and grip housing. | 8-15, 8-26 |
| Control cables | <ul style="list-style-type: none"> • Make sure that operation is smooth. • Lubricate if necessary. | 8-25 |
| Drive chain | <ul style="list-style-type: none"> • Check chain slack. • Adjust if necessary. • Check chain condition. • Lubricate if necessary. | 8-23, 8-25 |
| Wheels and tires | <ul style="list-style-type: none"> • Check for damage. • Check tire condition and tread depth. • Check air pressure. • Correct if necessary. | 8-16, 8-18 |
| Shift pedal | <ul style="list-style-type: none"> • Make sure that operation is smooth. • Correct if necessary. | 8-20 |
| Brake pedal | <ul style="list-style-type: none"> • Make sure that operation is smooth. • Lubricate pedal pivoting point if necessary. | 8-27 |
| Brake and clutch levers | <ul style="list-style-type: none"> • Make sure that operation is smooth. • Lubricate lever pivoting points if necessary. | 8-26 |

For your safety – pre-operation checks

| ITEM | CHECKS | PAGE |
|--|---|------|
| Centerstand, sidestand | <ul style="list-style-type: none">• Make sure that operation is smooth.• Lubricate pivots if necessary. | 8-27 |
| Chassis fasteners | <ul style="list-style-type: none">• Make sure that all nuts, bolts and screws are properly tightened.• Tighten if necessary. | — |
| Instruments, lights, signals and switches | <ul style="list-style-type: none">• Check operation.• Correct if necessary. | — |

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.

EAU16842

Engine break-in

There is never a more important period in the life of your engine than the period between 0 and 1600 km (1000 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 1600 km (1000 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.

EAU17104

0–1000 km (0–600 mi)

Avoid prolonged operation above 5000 r/min. **NOTICE: After 1000 km (600 mi) of operation, the engine oil must be changed and the oil filter element replaced.** [ECA11153]

1000–1600 km (600–1000 mi)

Avoid prolonged operation above 7500 r/min.

1600 km (1000 mi) and beyond

The vehicle can now be operated normally.

ECA10311

NOTICE

- **Keep the engine speed out of the tachometer red zone.**
 - **If any engine trouble should occur during the engine break-in period, immediately have a Yamaha dealer check the vehicle.**
-

Starting the engine

EAU54462

The starting circuit cut-off system will enable starting when:

- the transmission is in the neutral position or
- the transmission is in gear with the clutch lever pulled.

To start the engine

1. Turn the main switch on and set the engine stop switch to the run position.
2. Confirm the indicator and warning light(s) come on for a few seconds, and the go off. (See page 5-1.)

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.

3. Shift the transmission into the neutral position.

4. Start the engine by pushing the start switch.
5. 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.

ECA11043

NOTICE _____

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

EAU45312

TIP _____

This model is equipped with a lean angle sensor to stop the engine in case of a turnover. In this case, turn the main switch off and then on. Failing to do so will prevent the engine from starting even though the engine will crank when pushing the start switch.

Operation and important riding points

EAUN0073

EAU16675

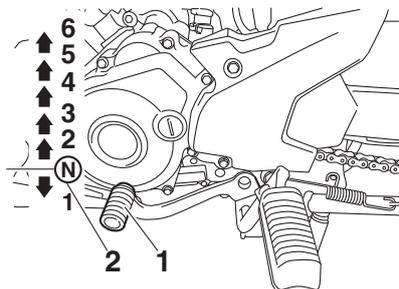
ECA10262

ECAN0072

NOTICE

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

Shifting



1. Shift pedal
2. Neutral position

Shifting gears lets you control the amount of engine power available for starting off, accelerating, climbing hills, etc.

The gear positions are shown in the illustration.

TIP

To shift the transmission into the neutral position (**N**), press the shift pedal down repeatedly until it reaches the end of its travel, and then slightly raise it.

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.
- Always use the clutch while changing gears to avoid damaging the engine, transmission, and drive train, which are not designed to withstand the shock of forced shifting.

Tips for reducing fuel consumption

EAU16811

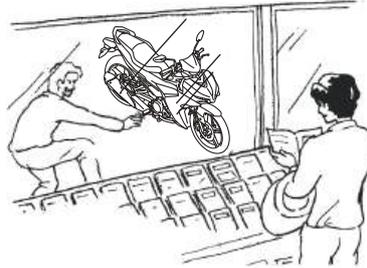
Fuel consumption depends largely on your riding style. Consider the following tips to reduce fuel consumption:

- 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

EAU0950

When parking, turn off the vehicle power and be sure to remove the key and take it with you.



EWA10312

! WARNING

- 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.

TIP

Turn off the smart key when leaving the vehicle. Other people could start the engine if the smart key is turned on and in operating range, even through barriers like walls, windows, fences etc. (See page 4-9.)

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

EWA15123

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 2-3 for more information about carbon monoxide.**

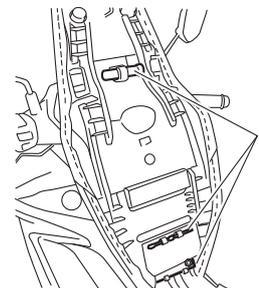
WARNING

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

EWA15461

EAU85230

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 | <ul style="list-style-type: none"> • Check fuel hose for cracks or damage. | | √ | √ | √ | √ | √ |
| 2 | * Fuel filter | <ul style="list-style-type: none"> • Check condition. • Replace if necessary. | Every 12000 km (7500 mi) | | | | | |
| 3 | Spark plug | <ul style="list-style-type: none"> • Check condition. • Clean and regap. | | √ | √ | √ | √ | |
| | | <ul style="list-style-type: none"> • Replace. | Every 8000 km (5000 mi) | | | | | |
| 4 | * Valves | <ul style="list-style-type: none"> • Check valve clearance. • Adjust. | | √ | √ | √ | √ | |
| 5 | * Fuel injection | <ul style="list-style-type: none"> • Check engine idle speed. | √ | √ | √ | √ | √ | √ |
| | | <ul style="list-style-type: none"> • 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 | | √ | √ | √ | √ | √ |

Periodic maintenance and adjustment

EAUU2441

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"> Perform dynamic inspection using Yamaha diagnostic tool. Check the error codes. | √ | √ | √ | √ | √ | √ |
| 2 | Air filter element | <ul style="list-style-type: none"> Replace. | Every 12000 km (7500 mi) | | | | | |
| 3 | Air filter check hose | <ul style="list-style-type: none"> Clean. | √ | √ | √ | √ | √ | |
| 4 | * Battery | <ul style="list-style-type: none"> Check voltage. Charge if necessary. | √ | √ | √ | √ | √ | √ |
| 5 | Clutch | <ul style="list-style-type: none"> Check operation. Adjust. | √ | √ | √ | √ | √ | |
| 6 | * Front brake | <ul style="list-style-type: none"> Check operation, fluid level and vehicle for fluid leakage. | √ | √ | √ | √ | √ | √ |
| | | <ul style="list-style-type: none"> Replace brake pads. | Whenever worn to the limit | | | | | |
| 7 | * Rear brake | <ul style="list-style-type: none"> Check operation, fluid level and vehicle for fluid leakage. | √ | √ | √ | √ | √ | √ |
| | | <ul style="list-style-type: none"> Replace brake pads. | Whenever worn to the limit | | | | | |
| 8 | * Brake hose | <ul style="list-style-type: none"> Check for cracks or damage. Check for correct routing and clamping. | | √ | √ | √ | √ | √ |
| | | <ul style="list-style-type: none"> Replace. | Every 4 years | | | | | |
| 9 | * Brake fluid | <ul style="list-style-type: none"> Change. | Every 2 years | | | | | |
| 10 | * Wheels | <ul style="list-style-type: none"> Check runout and for damage. Replace if necessary. | | √ | √ | √ | √ | √ |

