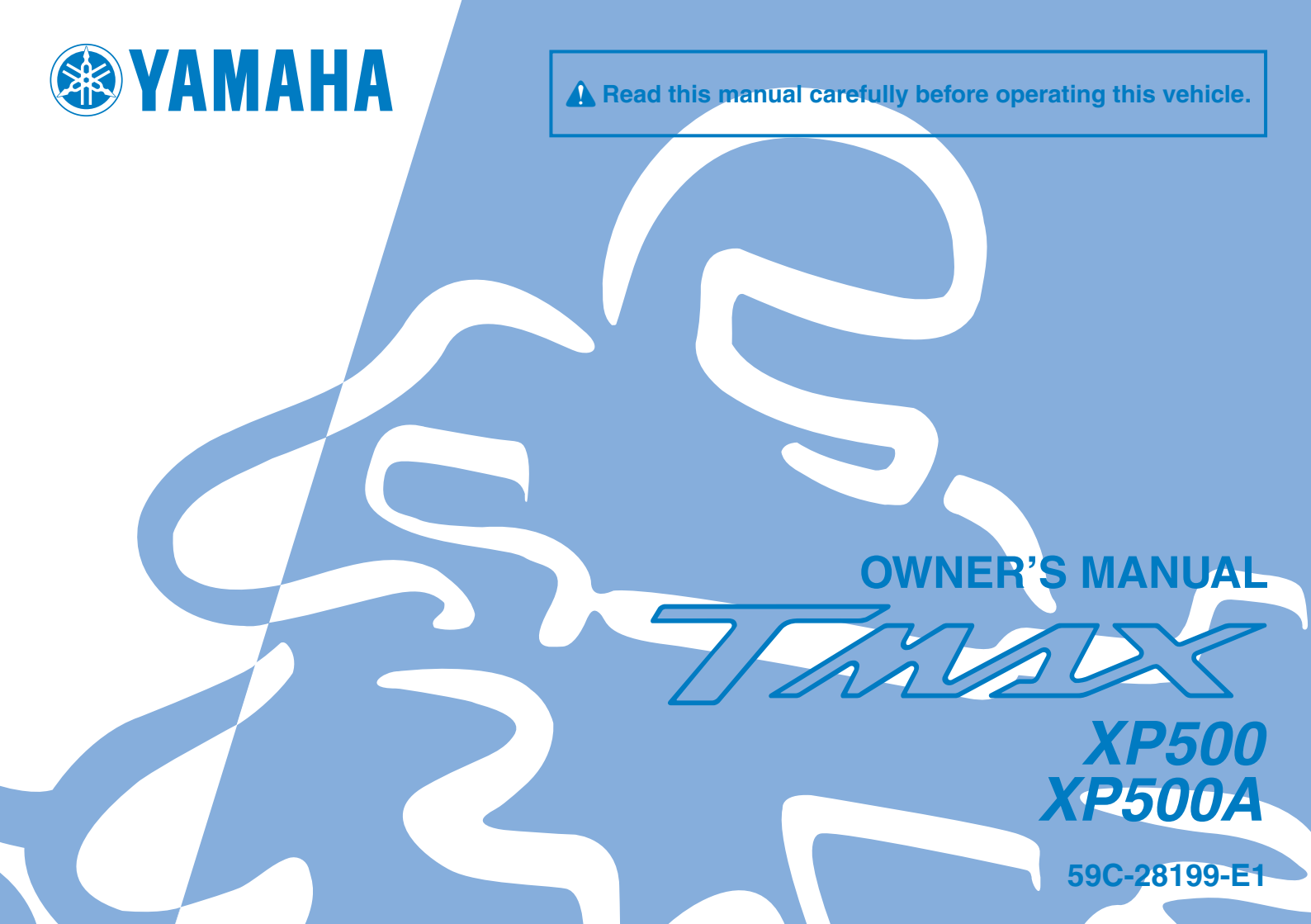
YAMAHA

⚠ Read this manual carefully before operating this vehicle.



OWNER'S MANUAL

TMAX

XP500
XP500A

59C-28199-E1

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

YAMAHA

YAMAHA MOTOR ELECTRONICS CO., LTD.
1450-6, Mori, Mori-machi, Shuchi-gun, Shizuoka-ken, 437-0292 Japan

DECLARATION of CONFORMITY

We

Company: YAMAHA MOTOR ELECTRONICS CO., LTD.
Address: 1450-6, Mori, Mori-Machi, Shuchi-gun, Shizuoka-Ken, 437-0292 Japan

Hereby declare that the product:

Kind of equipment: IMMOBILIZER
Type-designation: 5SL-00

is in compliance with following norm(s) or documents:

R&TTE Directive(1999/5/EC) **EN300 330-2 v1.3.1(2006-01), EN300 330-2 v1.5.1(2010-02)** **EN60950-1:2006/A11:2009** **Two or Three-Wheel Motor Vehicles Directive(97/24/EC: Chapter 8, EMC)**

Place of issue: Shizuoka, Japan

Date of issue: 1 Aug. 2002

Revision record		
No.	**Contents**	**Date**
1	**To change contact person and integrate type-designation.**	**9 Jun. 2005**
2	**Version up the norm of EN60950 to EN60950-1**	**27 Feb. 2006**
3	**To change company name**	**1 Mar. 2007**
4	**version up of the following norm:** **• EN300 330-2 v1.1.1 to EN300 330-2 v1.3.1 and EN300 330-2 v1.5.1** **• EN60950-1:2001 to EN60950-1:2006/A11:2009**	**8 Jul. 2010**

July 9th 2010

General manager of quality assurance div.

CE 0700 !

EAU10113

Welcome to the Yamaha world of motorcycling!
As the owner of the XP500/XP500A, 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 XP500/XP500A. The Owner's Manual does not only instruct you in how to operate, inspect and maintain your scooter, 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 scooter 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 scooter and this manual. If there is any question concerning this manual, please consult a Yamaha dealer.

EWA12411

⚠ WARNING

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

IMPORTANT MANUAL INFORMATION

EAU10133

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

*Product and specifications are subject to change without notice.

IMPORTANT MANUAL INFORMATION

EAU10200

XP500/XP500A
OWNER'S MANUAL

1st edition, June 2012

Printed in Japan.

TABLE OF CONTENTS

EAU1026A

1

Be a Responsible Owner

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

Scooters 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 scooter.

He or she should:

- Obtain thorough instructions from a competent source on all aspects of scooter 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 scooter without proper training or instruction. Take a training course. Beginners should receive training from a certified instructor. Contact an authorized scooter 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 4-1 for a list of pre-operation checks.

- This scooter is designed to carry the operator and a passenger.
- The failure of motorists to detect and recognize scooters in traffic is the predominating cause of automobile/scooter accidents. Many accidents have been caused by an automobile driver who did not see the scooter. Making yourself conspicuous appears 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 scooter accidents to occur.

  • Ride where other motorists can see you. Avoid riding in another motorist's blind spot.

  • Never maintain a scooter without proper knowledge. Contact an authorized scooter dealer to inform you on basic scooter 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 driver's license.

  • Make sure that you are qualified and that you only lend your scooter to other qualified operators.

  • Know your skills and limits. Staying within your limits may help you to avoid an accident.

  • We recommend that you prac-

tice riding your scooter where there is no traffic until you have become thoroughly familiar with the scooter and all of its controls.

- Many accidents have been caused by error of the scooter 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 scooter.
  - 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 scooter is designed for on-road use only. It is not suitable for off-road use.

Protective Apparel

The majority of fatalities from 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 wear an approved helmet.
- Wear a face shield or goggles. Wind in your unprotected eyes could contribute to an impairment of vision that could delay seeing a hazard.
- The use of a jacket, substantial shoes, trousers, gloves, etc., is effective in preventing or reducing abrasions or lacerations.
- Never wear loose-fitting clothes, otherwise they could catch on the control levers or wheels and cause injury or an accident.
- Always wear protective clothing that covers your legs, ankles, and feet. The engine or exhaust system become very hot during or after operation and can cause burns.
- A passenger should also observe the above precautions.

Avoid Carbon Monoxide Poisoning

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

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

MENT.

- 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 scooter can adversely affect stability and handling if the weight distribution of the scooter is changed. To avoid the possibility of an accident, use extreme caution when adding cargo or accessories to your scooter. Use extra care when riding a scooter 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 scooter:

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:
XP500 198 kg (437 lb)
XP500A 194 kg (428 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 scooter 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 scooter to minimize imbalance or instability.
- Shifting weights can create a sudden imbalance. Make sure that accessories and cargo are securely attached to the scooter before riding. Check accessory mounts and cargo restraints frequently.
  - Properly adjust the suspension for your load (suspension-adjustable models only), and check the condition and pressure of your tires.
  - Never attach any large or heavy items to the handlebar, front fork, or front fender. Such items can create unstable handling or a slow steering response.
- **This vehicle is not designed to pull a trailer or to be attached to a sidecar.**

Genuine Yamaha Accessories

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

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

Aftermarket Parts, Accessories, and Modifications

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

Keep the following guidelines in mind, as well as those provided under "Loading" when mounting accessories.

- Never install accessories or carry cargo that would impair the performance of your scooter. 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 scooter due to aerodynamic effects. Wind may attempt to lift the scooter, or the scooter may become unstable in cross winds. These accessories may also cause instability when passing or being passed by large vehicles.
  - Certain accessories can displace the operator from his or her normal riding position. This improper position limits the freedom of movement of the operator and may limit control ability, therefore, such accessories are not recommended.
- Use caution when adding electrical accessories. If electrical accessories exceed the capacity of the scooter'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 scooter were designed to match the performance capabilities and to provide the best combination of handling, braking, and comfort. Other tires, rims, sizes, and combinations may not be appropriate. Refer to page 6-17 for tire specifications and more information on replacing your tires.