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 | |
| 11 | * Tires | <ul style="list-style-type: none"> • Check tread depth and for damage. • Replace if necessary. • Check air pressure. • Correct if necessary. | | √ | √ | √ | √ | √ |
| 12 | * Wheel bearings | <ul style="list-style-type: none"> • Check bearings for looseness or damage. | | √ | √ | √ | √ | |
| 13 | * Swingarm | <ul style="list-style-type: none"> • Check operation and for excessive play. | √ | √ | √ | √ | √ | √ |
| | | <ul style="list-style-type: none"> • Lubricate with lithium-soap-based grease. | Every 24000 km (15000 mi) | | | | | |
| 14 | Drive chain | <ul style="list-style-type: none"> • Check chain slack, alignment and condition. • Adjust and lubricate chain with a special O-ring chain lubricant thoroughly. | Every 1000 km (600 mi) and after washing the motorcycle, riding in the rain or riding in wet areas | | | | | |
| 15 | * Steering bearings | <ul style="list-style-type: none"> • Check bearing play and steering for roughness. | √ | √ | √ | √ | √ | |
| | | <ul style="list-style-type: none"> • Lubricate with lithium-soap-based grease. | Every 24000 km (15000 mi) | | | | | |
| 16 | * Chassis fasteners | <ul style="list-style-type: none"> • Make sure that all nuts, bolts and screws are properly tightened. | | √ | √ | √ | √ | √ |
| 17 | Brake lever pivot shaft | <ul style="list-style-type: none"> • Lubricate with silicone grease. | | √ | √ | √ | √ | √ |
| 18 | Brake pedal pivot shaft | <ul style="list-style-type: none"> • Lubricate with lithium-soap-based grease. | | √ | √ | √ | √ | √ |

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 | |
| 19 | Clutch lever pivot shaft | <ul style="list-style-type: none"> Lubricate with lithium-soap-based grease. | | √ | √ | √ | √ | √ |
| 20 | Sidestand, center-stand | <ul style="list-style-type: none"> Check operation. Lubricate with lithium-soap-based grease. | | √ | √ | √ | √ | √ |
| 21 | * Front fork | <ul style="list-style-type: none"> Check operation and for oil leakage. | | √ | √ | √ | √ | |
| | | <ul style="list-style-type: none"> Change the front fork oil. | Every 20000 km (12000 mi) | | | | | |
| 22 | * Shock absorber assembly | <ul style="list-style-type: none"> Check operation and shock absorber for oil leakage. | | √ | √ | √ | √ | |
| 23 | Engine oil | <ul style="list-style-type: none"> Change. Check oil level and vehicle for oil leakage. | √ | √ | √ | √ | √ | |
| 24 | Engine oil filter element | <ul style="list-style-type: none"> Replace. | √ | √ | √ | √ | √ | |
| 25 | * Cooling system | <ul style="list-style-type: none"> Check coolant level and vehicle for coolant leakage. | | √ | √ | √ | √ | √ |
| | | <ul style="list-style-type: none"> Change with Yamaha genuine coolant. | Every 3 years | | | | | |
| 26 | * Front and rear brake switches | <ul style="list-style-type: none"> Check operation. | √ | √ | √ | √ | √ | √ |
| 27 | Moving parts and cables | <ul style="list-style-type: none"> Lubricate. | | √ | √ | √ | √ | √ |

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 | |
| 28 | * Throttle grip | <ul style="list-style-type: none"> • Check operation. • Check throttle grip free play, and adjust if necessary. • Lubricate cable and grip housing. | | √ | √ | √ | √ | √ |
| 29 | * Lights, signals and switches | <ul style="list-style-type: none"> • Check operation. • Adjust headlight beam. | √ | √ | √ | √ | √ | √ |

EAU18662

TIP

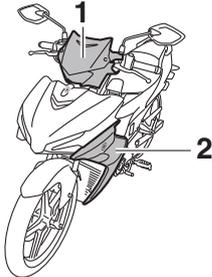
- The air filter needs more frequent service if you are riding in unusually wet or dusty areas.
- Hydraulic brake service
 - Regularly check and, if necessary, correct the brake fluid level.
 - Every two years replace the internal components of the brake master cylinder and caliper, and change the brake fluid.
 - Replace the brake hoses every four years and if cracked or damaged.

Periodic maintenance and adjustment

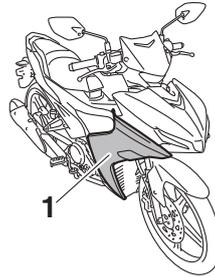
Removing and installing the cowling and panels

EAU18724

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



1. Cowling A
2. Panel A



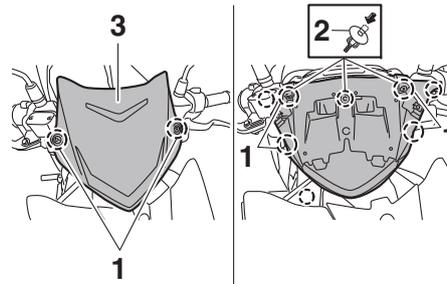
1. Panel B

Cowling A

EAU1141

To remove the cowling

Remove the screws and quick fastener, then take the cowling off.



1. Screw
2. Quick fastener
3. Cowling A

To install the cowling

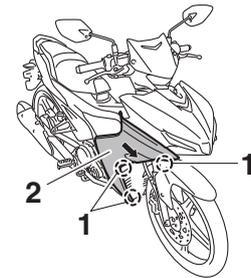
Place the cowling in the original position, then install the quick fastener and screws.

EAU10931

Panel A and B

To remove the panel

Remove the screws, and then pull the panel off as shown.



1. Screw
2. Panel B

To install the panel

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

Periodic maintenance and adjustment

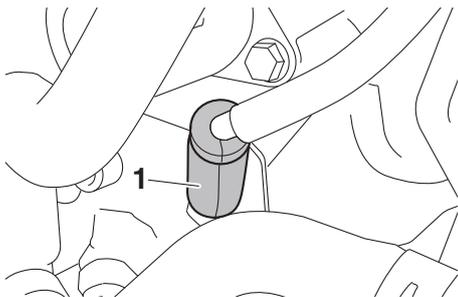
EAUT2077

Checking the spark plug

The spark plug is an important engine component, which is easy to check. Since heat and deposits will cause any spark plug to slowly erode, the spark plug 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.

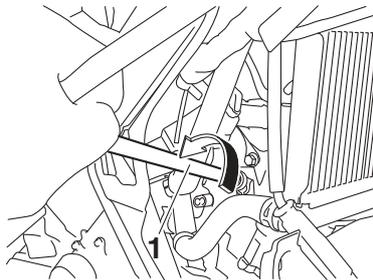
To remove the spark plug

1. Remove panel B. (See page 8-8.)
2. Remove the spark plug cap.



1. Spark plug cap

3. Remove the spark plug as shown, with a spark plug wrench available at a Yamaha dealer.



1. Spark plug wrench

To check the spark plug

1. Check that the porcelain insulator around the center electrode of the spark plug is a medium-to-light tan (the ideal color when the vehicle is ridden normally).

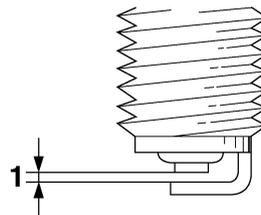
TIP

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.

2. Check the spark plug for electrode erosion and excessive carbon or other deposits, and replace it if necessary.

Specified spark plug:
NGK/CPR8EA9

3. Measure the spark plug gap with a wire thickness gauge and, if necessary, adjust the gap to specification.



1. Spark plug gap

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

To install the spark plug

1. Clean the surface of the spark plug gasket and its mating surface, and then wipe off any grime from the spark plug threads.
2. Install the spark plug with the spark plug wrench, and then tighten it to the specified torque.

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.

3. Install the spark plug cap.
4. Install the panel B.

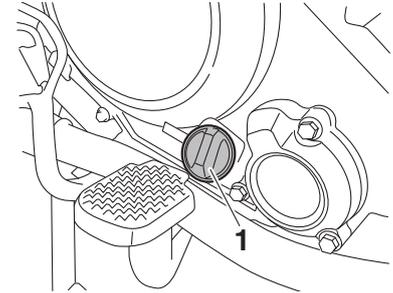
Engine oil and oil filter element

EAU37576

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

To check the engine oil level

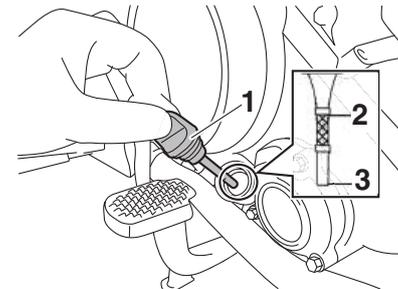
1. Place the vehicle on the centerstand. A slight tilt to the side can result in a false reading.
2. Start the engine, warm it up for several minutes, and then turn it off.
3. Wait a few minutes until the oil settles, remove the oil filler cap, wipe the dipstick clean, insert it back into the oil filler hole (without screwing it in), and then remove it again to check the oil level.



1. Engine oil filler cap

TIP

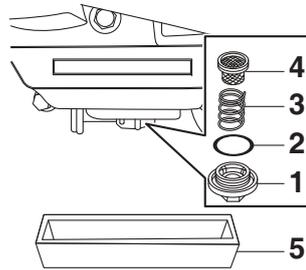
The engine oil should be between the tip of the dipstick and the maximum level mark.



1. Engine oil dipstick
2. Maximum level mark
3. Tip of the engine oil dipstick

Periodic maintenance and adjustment

- If the engine oil is at or below the minimum level mark, add sufficient oil of the recommended type to raise it to the correct level.
- Insert the dipstick into the oil filler hole, and then tighten the oil filler cap.



1. Engine oil drain bolt
2. O-ring
3. Compression spring
4. Strainer
5. Oil pan

To change the engine oil (with or without oil filter element replacement)

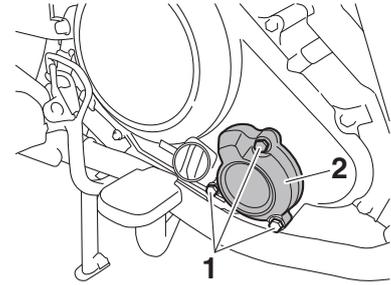
1. Start the engine, warm it up for several minutes, and then turn it off.
2. Place an oil pan under the engine to collect the used oil.
3. Remove the engine oil filler cap and drain bolt along with the O-ring, compression spring, and engine oil strainer, to drain the oil from the crankcase. **NOTICE:** When removing the engine oil drain bolt, the O-ring, compression spring, and oil strainer will fall out. Take care not to lose these parts. [ECA11002]

4. Clean the engine oil strainer with solvent, and then check it for damage and replace it if necessary.

TIP

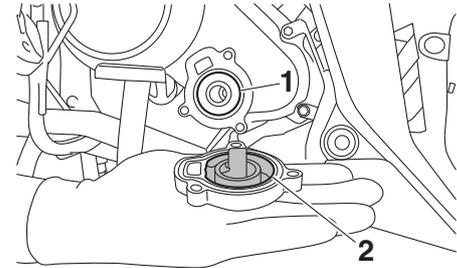
Skip steps 5–7 if the oil filter element is not being replaced.

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



1. Bolt
2. Oil filter element cover

6. Remove and replace the oil filter element and O-ring.



1. Oil filter element
2. O-ring

Periodic maintenance and adjustment

7. Install the oil filter element cover by installing the bolts, then tightening them to the specified torque.

Tightening torque:

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

TIP

Make sure that the O-ring is properly seated.

8. Install the engine oil strainer, compression spring, new O-ring and engine oil drain bolt, and then tighten the drain bolt to the specified torque. **NOTICE: Before installing the engine oil drain bolt, do not forget to install the O-ring, compression spring, and oil strainer in position.** [ECA10422]

Tightening torque:

Engine oil drain bolt:
32 N·m (3.2 kgf·m, 24 lb·ft)

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

Recommended engine oil:

See page 10-1.

Oil quantity:

Oil change:

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

With oil filter removal:

0.95 L (1.00 US qt, 0.84 Imp.qt)

TIP

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

ECA11621

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” or oils of a higher quality than specified. In addition, do not use oils labeled “ENERGY CONSERVING II” or higher.

- **Make sure that no foreign material enters the crankcase.**

10. Start the engine, and then let it idle for several minutes while checking it for oil leakage. If oil is leaking, immediately turn the engine off and check for the cause.
11. Turn the engine off, and then check the oil level and correct it if necessary.

Periodic maintenance and adjustment

8

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

EAU20071

Coolant

The coolant level should be checked before each ride. In addition, the coolant must be changed at the intervals specified in the periodic maintenance and lubrication chart.

EAU40047

To check the coolant level

1. Place the vehicle on the center-stand.

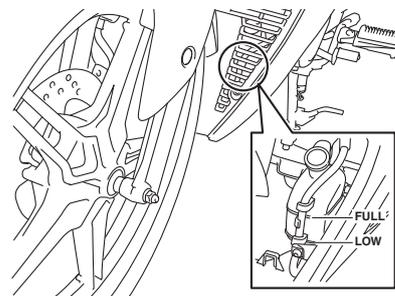
TIP

- The coolant level must be checked on a cold engine since the level varies with engine temperature.
- Make sure that the vehicle is positioned straight up when checking the coolant level. A slight tilt to the side can result in an incorrect reading.

2. Check the coolant level in the coolant reservoir.

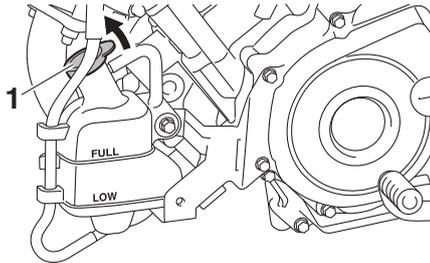
TIP

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



1. Coolant reservoir
 2. Maximum level mark
 3. Minimum level mark
3. If the coolant is at or below the minimum level mark, remove panel A to access the coolant reservoir. (See page 8-8.)
 4. Remove the coolant reservoir cap, add coolant to the maximum level mark, and then install the reservoir cap. **WARNING! Remove only the coolant reservoir cap. Never attempt to remove the radiator cap when the engine is hot.**
[EWA15162] **NOTICE: If coolant is not available, use distilled water or soft tap water instead. Do not use hard water or salt water since it is harmful to the engine.**

If water has been used instead of coolant, replace it with coolant as soon as possible, otherwise the cooling system will not be protected against frost and corrosion. If water has been added to the coolant, have a Yamaha dealer check the anti-freeze content of the coolant as soon as possible, otherwise the effectiveness of the coolant will be reduced. [ECA10473]



1. Coolant reservoir cap

Coolant reservoir capacity (up to the maximum level mark):
0.16 L (0.17 US qt, 0.14 Imp.qt)

5. Install the panel.

Changing the coolant

EAU33032

The coolant must be changed at the intervals specified in the periodic maintenance and lubrication chart. Have a Yamaha dealer change the coolant. **WARNING! Never attempt to remove the radiator cap when the engine is hot.** [EWA10382]

EAUT1991

Replacing the air filter element

The air filter element must be replaced and the check hoses must be cleaned at the intervals specified in the periodic maintenance and lubrication chart. Have a Yamaha dealer replace the air filter element.