Transporting the Scooter

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

- Remove all loose items from the scooter.
- Point the front wheel straight ahead on the trailer or in the truck bed, and choke it in a rail to prevent movement.
- Secure the scooter with tie-downs or suitable straps that are attached

to solid parts of the scooter, 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 scooter will not bounce excessively during transport.

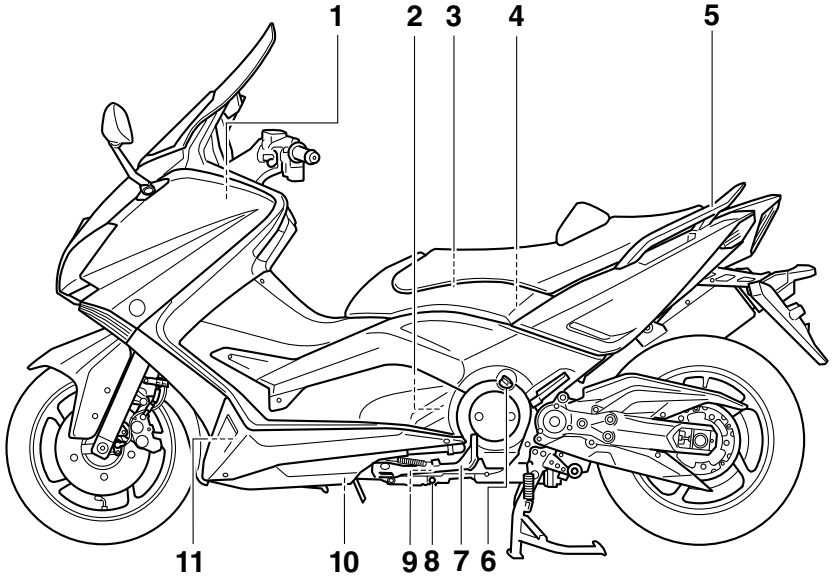
EAU10373

Further safe-riding points

- Be sure to signal clearly when making turns.
- Braking can be extremely difficult on a wet road. Avoid hard braking, because the scooter 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 scooter upright, otherwise it could slide out from under you.
- The brake pads could get wet when you wash the scooter. After washing the scooter, check the brakes before riding.
- Always wear a helmet, gloves, trousers (tapered around the cuff and ankle so they do not flap), and a bright colored jacket.
- Do not carry too much luggage on the scooter. An overloaded scooter is unstable. Use a strong cord to secure any luggage to the carrier (if equipped). A loose load will affect the stability of the scooter and could divert your attention from the road. (See page 1-3.)

EAU10410

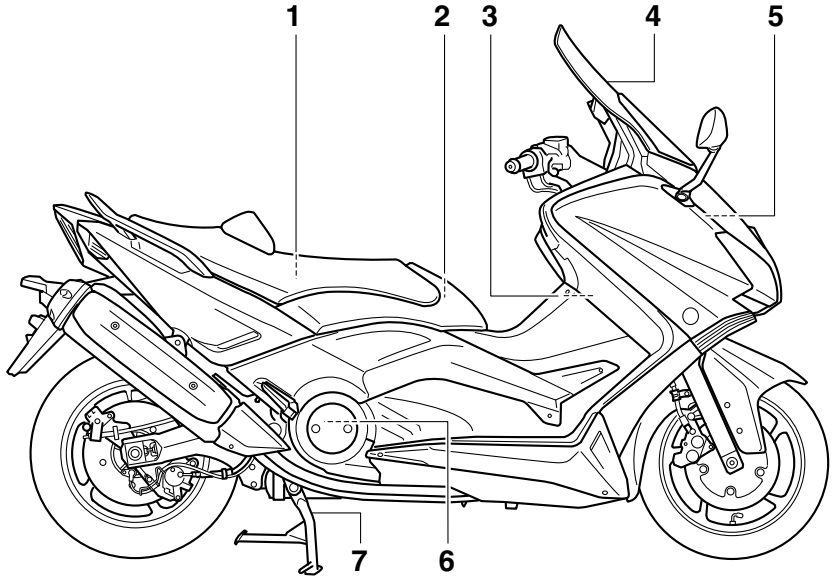
Left view



1. Battery (page 6-28)
2. V-belt air filter element (left)
3. Helmet holder (page 3-21)
4. Rear storage compartment (page 3-22)
5. Grab bar (page 5-2)
6. Engine oil filler cap (page 6-11)
7. Sidestand (page 3-26)
8. Engine oil drain bolt (page 6-11)
9. Engine oil level check window (page 6-11)
10. Oil filter cartridge (page 6-11)
11. Coolant level check window (page 6-14)

EAU10420

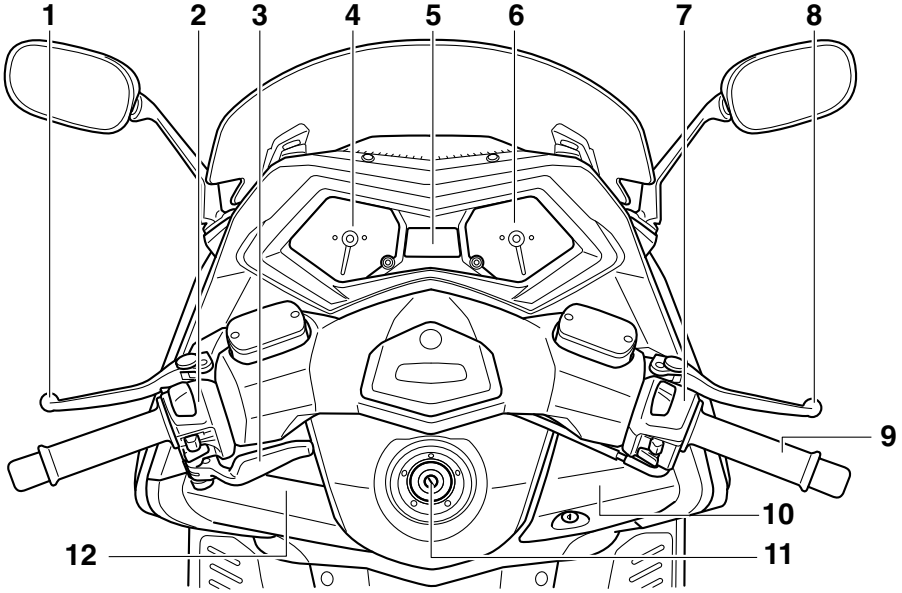
Right view



1. Owner's tool kit (page 6-2)
2. Fuel tank cap (page 3-17)
3. Air filter element (page 6-15)
4. Windshield (page 3-24)
5. Fuses (page 6-30)
6. V-belt air filter element (right)
7. Centerstand (page 6-26)

EAU10430

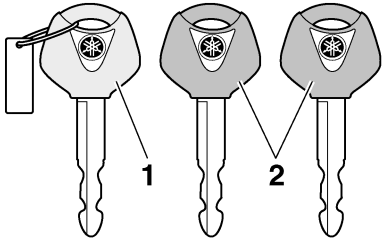
Controls and instruments



1. Rear brake lever (page 3-14)
2. Left handlebar switches (page 3-12)
3. Rear brake lock lever (page 3-15)
4. Speedometer (page 3-5)
5. Multi-function display (page 3-5)
6. Tachometer (page 3-5)
7. Right handlebar switches (page 3-12)
8. Front brake lever (page 3-14)
9. Throttle grip (page 6-17)
10. Front storage compartment B (page 3-22)
11. Main switch/steering lock (page 3-2)
12. Front storage compartment A (page 3-22)

EAU10977

Immobilizer system



1. Code re-registering key (red bow)
2. Standard keys (black bow)

This vehicle is equipped with an immobilizer system to help prevent theft by re-registering codes in the standard keys. This system consists of the following:

- a code re-registering key (with a red bow)
- two standard keys (with a black bow) that can be re-registered with new codes
- a transponder (which is installed in the code re-registering key)
- an immobilizer unit
- an ECU
- an immobilizer system indicator light (See page 3-4.)

The key with the red bow is used to register codes in each standard key. Since re-registering is a difficult process, take the vehicle along with all three keys to a Yamaha dealer to have them re-registered. Do not use the key with the red bow for driving. It should only be used for re-registering the standard keys. Always use a standard key for driving.

ECA11821

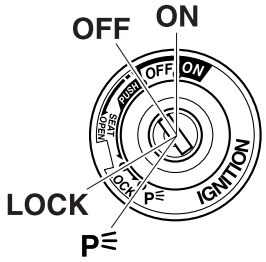
NOTICE

- **DO NOT LOSE THE CODE RE-REGISTERING KEY! CONTACT YOUR DEALER IMMEDIATELY IF IT IS LOST! If the code re-registering key is lost, registering new codes in the standard keys is impossible. The standard keys can still be used to start the vehicle, however if code re-registering is required (i.e., if a new standard key is made or all keys are lost) the entire immobilizer system must be replaced. Therefore, it is highly recommended to use either standard key and keep the code re-registering key in a safe place.**
- **Do not submerse any key in water.**
- **Do not expose any key to excessively high temperatures.**
- **Do not place any key close to magnets (this includes, but not limited to, products such as speakers, etc.).**
- **Do not place items that transmit electrical signals close to any key.**
- **Do not place heavy items on any key.**
- **Do not grind any key or alter its shape.**
- **Do not disassemble the plastic part of any key.**
- **Do not put two keys of any immobilizer system on the same key ring.**
- **Keep the standard keys as well as keys of other immobilizer systems away from this vehicle's code re-registering key.**
- **Keep other immobilizer system keys away from the main switch as they may cause signal inter-**

ference.