Periodic maintenance and adjustment

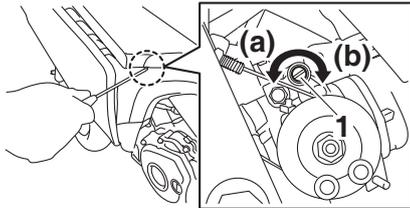
EAU34302

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.

Check the engine idling speed and, if necessary, adjust it to specification by turning the idle adjusting 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:
1300–1500 r/min

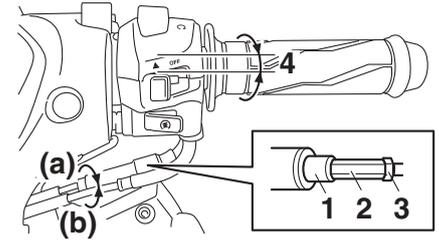
TIP

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

EAU48434

Adjusting the throttle grip free play

Measure the throttle grip free play as shown.



1. Rubber cover
2. Throttle grip free play adjusting nut
3. Locknut
4. 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

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.

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.

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**

Periodic maintenance and adjustment

EWA10583

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

Cold tire air pressure:

1 person:

Front:

225 kPa (2.25 kgf/cm², 33 psi)

Rear:

225 kPa (2.25 kgf/cm², 33 psi)

2 persons:

Front:

225 kPa (2.25 kgf/cm², 33 psi)

Rear:

225 kPa (2.25 kgf/cm², 33 psi)

Maximum load:

Vehicle:

150 kg (331 lb)

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

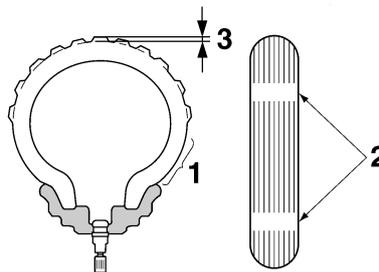
EWA10512



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 a tire tread shows crosswise lines (minimum tread depth), if the tire has a nail or glass fragments in it, or if the sidewall is cracked, contact a Yamaha dealer immediately and have the tire replaced.

Minimum tire tread depth (front and rear):

1.0 mm (0.04 in)



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 to do so.
- 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 tubeless tires and tire air valves.

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:

90/80-17M/C 46P

Manufacturer/model:

IRC/NF67

Rear tire:

Size:

120/70-17M/C 58P

Manufacturer/model:

IRC/NF67

Cast wheels

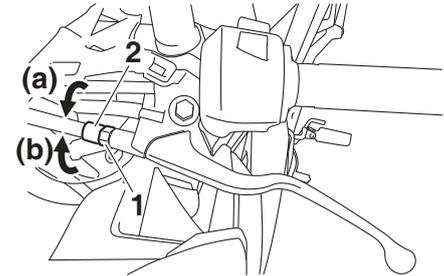
EAU21963

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

- The wheel rims should be checked for cracks, bends, warp-age or other damage before each ride. If any damage is found, have a Yamaha dealer replace the wheel. Do not attempt even the smallest repair to the wheel. A deformed or cracked wheel must be replaced.
- The wheel should be balanced whenever either the tire or wheel has been changed or replaced. An unbalanced wheel can result in poor performance, adverse handling characteristics, and a shortened tire life.

Adjusting the clutch lever free play

EAU65840



1. Locknut
2. Clutch lever free play adjusting bolt

The clutch lever free play should measure 8.0–12.0 mm (0.31–0.47 in) as shown. Periodically check the clutch lever free play and, if necessary, adjust it as follows.

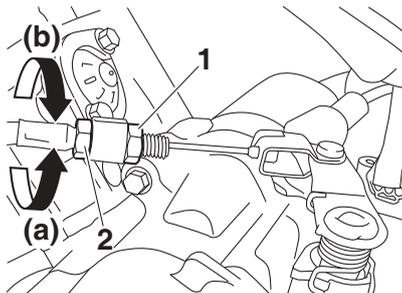
1. Remove cowling A. (See page 8-8.)
2. Loosen the locknut.
3. To increase the clutch lever free play, turn the clutch lever free play adjusting bolt in direction (a). To decrease the clutch lever free play, turn the adjusting bolt in direction (b).

Periodic maintenance and adjustment

TIP

If the specified clutch lever free play could be obtained as described above, skip steps 4–7.

4. Fully turn the adjusting bolt at the clutch lever in direction (a) to loosen the clutch cable.
5. Loosen the locknut at the crankcase.



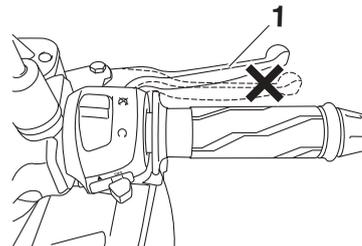
1. Locknut
2. Clutch lever free play adjusting nut

6. To increase the clutch lever free play, turn the clutch lever free play adjusting nut in direction (a). To decrease the clutch lever free play, turn the adjusting nut in direction (b).

7. Tighten the locknut at the crankcase.
8. Tighten the locknut at the clutch lever.
9. Install the cowling.

Checking the brake lever free play

EAU37914



1. Front brake lever

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

⚠ WARNING

EWA14212

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.

Checking the shift pedal

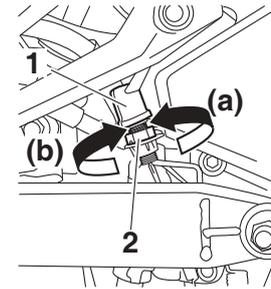
EAU44821

The operation of the shift pedal should be checked before each ride. If operation is not smooth, have a Yamaha dealer check the vehicle.

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).

Periodic maintenance and adjustment

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

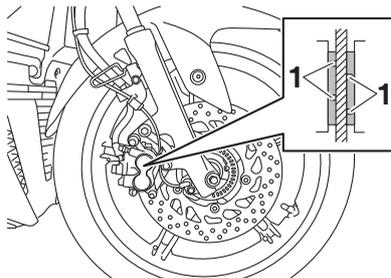
Checking the front and rear brake pads

EAU22393

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

Front brake pads

EAU22434



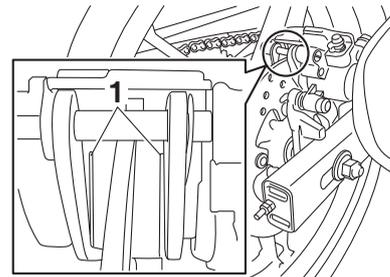
1. Brake pad wear indicator groove

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 pads

EAU1070



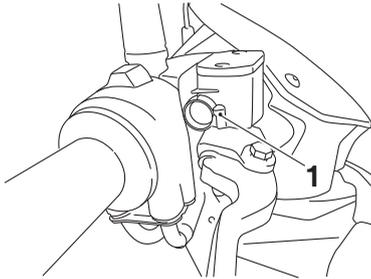
1. Brake pad wear limit line

Each rear brake pad is provided with a brake pad wear limit line, which allows you to check the brake pad wear without having to disassemble the brake. To check the brake pad wear, check the brake pad wear limit line. If a brake pad has worn to the point that the brake pad wear limit line has almost disappeared, have a Yamaha dealer replace the brake pads as a set.

Checking the brake fluid level ^{EAUW0530}

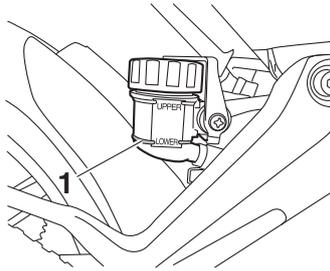
Before riding, check that the brake fluid is above the minimum level mark. Check the brake fluid level with the top of the reservoir level. Replenish the brake fluid if necessary.

Front brake



1. Minimum level mark

Rear brake



1. Minimum level mark

Specified brake fluid:
DOT 3 or DOT 4

EWA15981

! WARNING

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

- **Insufficient brake fluid may allow air to enter the brake system, reducing braking performance.**
- **Clean the filler cap before removing. Use only DOT 3 or DOT 4 brake fluid from a sealed container.**

- **Use only the specified brake fluid; otherwise, the rubber seals may deteriorate, causing leakage.**
- **Refill with the same type of brake fluid. Adding a brake fluid other than DOT 3 or DOT 4 may result in a harmful chemical reaction.**
- **Be careful that water does not enter the brake fluid reservoir when refilling. Water will significantly lower the boiling point of the fluid and may result in vapor lock.**

NOTICE

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

As the brake pads wear, it is normal for the brake fluid level to gradually go down. A low brake fluid level may indicate worn brake pads and/or brake system leakage; therefore, be sure to check the brake pads for wear and the brake system for leakage. If the brake

ECA17641

Periodic maintenance and adjustment

fluid level goes down suddenly, have a Yamaha dealer check the cause before further riding.

Changing the brake fluid

EAU22725

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.

Drive chain slack

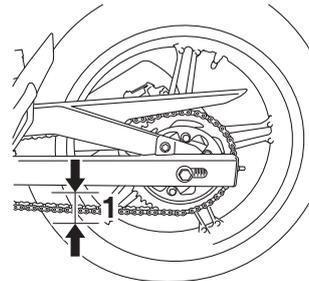
EAU22762

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

To check the drive chain slack

EAU22799

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



1. Drive chain slack

Drive chain slack:

35.0–45.0 mm (1.38–1.77 in)

Periodic maintenance and adjustment

4. 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]

EAU66612

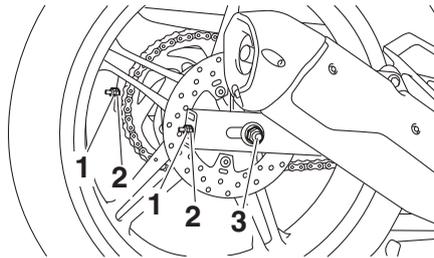
To adjust the drive chain slack

Consult a Yamaha dealer before adjusting the drive chain slack.

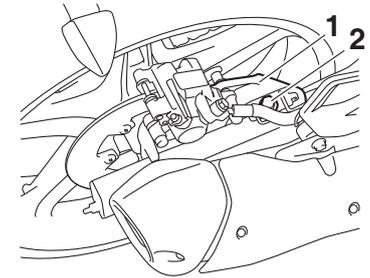
1. Loosen the locknut at each end of the swingarm, and then loosen the axle nut and the brake caliper bracket bolt.
2. To tighten the drive chain, turn the drive chain slack adjusting nut at each end of the swingarm in direction (a). To loosen the drive chain, turn the adjusting nut at each end of the swingarm in direction (b), and then push the rear wheel forward.

TIP

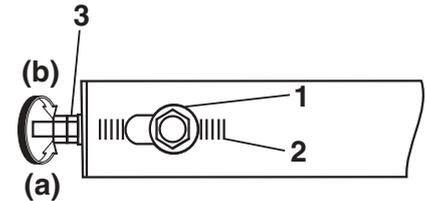
Using the alignment marks on each drive chain puller, make sure that both chain pullers are in the same position for proper wheel alignment.



1. Locknut
2. Drive chain slack adjusting nut
3. Axle nut



1. Brake caliper bracket
2. Brake caliper bracket bolt



ZAUN0630

1. Washer
2. Alignment marks
3. Drive chain slack adjusting nut

3. Tighten the axle nut, the brake caliper bracket bolt, and then tighten the locknuts to the specified torques.

Periodic maintenance and adjustment

Tightening torques:

Axle nut:

90 N·m (9.0 kgf·m, 66 lb·ft)

Brake caliper bracket bolt:

39 N·m (3.9 kgf·m, 29 lb·ft)

Locknut:

7 N·m (0.7 kgf·m, 5.2 lb·ft)

4. Make sure that the drive chain pullers are in the same position, the drive chain slack is correct, and the drive chain moves smoothly.

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.

1. 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.

2. 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

Checking and lubricating the throttle grip and cable

EAU23115

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

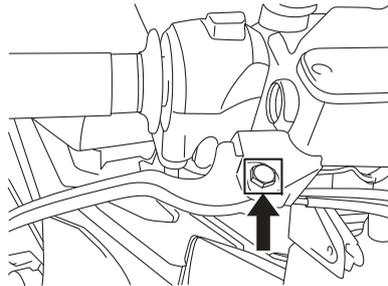
The throttle cable is equipped with a rubber cover. Make sure that the cover is securely installed. Even though the cover is installed correctly, it does not completely protect the cable from water entry. Therefore, use care not to pour water directly onto the cover or cable when washing the vehicle.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

Checking and lubricating the brake and clutch levers

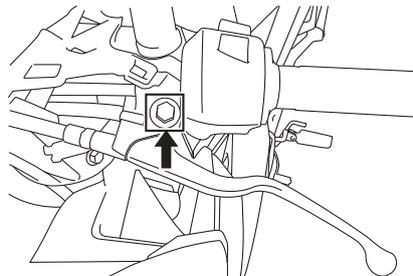
EAU23144

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

Brake lever



Clutch lever



Recommended lubricants:

Brake lever:

Silicone grease

Clutch lever:

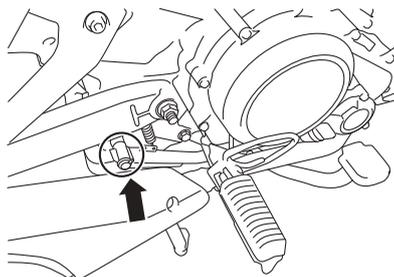
Lithium-soap-based grease

Periodic maintenance and adjustment

Checking and lubricating the brake pedal

EAU23185

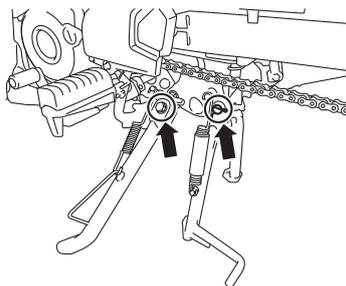
The operation of the brake pedal should be checked before each ride, and the pedal pivot should be lubricated if necessary.



Recommended lubricant:
Lithium-soap-based grease

Checking and lubricating the centerstand and sidestand

EAU23215



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

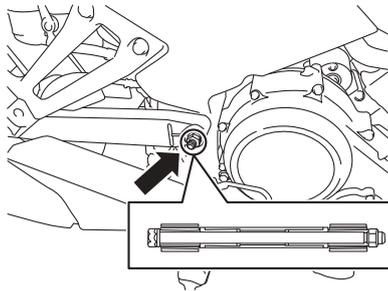
⚠ WARNING

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

Checking the front fork

EAU23273

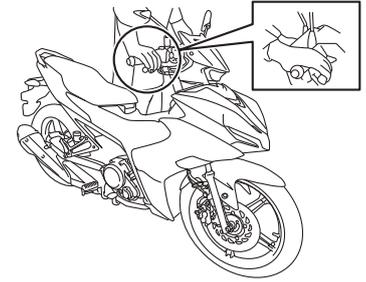
The condition and operation of the front fork must be checked as follows at the intervals specified in the periodic maintenance and lubrication chart.

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.