EAU10472

Main switch/steering lock



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

TIP

Be sure to use the standard key (black bow) for regular use of the vehicle. To minimize the risk of losing the code re-registering key (red bow), keep it in a safe place and only use it for code re-registering.

EAU10560

ON

All electrical circuits are supplied with power; the meter lighting, taillight, license plate light and auxiliary light come on, and the engine can be started. The key cannot be removed.

TIP

The headlight comes on automatically when the engine is started and stays on until the key is turned to “OFF” or the sidestand is moved down.

EAU10661

OFF

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

EWA10061

⚠ WARNING

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

EAU10684

LOCK

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

To lock the steering

1. Turn the handlebars all the way to

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

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

EAU34341

P⋜ (Parking)
The steering is locked, and the taillight, license plate light and auxiliary light are on. The hazard lights and turn signal lights can be turned on, but all other electrical systems are off. The key can be removed.
The steering must be locked before the key can be turned to “P⋜”.

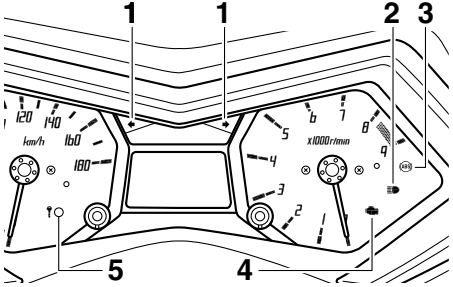
ECA11020

NOTICE

Do not use the parking position for an extended length of time, otherwise the battery may discharge.

EAU49392

Indicator lights and warning lights



1. Turn signal indicator lights “⇦” and “⇨”
2. High beam indicator light “≣○”
3. Anti-lock Brake System (ABS) warning light “(ABS)” (for ABS models)
4. Engine trouble warning light “”
5. Immobilizer system indicator light

EAU11030

Turn signal indicator lights “⇦” and “⇨”
The corresponding indicator light flashes when the turn signal switch is pushed to the left or right.

EAU11080

High beam indicator light “≣○”
This indicator light comes on when the high beam of the headlight is switched on.

EAU43023

Engine trouble warning light “”
This warning light comes on if an electrical circuit monitoring the engine is not working correctly. If this occurs, have a Yamaha dealer check the self-diagnosis system.
The electrical circuit of the warning light can be checked by turning the key to “ON”. The warning light should come on for a few seconds, and then go off.
If the warning light does not come on initially when the key is turned to “ON”, or if the warning light remains on, have a Yamaha dealer check the electrical circuit.

TIP
This warning light will come on when the key is turned to “ON” and the start switch is pushed, but this does not indicate a malfunction.

EAU53990

ABS warning light “(ABS)” (for ABS models)
In normal operation, the ABS warning

light comes on when the key is turned to “ON”, and goes off after traveling at a speed of 10 km/h (6 mi/h) or higher.
If the ABS warning light:

- does not come on when the key is turned to “ON”
- comes on or flashes while riding
- does not go off after traveling at a speed of 10 km/h (6 mi/h) or higher

The ABS may not work correctly. If any of the above occurs, have a Yamaha dealer check the system as soon as possible. (See page 3-16 for an explanation of the ABS.)

EWA16040

⚠ WARNING

If the ABS warning light does not go off after traveling at a speed of 10 km/h (6 mi/h) or higher, or if the warning light comes on or flashes while riding, the brake system reverts to conventional braking. If either of the above occurs, or if the warning light does not come on at all, use extra caution to avoid possible wheel lock during emergency braking. Have a Yamaha dealer check the brake system and electrical circuits as soon as possible.

TIP

- If the start switch is pushed while the engine is running, the ABS warning light will come on, but this is not a malfunction.
- The ABS warning light may come on while accelerating the engine with the scooter on its centerstand, but this does not indicate a malfunction.

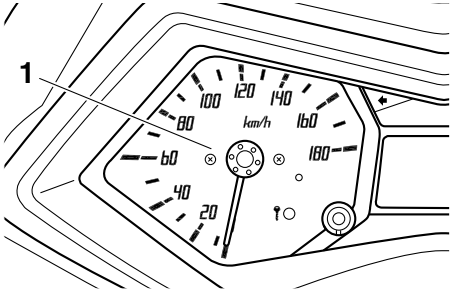
EAU38624

Immobilizer system indicator light

The electrical circuit of the indicator light can be checked by turning the key to “ON”. The indicator light should come on for a few seconds, and then go off.
If the indicator light does not come on initially when the key is turned to “ON”, or if the indicator light remains on, have a Yamaha dealer check the electrical circuit.
When the key is turned to “OFF” and 30 seconds have passed, the indicator light will start flashing indicating the immobilizer system is enabled. After 24 hours have passed, the indicator light will stop flashing, however the immobilizer system is still enabled.
The self-diagnosis device also detects problems in the immobilizer system circuits. (See page 3-11 for an explanation of the self-diagnosis device.)

EAU11601

Speedometer

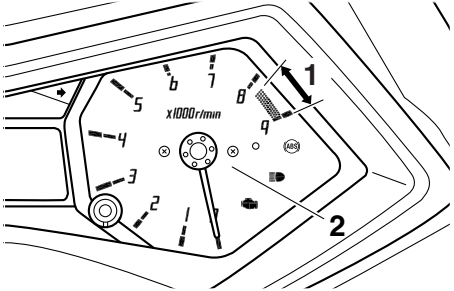


1. Speedometer

The speedometer shows the riding speed.
When the key is turned to “ON”, the speedometer needle will sweep once across the speed range and then return to zero in order to test the electrical circuit.

EAU11872

Tachometer



1. Tachometer red zone
2. Tachometer

The electric tachometer allows the rider to monitor the engine speed and keep it within the ideal power range.
When the key is turned to “ON”, the tachometer needle will sweep once across the r/min range and then return to zero r/min in order to test the electrical circuit.

ECA10031

NOTICE

Do not operate the engine in the tachometer red zone.
Red zone: 8250 r/min and above

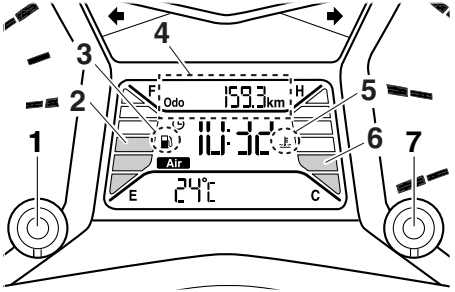
EAU52242

Multi-function display

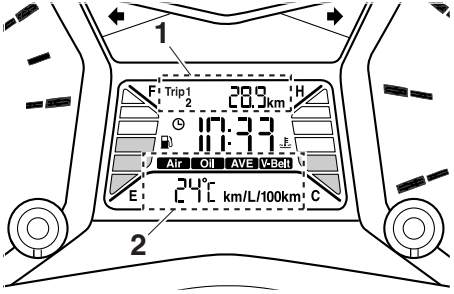
EWA12312

⚠ WARNING

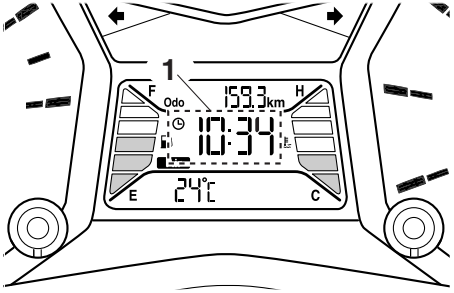
Be sure to stop the vehicle before making any setting changes to the multi-function display. Changing settings while riding can distract the operator and increase the risk of an accident.



1. Left set button
2. Fuel meter
3. Fuel level warning indicator “⛽”
4. Odometer
5. Coolant temperature warning indicator “🌡”
6. Coolant temperature meter
7. Right set button



1. Tripmeter/fuel reserve tripmeter
2. Ambient temperature/average fuel consumption/instantaneous fuel consumption



1. Clock

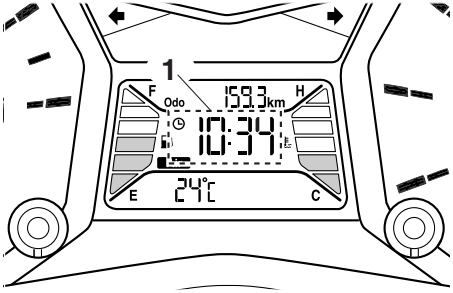
The multi-function display is equipped with the following:

- a fuel meter
- a coolant temperature meter
- an odometer
- two tripmeters (which show the distance traveled since they were last set to zero)
- a fuel reserve tripmeter (which shows the distance traveled when the remaining fuel in the fuel tank reaches approximately 3.0 L (0.79 US gal, 0.66 Imp.gal))
- a self-diagnosis device
- a clock
- an ambient temperature display
- a fuel consumption display (average and instantaneous consumption functions)
- an oil change tripmeter (which shows the distance traveled since the last engine oil change)
- a V-belt replacement tripmeter (which shows the distance traveled since the last V-belt replacement)

TIP

- Be sure to turn the key to "ON" before using the left and right set buttons.
- When the key is turned to "ON", all of the display segments of the multi-function display will appear one after the other and then disappear, in order to test the electrical circuits.

Clock



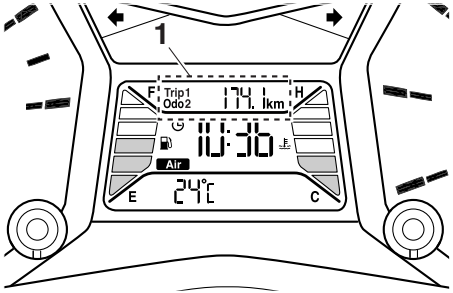
1. Clock

To set the clock:

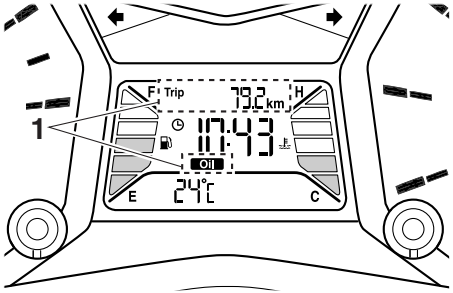
1. Push the left set button and right set button together for at least two seconds.
2. When the hour digits start flashing, push the right set button to set the hours.
3. Push the left set button, and the minute digits will start flashing.
4. Push the right set button to set the

minutes.
5. Push the left set button and then release it to start the clock.

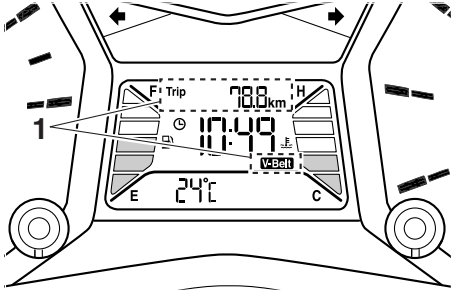
Odometer and tripmeter modes



1. Odometer/tripmeters/fuel reserve tripmeter

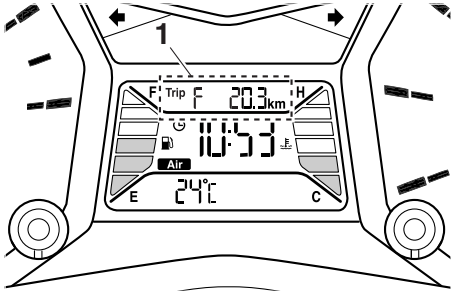


1. Oil change tripmeter



1. V-belt replacement tripmeter

Pushing the left set button switches the display between the odometer mode and the tripmeter modes in the following order:
Odo → Trip 1 → Trip 2 → V-Belt Trip → Oil Trip → Odo
When approximately 3.0 L (0.79 US gal, 0.66 Imp.gal) of fuel remains in the fuel tank, the display will automatically change to the fuel reserve tripmeter mode “Trip F” and start counting the distance traveled from that point. In that case, pushing the left set button switches the display between the various tripmeter and odometer modes in the following order:
Odo → Trip 1 → Trip 2 → Trip F → V-Belt Trip → Oil Trip → Odo



1. Fuel reserve tripmeter

To reset a tripmeter, select it by pushing the left set button until “Trip F”, “Trip 1” or “Trip 2” is displayed. While “Trip F”, “Trip 1” or “Trip 2” is displayed, push the left set button for at least one second. If you do not reset the fuel reserve tripmeter manually, it will reset itself automatically and the display will return to the prior mode after refueling and traveling 5 km (3 mi).

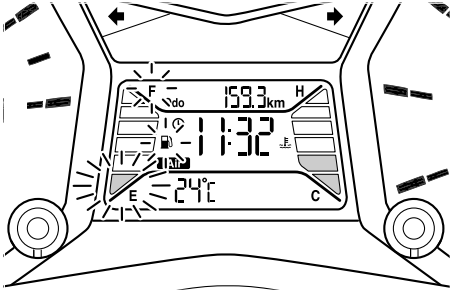
TIP

The display cannot be changed back to “Trip F” after pushing the left set button.

Fuel meter

With the key in the “ON” position, the

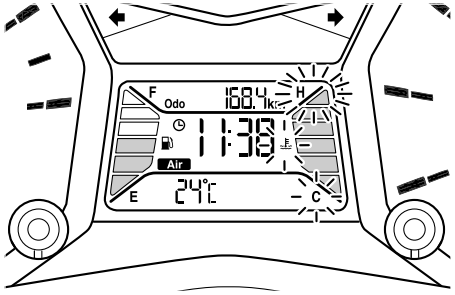
fuel meter indicates the amount of fuel in the fuel tank. The display segments of the fuel meter disappear towards “E” (Empty) as the fuel level decreases. When the fuel level reaches the bottom segment near “E”, the fuel level warning indicator, “F”, “E”, and the bottom segment will flash. Refuel as soon as possible.



Coolant temperature meter

With the key in the “ON” position, the coolant temperature meter indicates the temperature of the coolant. The coolant temperature varies with changes in the weather and engine load. If the top segment, “H”, “C”, and coolant temperature warning indicator flash, stop the vehicle and let the engine cool.

(See page 6-38.)

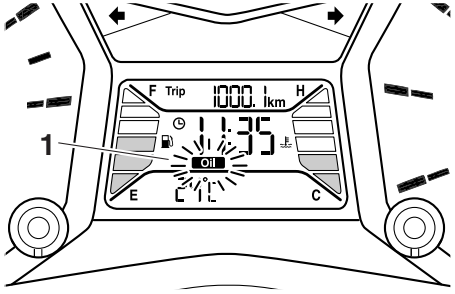


ECA10021

NOTICE

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

Oil change indicator “Oil”



1. Oil change indicator “Oil”

This indicator flashes at the initial 1000 km (600 mi), then at 5000 km (3000 mi) and every 5000 km (3000 mi) thereafter to indicate that the engine oil should be changed.

After changing the engine oil, reset the oil change indicator. To reset the oil change indicator, select it by pushing the left set button until “Oil Trip” is displayed, and then push the left set button at least one second. When pushing the left set button, “Oil Trip” starts flashing. While “Oil Trip” is flashing, push the left set button for at least three seconds.

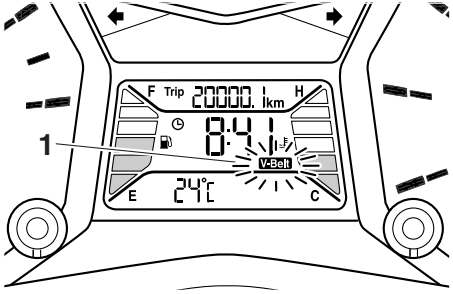
If the engine oil is changed before the oil change indicator “Oil” flashes (i.e. before the periodic oil change interval has been reached), the indicator “Oil” must be reset after the oil change for the next periodic oil change to be indicated at the correct time.

The electrical circuit of the indicator can be checked according to the following procedure.

1. Set the engine stop switch to “◯” and turn the key to “ON”.
2. Check that the oil change indicator comes on for a few seconds and

then goes off.
3. If the oil change indicator does not come on, have a Yamaha dealer check the electrical circuit.

V-belt replacement indicator "V-Belt"

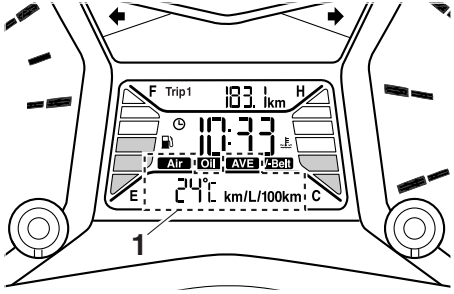


1. V-belt replacement indicator "V-Belt"

This indicator flashes every 20000 km (12500 mi) when the V-belt needs to be replaced.
After changing the V-belt, reset the V-belt replacement indicator. To reset the V-belt replacement indicator, select it by pushing the left set button until "V-Belt Trip" is displayed, and then push the left set button at least one second. When pushing the left set button, "V-Belt Trip" starts flashing. While "V-Belt Trip" is flashing, push the left set button for at least three seconds.
If the V-belt is changed before the V-belt replacement indicator "V-Belt" flashes (i.e. before the periodic V-belt change interval has been reached), the indicator "V-Belt" must be reset after the V-belt change for the next periodic V-belt change to be indicated at the correct time.
The electrical circuit of the indicator can be checked according to the following procedure.

1. Turn the key to "ON" and make sure that the engine stop switch is set to "◯".
2. Check that the V-belt replacement indicator comes on for a few seconds and then goes off.
3. If the V-belt replacement indicator does not come on, have a Yamaha dealer check the electrical circuit.