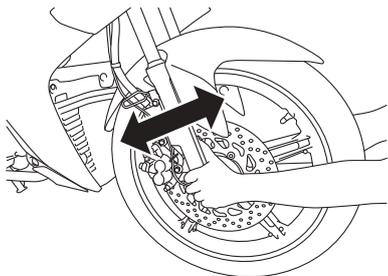
Periodic maintenance and adjustment

EAU45512

Checking the steering

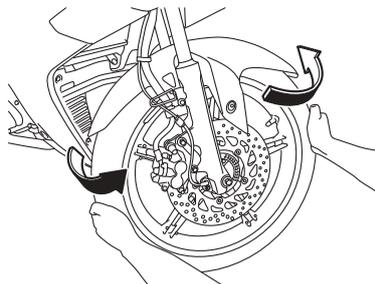
Worn or loose steering bearings may cause danger. Therefore, the operation of the steering must be checked as follows at the intervals specified in the periodic maintenance and lubrication chart.

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.



EAU23292

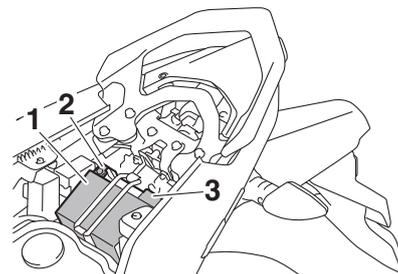
Checking the wheel bearings



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.

EAU50292

Battery



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

The battery is located under the seat. (See page 5-11.)

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**

Periodic maintenance and adjustment

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.**

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 con-**

nect 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

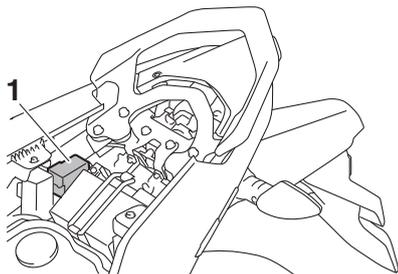
Always keep the battery charged. Storing a discharged battery can cause permanent battery damage.

Periodic maintenance and adjustment

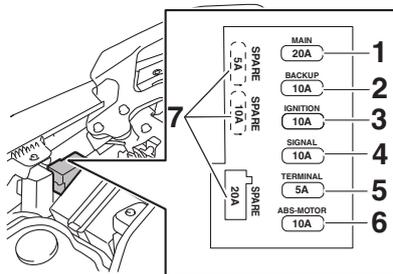
EAUJ1101

Replacing the fuses

The fuse box is located under the seat.
(See page 5-11.)



1. Fuse box



1. Main fuse
2. Backup fuse
3. Ignition fuse
4. Signal fuse
5. Terminal fuse
6. ABS motor fuse
7. Spare fuse

If a fuse is blown, replace it as follows.

1. Turn the main switch off and turn off all electrical circuits.
2. Open the seat.
3. Remove the battery cover by removing the screws.
4. 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:
20.0 A
- Terminal fuse 1:
5.0 A
- ABS motor fuse:
10.0 A
- ABS solenoid fuse:
5.0 A
- Ignition fuse:
10.0 A
- Backup fuse:
10.0 A
- Signaling system fuse:
10.0 A

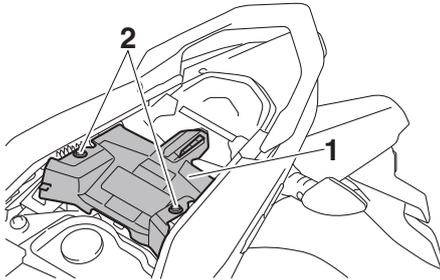
5. Turn the main switch on, and then turn on the electrical circuit in question to check if the device operates.

TIP

If the fuse immediately blows again, have a Yamaha dealer check the electrical system.

Periodic maintenance and adjustment

EAUN2261

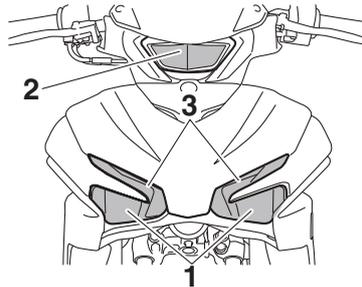


1. Battery cover
2. Screw

6. Install the battery cover by installing the screws.
7. Close the seat.

Vehicle lights

This model is equipped with LED lights for headlights, auxiliary lights and brake/tail light. If a light does not come on, check the fuse and then have a Yamaha dealer check the vehicle.



1. Headlight (high beam)
2. Headlight (low beam)
3. Auxiliary light

ECA16581

NOTICE

Do not affix any type of tinted film or stickers to the headlight lens.

EAUJ0560

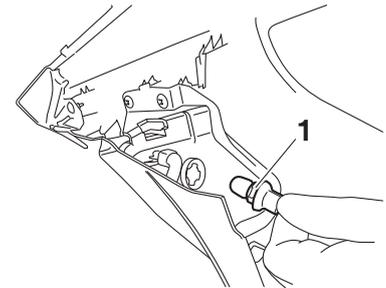
Replacing a front turn signal light bulb

ECA10671

NOTICE

It is advisable to have a Yamaha dealer perform this job.

1. Place the vehicle on the center-stand.
2. Remove panel A and B. (See page 8-8.)
3. Remove the turn signal light bulb socket (together with the bulb) by turning it counterclockwise.



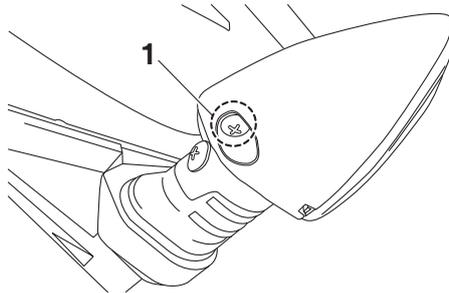
1. Turn signal light bulb
4. Remove the burnt out bulb by pulling it out.
5. Insert a new bulb into the socket.

Periodic maintenance and adjustment

6. Install the socket (together with the bulb) by turning it clockwise.
7. Install the panels.

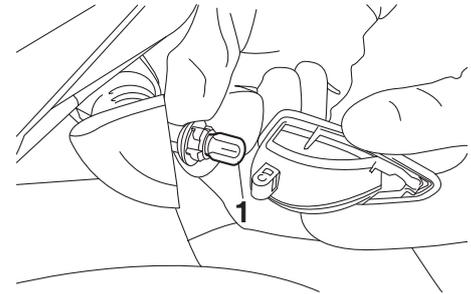
Replacing a rear turn signal light bulb EAU0960

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



1. Screw

2. Remove the socket (together with the turn signal light bulb) by turning it counterclockwise.
3. Remove the burnt-out bulb by pulling it outward.



1. Turn signal light bulb

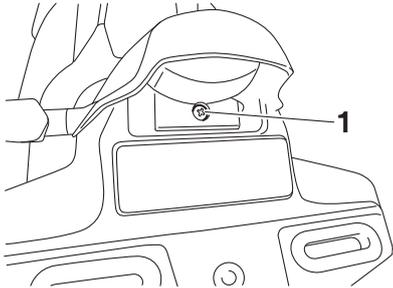
4. Insert a new bulb into the socket.
5. Install the socket (together with the bulb) by turning it clockwise.
6. Install the turn signal light unit by installing the screw. **NOTICE: Do not overtighten the screw, otherwise the lens may break.**

[ECA11192]

Replacing the license plate light bulb

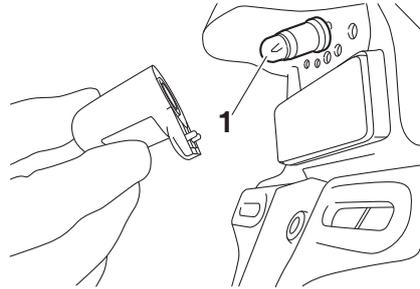
EAUM3511

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.



1. License plate light bulb

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.