Ambient temperature display, average fuel consumption, and instantaneous fuel consumption modes



1. Ambient temperature/average fuel consumption/instantaneous fuel consumption

Push the right set button to switch the display between the ambient temperature display "Air", the average fuel consumption mode "AVE_ _._ km/L" or "AVE_ _._ L/100 km", and the instantaneous fuel consumption mode "km/L" or "L/100 km" in the following order:

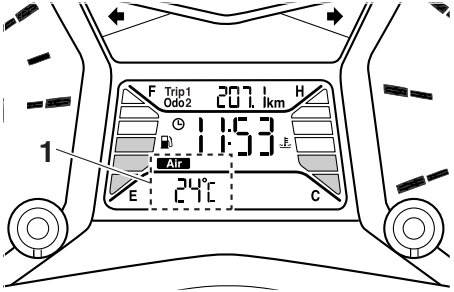
Air → AVE_ _._ km/L or AVE_ _._ L/100 km → km/L or L/100 km → Air

For the UK only:
Push the right set button to switch the display between the ambient tempera-

ture display “Air”, the average fuel consumption mode “AVE_ _._ MPG” and the instantaneous fuel consumption mode “MPG” in the following order:

Air → AVE_ _._ MPG → MPG → Air

Ambient temperature display



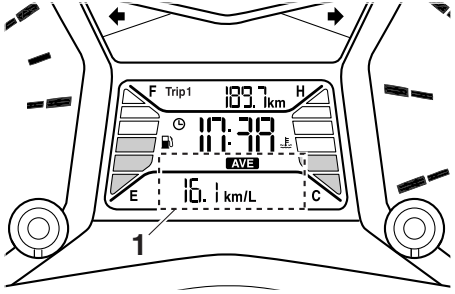
1. Ambient temperature display

This display shows the ambient temperature from –9 °C to 40 °C in 1 °C increments.

For the UK only:
15 °F to 104 °F in 1 °F increments.

The temperature displayed may vary from the ambient temperature. Pushing the right set button switches the ambient temperature display to the average fuel consumption and instantaneous fuel consumption modes.

Average fuel consumption mode



1. Average fuel consumption display

The average fuel consumption display can be set to either “AVE_ _._ km/L” or “AVE_ _._ L/100 km” (except for the UK).

For the UK only:
The average fuel consumption is displayed “AVE_ _._ MPG”.

This display shows the average fuel consumption since it was last reset.

- When the display is set to “AVE_ _._ km/L”, the average distance that can be traveled on 1.0 L of fuel is shown.
- When the display is set to “AVE_ _._ L/100 km”, the average amount of fuel necessary to travel 100 km is shown.
- For the UK only: When the display is set to “AVE_ _._ MPG”, the average distance that can be traveled on 1.0 Imp.gal of fuel is shown.

  To reset the average fuel consumption display, select it by pushing the right set button, and then push the right set button for at least one second.

TIP

After resetting an average fuel consumption display, “_ _._” is shown for that display until the vehicle has traveled 1 km (0.6 mi).

Instantaneous fuel consumption mode

1. Instantaneous fuel consumption display

The instantaneous fuel consumption display can be set to either “km/L” or “L/100 km” (except for the UK).

For the UK only:
The instantaneous fuel consumption is displayed “MPG”.

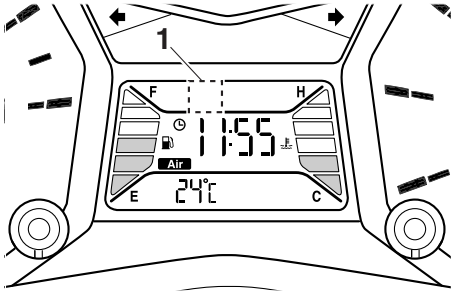
- When the display is set to “km/L”, the distance that can be traveled on 1.0 L of fuel under the current riding conditions is shown.
- When the display is set to “L/100 km”, the amount of fuel necessary to travel 100 km under the current riding conditions is shown.
- For the UK only: The distance that can be traveled on 1.0 Imp.gal of fuel under the current riding conditions is shown.

  To switch between the instantaneous fuel consumption displays, push the right set button for one second when one of the displays is shown (except for the UK).

TIP

If traveling at speeds under 10 km/h (6.0 mi/h), “_ _._” is displayed.

Self-diagnosis device



1. Error code display

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

If a problem is detected in any of those circuits, the engine trouble warning light comes on and the display indicates an error code.
If the display indicates any error codes, note the code number, and then have a Yamaha dealer check the vehicle.
The self-diagnosis device also detects problems in the immobilizer system circuits.
If a problem is detected in any of the immobilizer system circuits, the immobilizer system indicator light flashes and the display indicates an error code.

TIP

If the display indicates error code 52, this could be caused by transponder interference. If this error code appears, try the following.

1. Use the code re-registering key to start the engine.

TIP

Make sure there are no other immobilizer keys close to the main switch, and do not keep more than one immobilizer key on the same key ring! Immobilizer system keys may cause signal interference, which may prevent the engine

from starting.

2. If the engine starts, turn it off and try starting the engine with the standard keys.
3. If one or both of the standard keys do not start the engine, take the vehicle, the code re-registering key and both standard keys to a Yamaha dealer and have the standard keys re-registered.

ECA11590

NOTICE

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

EAU12331

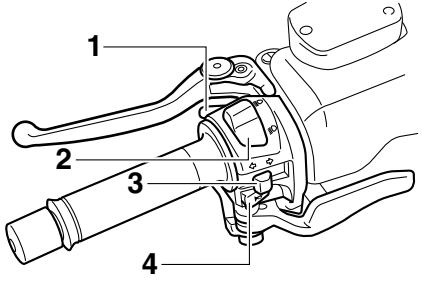
Anti-theft alarm (optional)

This model can be equipped with an optional anti-theft alarm by a Yamaha dealer. Contact a Yamaha dealer for more information.

EAU1234B

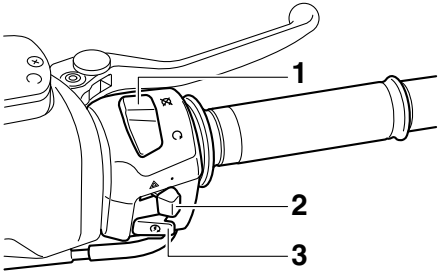
Handlebar switches

Left



1. Pass switch “PASS”
2. Dimmer switch “≣D/≣D”
3. Turn signal switch “⇦/⇨”
4. Horn switch “ ”

Right



1. Engine stop switch "◯/⊠"
2. Hazard switch "⚠"
3. Start switch "Ⓢ"

EAU12360

Pass switch "PASS"
Press this switch to flash the headlight.

EAU12400

Dimmer switch "≡D/≡D"
Set this switch to "≡D" for the high beam and to "≡D" for the low beam.

EAU12460

Turn signal switch "⇦/⇨"
To signal a right-hand turn, push this switch to "⇨". To signal a left-hand turn, push this switch to "⇦". When released, the switch returns to the center position. To cancel the turn signal lights, push the switch in after it has returned to the center position.

EAU12500

Horn switch "📯"
Press this switch to sound the horn.

EAU12660

Engine stop switch "◯/⊠"
Set this switch to "◯" before starting the engine. Set this switch to "⊠" to stop the engine in case of an emergency, such as when the vehicle overturns or when the throttle cable is stuck.

EAU12721

Start switch "Ⓢ"
With the sidestand up, push this switch while applying the front or rear brake to crank the engine with the starter. See page 5-1 for starting instructions prior to starting the engine.

EAU44710

The engine trouble warning light and ABS warning light (ABS model only) will come on when the key is turned to "ON" and the start switch is pushed, but this does not indicate a malfunction.

EAU12733

Hazard switch "⚠"
With the key in the "ON" or "P≷" position, use this switch to turn on the hazard lights (simultaneous flashing of all turn signal lights).
The hazard lights are used in case of an emergency or to warn other drivers when your vehicle is stopped where it might be a traffic hazard.

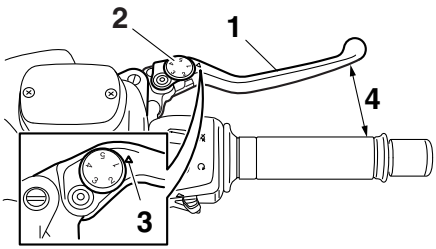
ECA10061

NOTICE

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

EAU44911

Front brake lever

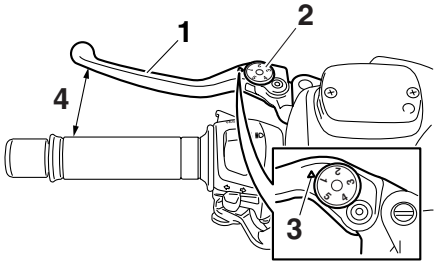


1. Front brake lever
2. Brake lever position adjusting dial
3. "△" mark
4. Distance between brake lever and handlebar grip

The front brake lever is located on the right side of the handlebar. To apply the front brake, pull this lever toward the throttle grip.
The front brake lever is equipped with a position adjusting dial. To adjust the distance between the front brake lever and the throttle grip, turn the adjusting dial while holding the front brake lever pushed away from the throttle grip. Make sure that the appropriate setting on the adjusting dial is aligned with the "△" mark on the front brake lever.

EAU44921

Rear brake lever



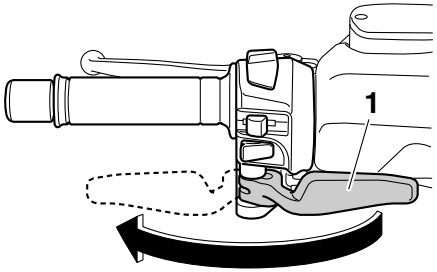
1. Rear brake lever
2. Brake lever position adjusting dial
3. "△" mark
4. Distance between brake lever and handlebar grip

The rear brake lever is located at the left handlebar grip. To apply the rear brake, pull this lever toward the handlebar grip.
The rear brake lever is equipped with a position adjusting dial. To adjust the distance between the rear brake lever and the handlebar grip, turn the adjusting dial while holding the rear brake lever pushed away from the handlebar grip. Make sure that the appropriate setting on the adjusting dial is aligned

with the "△" mark on the rear brake lever.

EAU12962

Rear brake lock lever



1. Rear brake lock lever

This vehicle is equipped with a rear brake lock lever to prevent the rear wheel from moving while stopped at traffic signals, railroad crossings, etc.