Front wheel

EAU24361

EAU60841

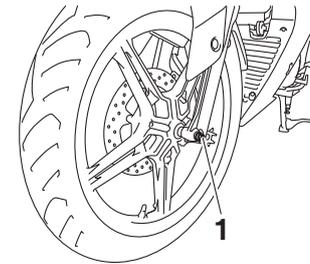
To remove the front wheel

EWA10822



WARNING
To avoid injury, securely support the vehicle so there is no danger of it falling over.

1. Place the motorcycle on the centerstand.
2. Remove the axle nut.



1. Axle nut

3. Pull the wheel axle out, and then remove the wheel. **NOTICE: Do not apply the brake after the**

Periodic maintenance and adjustment

wheel and brake disc have been removed, otherwise the brake pads will be forced shut. [ECA11073]

To install the front wheel

1. Lift the wheel up between the fork legs.
2. Insert the wheel axle, and then install the axle nut.
3. Take the motorcycle off the centerstand so that the front wheel is on the ground.
4. Tighten the axle nut to the specified torque.

Tightening torque:

Axle nut:
40 N·m (4.0 kgf·m, 30 lb·ft)

TIP

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

5. While applying the front brake, push down hard on the handlebars several times to check if the front fork compresses and rebounds smoothly.

Rear wheel

EAU25081

EAU66621

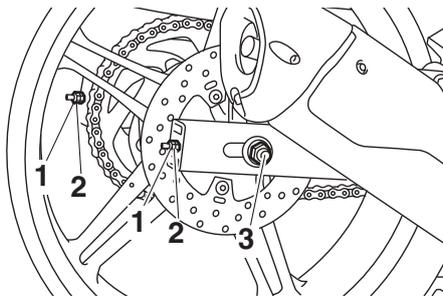
EWA10822

To remove the rear wheel

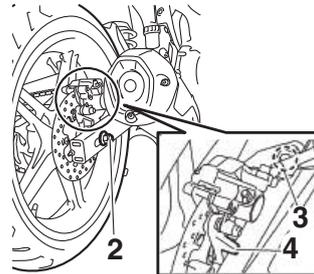


To avoid injury, securely support the vehicle so there is no danger of it falling over.

1. Loosen the locknut and drive chain slack adjusting nut on each side of the swingarm.
2. Loosen the axle nut and the brake caliper bracket bolt.



1. Locknut
2. Drive chain slack adjusting nut
3. Axle nut



1. Rear wheel
2. Wheel axle
3. Brake caliper bracket bolt
4. Brake caliper bracket

3. Place the motorcycle on the centerstand.
4. Remove the axle nut.
5. Push the wheel forward, and then remove the drive chain from the rear sprocket.

TIP

The drive chain does not need to be disassembled in order to remove and install the rear wheel.

6. While supporting the brake caliper and slightly lifting the wheel, pull the wheel axle out.

TIP _____
A rubber mallet may be useful to tap the wheel axle out.

7. Remove the wheel. **NOTICE: Do not apply the brake after the wheel and brake disc have been removed, otherwise the brake pads will be forced shut.** [ECA11073]

To install the rear wheel

1. Install the wheel and the brake caliper bracket by inserting the wheel axle from the right-hand side.

TIP _____

- Make sure that the slot in the brake caliper bracket is fit over the retainer on the swingarm.
- Make sure that there is enough space between the brake pads before installing the wheel.

2. Install the drive chain onto the rear sprocket.
3. Install the axle nut.
4. Adjust the drive chain slack. (See page 8-23.)

5. Take the motorcycle off the centerstand so that the rear wheel is on the ground, and then put the sidestand down.
6. Tighten the axle nut, the brake caliper bracket bolt, and then tighten the locknuts to the specified torques.

Tightening torques:

Axle nut:
59 N·m (5.9 kgf·m, 44 lb·ft)
Brake caliper bracket bolt:
39 N·m (3.9 kgf·m, 29 lb·ft)
Locknut:
7 N·m (0.7 kgf·m, 5.2 lb·ft)

Troubleshooting

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 charts represent quick and easy procedures 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.

WARNING

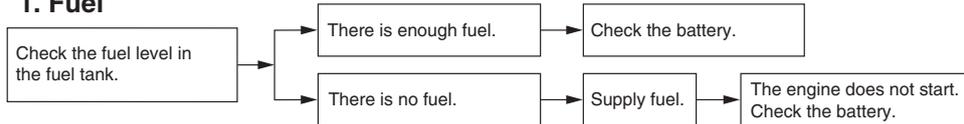
When checking the fuel system, do not smoke, and make sure there are no open flames or sparks in the area, including pilot lights from water

Periodic maintenance and adjustment

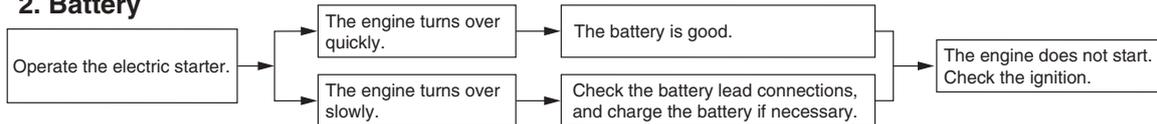
heaters or furnaces. Gasoline or gasoline vapors can ignite or explode, causing severe injury or property damage.

Troubleshooting chart

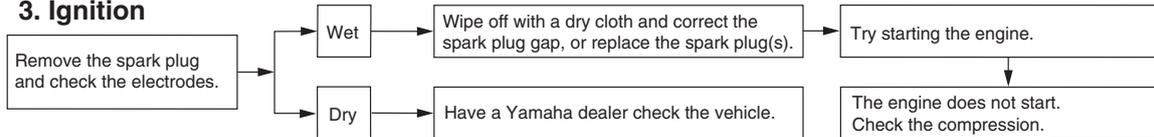
1. Fuel



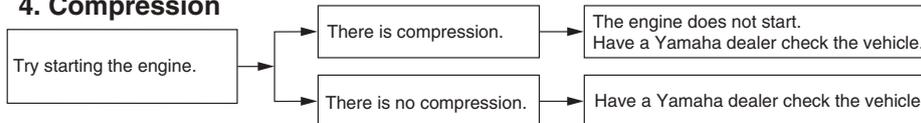
2. Battery



3. Ignition



4. Compression



Periodic maintenance and adjustment

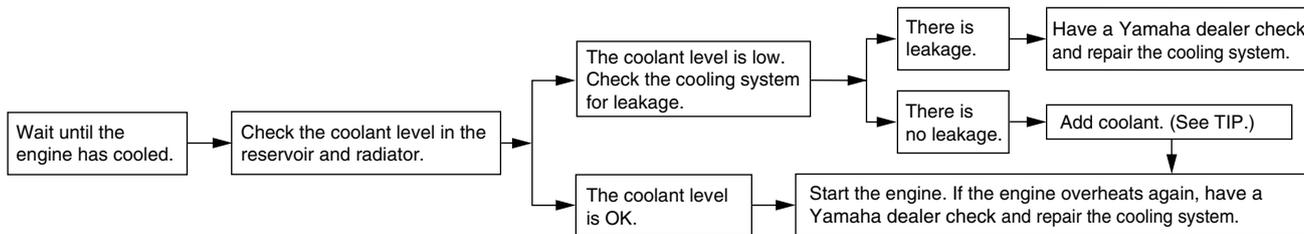
EAU86420

Engine overheating

EWAT1041

⚠ WARNING

- Do not remove the radiator cap when the engine and radiator are hot. Scalding hot fluid and steam may be blown out under pressure, which could cause serious injury. Be sure to wait until the engine has cooled.
- Place a thick rag, like a towel, over the radiator cap, and then slowly rotate the cap counterclockwise to the detent to allow any residual pressure to escape. When the hissing sound has stopped, press down on the cap while turning it counterclockwise, and then remove the cap.



TIP

If coolant is not available, tap water can be temporarily used instead, provided that it is changed to the recommended coolant as soon as possible.