To lock the rear wheel
Push the rear brake lock lever to the left until it snaps into place.

To unlock the rear wheel
Push the rear brake lock lever back to the original position.

TIP

- Be sure to check that the rear wheel does not move when the rear brake lock lever is applied.
- To provide secure locking of the rear wheel, apply the rear brake lever first before moving the rear brake lock lever to the left.

EWA12361

⚠ WARNING

Never move the rear brake lock lever to the left while the vehicle is moving, otherwise loss of control or an accident may result. Make sure that the vehicle is stopped before moving the rear brake lock lever to the left.

EAU54000

ABS (for ABS models)

The Yamaha ABS (Anti-lock Brake System) features a dual electronic control system, which acts on the front and rear brakes independently.

Operate the brakes with ABS as you would conventional brakes. If the ABS is activated, a pulsating sensation may be felt at the brake levers. In this situation, continue to apply the brakes and let the ABS work; do not "pump" the brakes as this will reduce braking effectiveness.

EWA16050

⚠ WARNING

Always keep a sufficient distance from the vehicle ahead to match the riding speed even with ABS.

- **The ABS performs best with long braking distances.**
- **On certain surfaces, such as rough or gravel roads, the braking distance may be longer with the ABS than without.**

The ABS is monitored by an ECU, which will revert the system to conventional braking if a malfunction occurs.

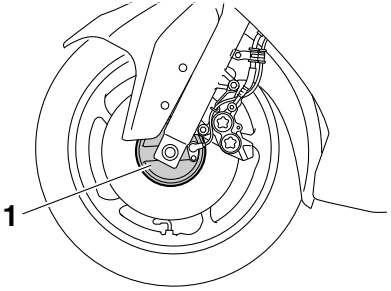
TIP

- The ABS performs a self-diagnosis test each time the vehicle first starts off after the key is turned to "ON" and the vehicle has traveled at a speed of 10 km/h (6 mi/h) or higher. During this test, a "clicking" noise can be heard from the front of the vehicle, and if either brake lever is even slightly applied, a vibration can be felt at the lever, but these do not indicate a malfunction.
- This ABS has a test mode which allows the owner to experience the pulsation at the brake levers when the ABS is operating. However, special tools are required, so please consult your Yamaha dealer when performing this test.

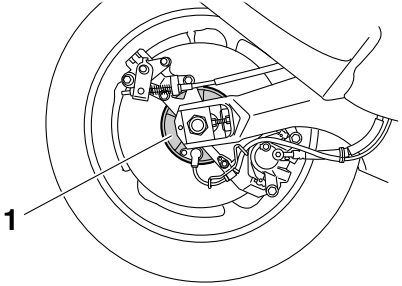
ECA16120

NOTICE

Keep any type of magnets (including magnetic pick-up tools, magnetic screwdrivers, etc.) away from the front and rear wheel hubs, otherwise the magnetic rotors equipped in the wheel hubs may be damaged, resulting in improper performance of the ABS system.



1. Front wheel hub



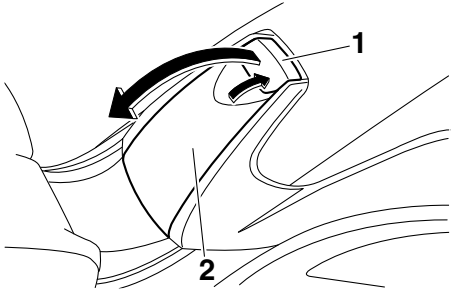
1. Rear wheel hub

EAU13175

Fuel tank cap

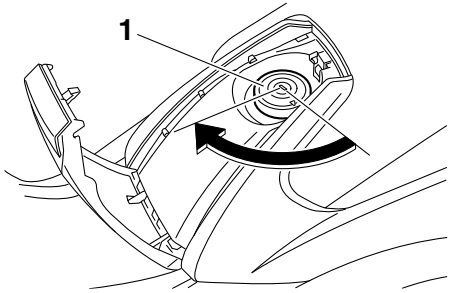
To remove the fuel tank cap

1. Open the lid by pulling the lever up.



1. Opening lever
2. Lid

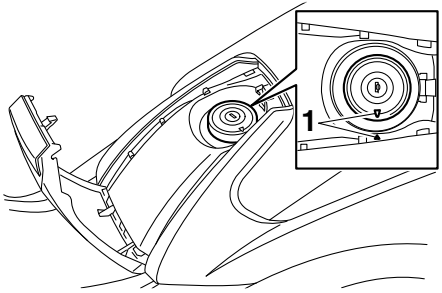
2. Insert the key into the lock and turn it clockwise. The lock will be released and the fuel tank cap can be removed.



1. Fuel tank cap

To install the fuel tank cap

1. Align the match marks, insert the fuel tank cap into the tank opening, and then push down on the cap.



1. Match mark

2. Turn the key counterclockwise to the original position, and then remove it.
3. Close the lid.

EWA11261

⚠ WARNING

Make sure that the fuel tank cap is properly installed and locked in place before riding the scooter. Leaking fuel is a fire hazard.

EAU13221

Fuel

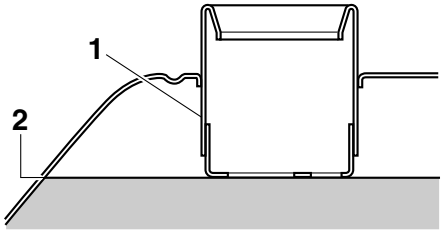
Make sure there is sufficient gasoline in the tank.

EWA10881

⚠ 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. When refueling, be sure to insert the pump nozzle into the fuel tank filler hole. Stop filling when the fuel reaches the bottom of the filler tube. Because fuel expands when it heats up, heat from the engine or the sun can cause fuel to spill out of the fuel tank.



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.**[ECA10071]
4. Be sure to securely close the fuel tank cap.

EWA15151

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

EAU49741

Recommended fuel:
Regular unleaded gasoline (Gasohol (E10) acceptable)
Fuel tank capacity:
15.0 L (3.96 US gal, 3.30 Imp.gal)
Fuel reserve amount:
3.0 L (0.79 US gal, 0.66 Imp.gal)

ECA11400

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.

Your Yamaha engine has been designed to use regular unleaded gasoline with a research octane number of 95 or higher. If knocking (or pinging) occurs, use a gasoline of a different brand or premium unleaded fuel. Use of un-

leaded fuel will extend spark plug life and reduce maintenance costs.

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

EAU13433

Catalytic converter

This model is equipped with a catalytic converter in the exhaust system.

EWA10862

⚠ 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.**

ECA10701

NOTICE

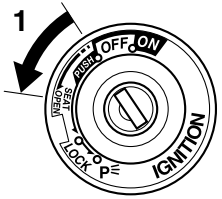
Use only unleaded gasoline. The use of leaded gasoline will cause unrepairable damage to the catalytic converter.

EAU13932

Seat

To open the seat

1. Place the scooter on the center-stand.
2. Insert the key into the main switch, and then turn it counterclockwise to “OPEN”.

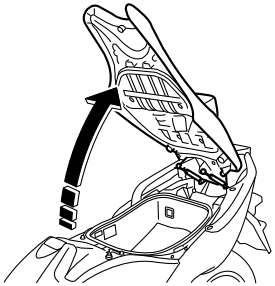


1. Open.

TIP

Do not push inward when turning the key.

3. Fold the seat up.



To close the seat

1. Fold the seat down, and then push it down to lock it in place.
2. Remove the key from the main switch if the scooter will be left unattended.

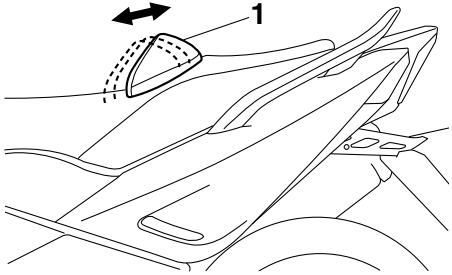
TIP

Make sure that the seat is properly secured before riding.

EAU14270

Adjusting the rider backrest

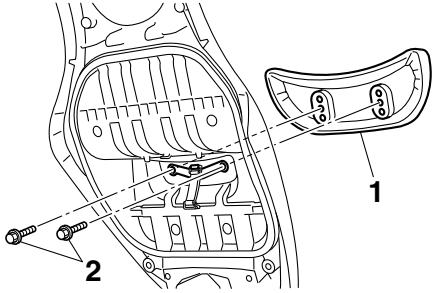
The rider backrest can be adjusted to the three different positions shown.



1. Rider backrest

Adjust the backrest as follows.

1. Open the seat. (See page 3-20.)
2. Remove the backrest bolts.

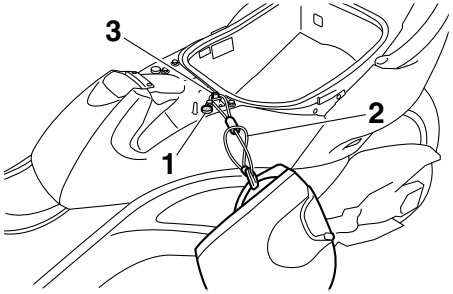


1. Rider backrest
2. Bolt

3. Slide the backrest forward or backward to the desired position.
4. Install and securely tighten the backrest bolts.
5. Close the seat.

EAU46300

Helmet holder



1. Shaded projection
2. Helmet holding cable
3. Helmet holder

The helmet holder is located under the seat. A helmet holding cable is provided beside the owner's tool kit to secure a helmet to the helmet holder.