Periodic maintenance and adjustment

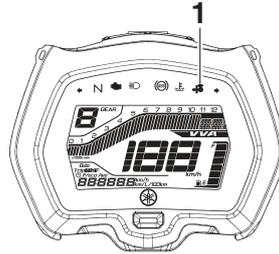
EAU76564

Emergency mode

When the smart key is lost or damaged, or its battery has discharged, the vehicle can still be turned on and the engine started. You will need the smart key system identification number.

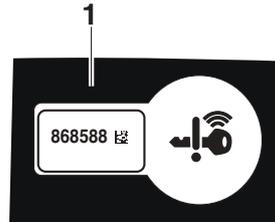
To operate the vehicle in emergency mode

1. Stop the vehicle in a safe place and confirm the main switch is set to either “” or “OFF”.
2. Push the main switch knob for 5 seconds until the smart key system indicator light flashes once, then release it. Repeat two more times. The smart key system indicator light will come on for three seconds to indicate the transition to emergency mode.



1. Smart key system indicator light “”

3. After the smart key system indicator light goes off, input the identification number as follows.



1. Identification number card

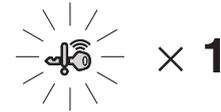
4. Inputting the identification number is done by counting the number of flashes of the smart key system indicator light.

For example, if the identification number is 123456:

Push and hold the knob.



The smart key system indicator light will start to flash.



Release the knob after the smart key system indicator light flashes once.



The first digit of the identification number has been set as “1”.



Push and hold the knob again.



Periodic maintenance and adjustment

Release the knob after the smart key system indicator light flashes twice.



The second digit has been set as “2”.



Repeat the above procedure until all digits of the identification number have been set. The smart key system indicator light will flash for 10 seconds if the correct identification number was entered.

TIP

When one of the following situations applies, emergency mode will be terminated and the smart key system indicator light will flash quickly for 3 seconds. In this case, start over again from step 2.

- When there are no knob operations for 10 seconds during the identification number input process.
- When the smart key system indicator light is allowed to flash nine or more times.

- The identification number is not entered correctly.

-
5. While the smart key system indicator light is on, push the knob once more to complete emergency mode access. The smart key indicator light will go off and then come back on for approximately 4 seconds.
 6. While the smart key system indicator light is on, turn the main switch to “ON”. The vehicle can now be operated normally.

Matte color caution

EAU37834

NOTICE

Some models are equipped with matte colored finished parts. Be sure to consult a Yamaha dealer for advice on what products to use before cleaning the vehicle. Using a brush, harsh chemical products or cleaning compounds when cleaning these parts will scratch or damage their surface. Wax also should not be applied to any matte colored finished parts.

ECA15193

Care

EAU84992

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.

Special care in winter

ECA28181

NOTICE

In cold weather, when roads may be salted as a de-icing method, it's important to clean the vehicle thoroughly to remove road salt and avoid corrosion. Wheel spokes, bolts/nuts and other unpainted metal parts can be especially vulnerable to corrosion from road salt. Apply an anti-corrosion product to any vulnerable parts after washing and drying the vehicle.

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

Motorcycle care and storage

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.

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.

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.

Motorcycle care and storage

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.

EAU83472

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):

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.
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

[EWA10952]

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 8-29 for more information on charging and storing the battery.
-

Specifications

Dimensions:

- Overall length:
1975 mm (77.8 in)
- Overall width:
665 mm (26.2 in)
- Overall height:
1105 mm (43.5 in)
- Seat height:
795 mm (31.3 in)
- Wheelbase:
1290 mm (50.8 in)
- Ground clearance:
150 mm (5.91 in)
- Minimum turning radius:
2.0 m (6.56 ft)

Weight:

- Curb weight:
123 kg (271 lb)

Engine:

- Combustion cycle:
4-stroke
- Cooling system:
Liquid cooled
- Valve train:
SOHC
- Number of cylinders:
Single cylinder
- Displacement:
155 cm³
- Bore × stroke:
58.0 × 58.7 mm (2.28 × 2.31 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:
0.85 L (0.90 US qt, 0.75 Imp.qt)
With oil filter removal:
0.95 L (1.00 US qt, 0.84 Imp.qt)

Coolant quantity:

- Coolant reservoir (up to the maximum level mark):
0.16 L (0.17 US qt, 0.14 Imp.qt)
- Radiator (including all routes):
0.41 L (0.43 US qt, 0.36 Imp.qt)

Fuel:

- Recommended fuel:
Unleaded gasoline (E10 to E20 only)
- Octane number (RON):
90
- Fuel tank capacity:
5.4 L (1.4 US gal, 1.2 Imp.gal)
- Fuel reserve amount:
0.7 L (0.18 US gal, 0.15 Imp.gal)

Fuel injection:

- Throttle body:
ID mark:
B5V1

Drivetrain:

- Gear ratio:
1st:
2.833 (34/12)
- 2nd:
1.875 (30/16)
- 3rd:
1.364 (30/22)
- 4th:
1.143 (24/21)
- 5th:
0.957 (22/23)
- 6th:
0.840 (21/25)

Front tire:

- Type:
Tubeless
- Size:
90/80-17M/C 46P
- Manufacturer/model:
IRC/NF67

Rear tire:

- Type:
Tubeless
- Size:
120/70-17M/C 58P
- Manufacturer/model:
IRC/NF67

Loading:

Maximum load:

150 kg (331 lb)

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

Auxiliary light:

LED

License plate light:

5.0 W

Front brake:

Type:

Hydraulic single disc brake

Rear brake:

Type:

Hydraulic single disc brake

Front suspension:

Type:

Telescopic fork

Rear suspension:

Type:

Swingarm

Electrical system:

System voltage:

12 V

Battery:

Model:

GTZ5S

Voltage, capacity:

12 V, 3.5 Ah (10 HR)

Bulb wattage:

Headlight:

LED

Brake/tail light:

LED

Front turn signal light:

10.0 W

Rear turn signal light:

10.0 W

Consumer information

EAU26366

Identification numbers

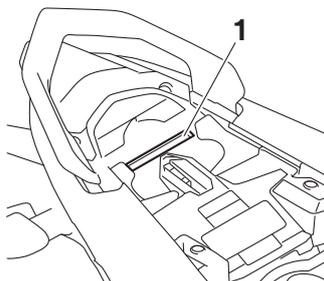
Record the vehicle identification number and the engine serial number in the spaces provided below for assistance when ordering spare parts from a Yamaha dealer or for reference in case the vehicle is stolen.

VEHICLE IDENTIFICATION NUMBER:

ENGINE SERIAL NUMBER:

Vehicle identification number

EAU0540



1. Vehicle identification number

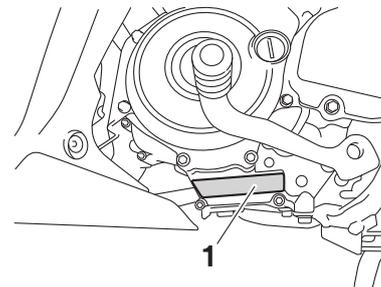
The vehicle identification number is stamped into the frame under the seat. (See page 5-11.)

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.

Engine serial number

EAU1221

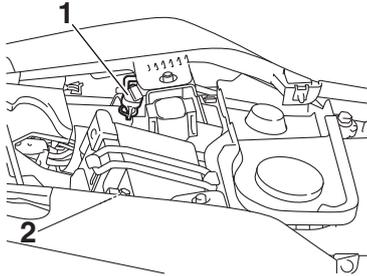


1. Engine serial number

The engine serial number is stamped on the bottom left side of the crankcase.

EAUM3881

Diagnostic connectors



1. FI diagnostic connector
2. ABS diagnostic connector

The ABS and Fuel Injection diagnostic connectors are located as shown.

Consumer information

EAUA1020

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?

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

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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