To secure a helmet to the helmet holder

1. Open the seat. (See page 3-20.)
2. Pass the helmet holding cable through the buckle on the helmet strap as shown, and then hook the cable loop over the helmet holder.
3. Make sure the helmet holding cable is not touching the shaded projection, and 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.**[EWA10161]

To release the helmet from the helmet holder

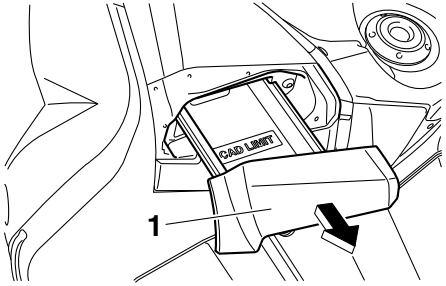
Open the seat, remove the helmet holding cable from the helmet holder and the helmet, and then close the seat.

EAU52221

Storage compartments

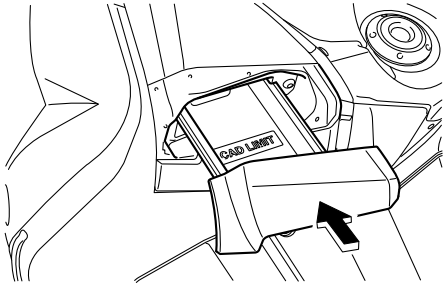
Front storage compartment A

To open the storage compartment, pull the lid as shown. **WARNING! Do not store heavy items in this compartment.**[EWA11161]

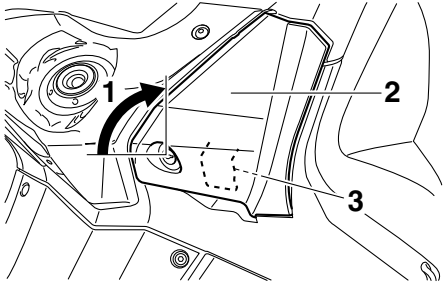


1. Front storage compartment A

To close the storage compartment, push the lid into the original position.



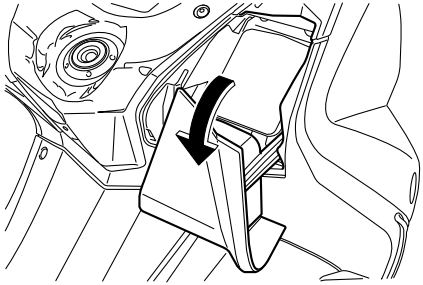
Front storage compartment B



1. Unlock.
2. Front storage compartment B
3. Storage compartment opening lever

To open the storage compartment when it is locked, insert the key in the lock, turn it clockwise, and then pull on the lever while pushing the lever up.

To open the storage compartment when it is unlocked, simply pull on the lever while pushing the lever up.

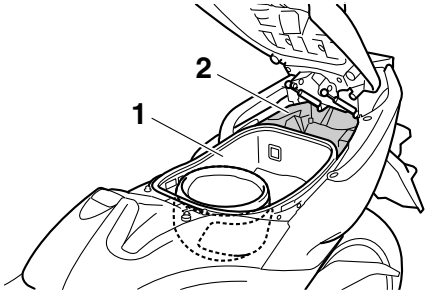


To close the storage compartment, push the lid into the original position.
To lock the storage compartment, push the lid into the original position, insert the key in the lock, turn it counterclockwise, and then remove it.

Rear storage compartment

A helmet can be stored in the rear storage compartment under the seat. (See page 3-20.) To store a helmet in the rear storage compartment, place the helmet upside down with the front facing the left side. ***NOTICE:*** **Keep the following points in mind when using the storage compartment. Since the**

storage compartment accumulates heat when exposed to the sun and/or the engine heat, do not store anything susceptible to heat, consumables or flammable items inside it. To avoid humidity from spreading through the storage compartment, wrap wet articles in a plastic bag before storing them in the compartment. Since the storage compartment may get wet while the scooter is being washed, wrap any articles stored in the compartment in a plastic bag. Do not keep anything valuable or breakable in the storage compartment. Do not leave the seat open for an extended period of time, otherwise the light may cause the battery to discharge.[ECA16082]
NOTICE: **The shaded area is not a storage compartment. To prevent damaging the seat hinges, do not place any items in this area.**[ECA16091]



1. Rear storage compartment
2. Shaded area

TIP

- Some helmets cannot be stored in the rear storage compartment because of their size or shape.
- Do not leave your scooter unattended with the seat open.

ECA11100

NOTICE

Do not leave the rider seat open for an extended period of time, otherwise the light may cause the battery to discharge.

EWA16120

⚠ WARNING

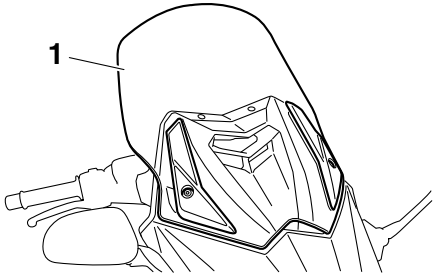
Do not exceed the following loading limits:

- **Front storage compartment A: 0.15 kg (0.3 lb)**
- **Front storage compartment B: 1 kg (2 lb)**
- **Rear storage compartment: 5 kg (11 lb)**
- **Maximum load for the vehicle: XP500 198 kg (437 lb) XP500A 194 kg (428 lb)**

EAU52211

Windshield

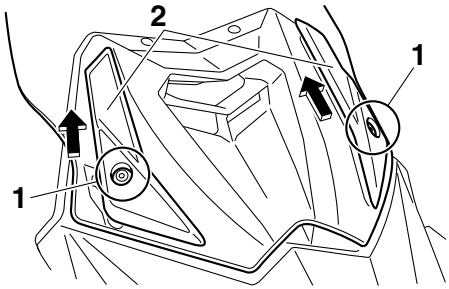
To suit the rider's preference, the windshield height can be changed to one of two positions.



1. Windshield

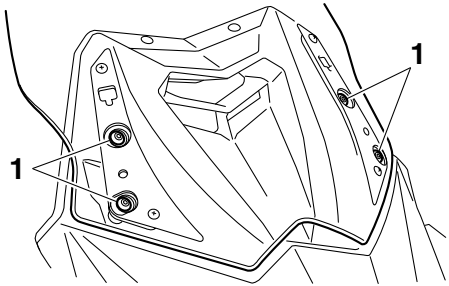
To adjust the windshield height

1. Remove the screw access covers by removing the quick fasteners.



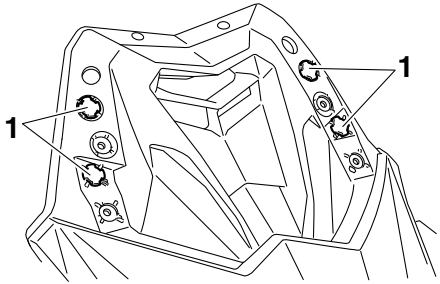
1. Quick fastener
2. Screw access cover

2. Remove the windshield by removing the screws.



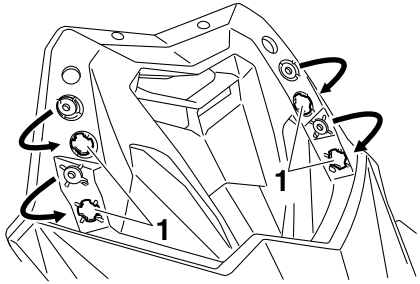
1. Screw

3. Remove the rubber caps.



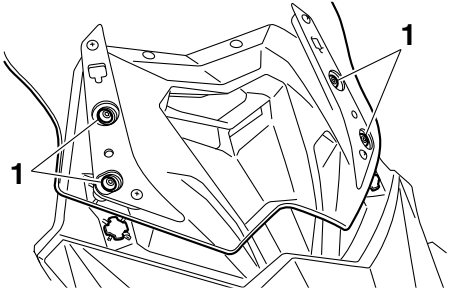
1. Rubber cap

4. Install the rubber caps in the desired position.

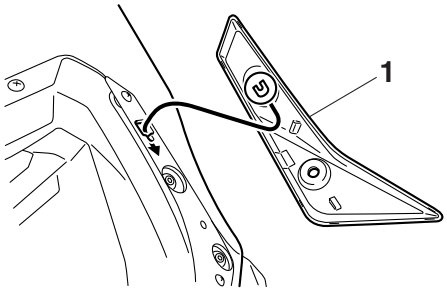


1. Rubber cap

5. Install the windshield to the desired position by installing the screws.



1. Screw



1. Screw access cover

6. Tighten the screws to the specified torque. **WARNING! A loose windshield could cause an accident. Be sure to tighten the screws to the specified torque.**[EWA15510]

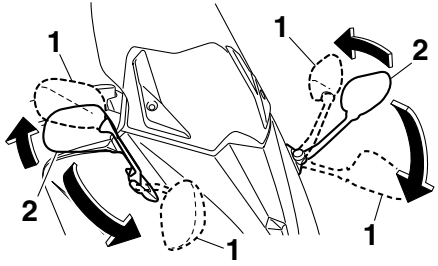
Tightening torque:
Windshield screw:
10 Nm (1.0 m·kgf, 7.2 ft·lbf)

7. Place the screw access covers, and then install the quick fasteners.

EAU39671

Rear view mirrors

The rear view mirrors of this vehicle can be folded forward or backward for parking in narrow spaces. Fold the mirrors back to their original position before riding.



1. Parking position
2. Riding position

EWA14371

⚠ WARNING

Be sure to fold the rear view mirrors back to their original position before riding.

EAU46021

Shock absorber assembly

EWA10221

⚠ WARNING

This shock absorber assembly contains highly pressurized nitrogen gas. Read and understand the following information before handling the shock absorber assembly.

- **Do not tamper with or attempt to open the cylinder assembly.**
- **Do not subject the shock absorber assembly to an open flame or other high heat source. This may cause the unit to explode due to excessive gas pressure.**
- **Do not deform or damage the cylinder in any way. Cylinder damage will result in poor damping performance.**
- **Do not dispose of a damaged or worn-out shock absorber assembly yourself. Take the shock absorber assembly to a Yamaha dealer for any service.**

EAU15305

Sidestand

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

TIP

The built-in sidestand switch is part of the ignition circuit cut-off system, which cuts the ignition in certain situations. (See the following section for an explanation of the ignition circuit cut-off system.)

EWA10241

⚠ WARNING

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. Yamaha's ignition circuit cut-off system has been designed to assist the operator in fulfilling the responsibility of raising the sidestand before starting off. Therefore, check this system regularly and have a Yamaha dealer repair it if it does not function properly.

EAU45052

Ignition circuit cut-off system

The ignition circuit cut-off system (comprising the sidestand switch and brake light switches) has the following functions.

- It prevents starting when the sidestand is up, but neither brake is applied.
- It prevents starting when either brake is applied, but the sidestand is still down.
- It cuts the running engine when the sidestand is moved down.

Periodically check the operation of the ignition circuit cut-off system according to the following procedure.

With the engine turned off:
1. Move the sidestand down.
2. Make sure that the engine stop switch is turned on.
3. Turn the key on.
4. Keep the front or rear brake applied.
5. Push the start switch.

Does the engine start?

NO **YES** → The sidestand switch may not be working correctly. **The scooter should not be ridden** until checked by a Yamaha dealer.

With the engine still off:
6. Move the sidestand up.
7. Keep the front or rear brake applied.
8. Push the start switch.

Does the engine start?

YES **NO** → The brake switch may not be working correctly. **The scooter should not be ridden** until checked by a Yamaha dealer.

With the engine still running:
9. Move the sidestand down.

Does the engine stall?

YES **NO** → The sidestand switch may not be working correctly. **The scooter should not be ridden** until checked by a Yamaha dealer.

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

⚠ WARNING

- **The vehicle must be placed on the center-stand during this inspection.**
- **If a malfunction is noted, have a Yamaha dealer check the system before riding.**

FOR YOUR SAFETY – PRE-OPERATION CHECKS

EAU15596

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.

EWA11151

⚠ 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	• Check fuel level in fuel tank. • Refuel if necessary. • Check fuel line for leakage. • Check fuel tank breather hose and overflow hose for obstructions, cracks or damage, and check hose connections.	3-18
Engine oil	• Check oil level in engine. • If necessary, add recommended oil to specified level. • Check vehicle for oil leakage.	6-11
Coolant	• Check coolant level in reservoir. • If necessary, add recommended coolant to specified level. • Check cooling system for leakage.	6-14
Front brake	• 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.	6-20, 6-22, 6-23

ITEM	CHECKS	PAGE
Rear brake	• 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.	6-20, 6-22, 6-23
Throttle grip	• 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.	6-17, 6-25
Wheels and tires	• Check for damage. • Check tire condition and tread depth. • Check air pressure. • Correct if necessary.	6-17, 6-19
Brake levers	• Make sure that operation is smooth. • Lubricate lever pivoting points if necessary.	6-25
Centerstand, sidestand	• Make sure that operation is smooth. • Lubricate pivots if necessary.	6-26
Chassis fasteners	• Make sure that all nuts, bolts and screws are properly tightened. • Tighten if necessary.	—
Instruments, lights, signals and switches	• Check operation. • Correct if necessary.	—
Sidestand switch	• Check operation of ignition circuit cut-off system. • If system is not working correctly, have Yamaha dealer check vehicle.	3-26

EAU15951

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.

EWA10271

⚠ WARNING

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

EAU48710

TIP

This model is equipped with:

- a lean angle sensor to stop the engine in case of a turnover. In this case, the multi-function display indicates error code 30, but this is not a malfunction. Turn the key to "OFF" and then to "ON" to clear the error code. Failing to do so will prevent the engine from starting even though the engine will crank when pushing the start switch.
- an engine auto-stop system. The engine stops automatically if left idling for 20 minutes. If the engine stops, simply push the start switch to restart the engine.

EAU54010

Starting the engine

ECA10250

NOTICE

See page 5-4 for engine break-in instructions prior to operating the vehicle for the first time.

In order for the ignition circuit cut-off system to enable starting, the sidestand must be up.

See page 3-27 for more information.

1. Turn the key to "ON" and make sure that the engine stop switch is set to "○".
   The following warning light, indicator light and indicators should come on for a few seconds, then go off.
   - Engine trouble warning light
   - Immobilizer system indicator light
   - V-belt replacement indicator
   - Oil change indicator

ECA17820

NOTICE

If the above warning light, indicator light, or indicators do not come on initially when the key is turned to "ON", or if a warning light, indicator

light, or indicators remains on, see pages 3-3, 3-5, 3-8, 3-9 or 3-11 for the corresponding warning light, indicator light or indicator circuit check.

For ABS models:

The ABS warning light should come on when the main switch is turned to "ON" and then go off after traveling at a speed of 10 km/h (6 mi/h) or higher.

ECA17680

NOTICE

If the ABS warning light does not come on and then go off as explained above, see page 3-3 for the indicator light circuit check.

2. Close the throttle completely.
3. Start the engine by pushing the start switch while applying the front or rear brake.
   If the engine does not start, release the start switch, wait a few seconds, and then try again. Each starting attempt should be as short as possible to preserve the battery. Do not crank the engine more than 10 seconds on any one attempt.

ECA11042

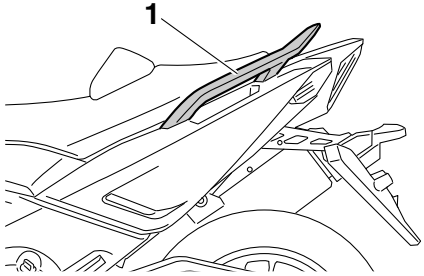
NOTICE

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

EAU45091

Starting off

1. While pulling the rear brake lever with your left hand and holding the grab bar with your right hand, push the scooter off the centerstand.

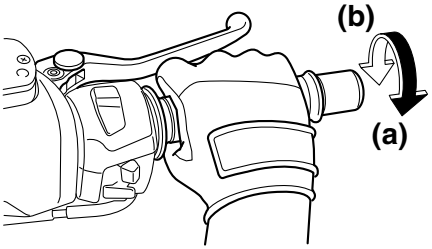


1. Grab bar

2. Sit astride the seat, and then adjust the rear view mirrors.
3. Switch the turn signals on.
4. Check for oncoming traffic, and then slowly turn the throttle grip (on the right) in order to take off.
5. Switch the turn signals off.

EAU16780

Acceleration and deceleration



The speed can be adjusted by opening and closing the throttle. To increase the speed, turn the throttle grip in direction (a). To reduce the speed, turn the throttle grip in direction (b).

EAU16793

Braking

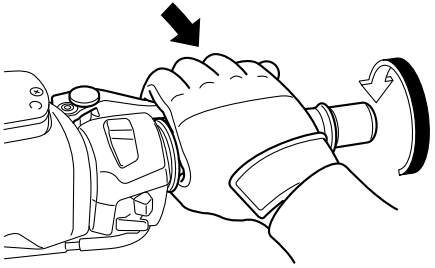
EWA10300

⚠ WARNING

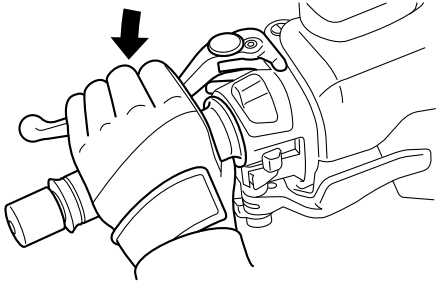
- **Avoid braking hard or suddenly (especially when leaning over to one side), otherwise the scooter may skid or overturn.**
- **Railroad crossings, streetcar rails, iron plates on road construction sites, and manhole covers become extremely slippery when wet. Therefore, slow down when approaching such areas and cross them with caution.**
- **Keep in mind that braking on a wet road is much more difficult.**
- **Ride slowly down a hill, as braking downhill can be very difficult.**

1. Close the throttle completely.
2. Apply both front and rear brakes simultaneously while gradually increasing the pressure.

Front



Rear



EAU16820

Tips for reducing fuel consumption

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

- Avoid high engine speeds during acceleration.
- 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).

EAU16841

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.

EAU36531

0–1000 km (0–600 mi)

Avoid prolonged operation above 4100 r/min. ***NOTICE:*** **After 1000 km (600 mi) of operation, the engine oil must be changed, and the oil filter cartridge or element replaced.**[ECA11282]

1000–1600 km (600–1000 mi)

Avoid prolonged operation above 5000 r/min.

1600 km (1000 mi) and beyond

The vehicle can now be operated normally.

ECA10310

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.**

5

EAU17213

Parking

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

EWA10311

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.**

EAU17244

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.

EWA10321

⚠ 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.

EWA15122

⚠ 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 1-2 for more information about carbon monoxide.**

EWA15460

⚠ WARNING

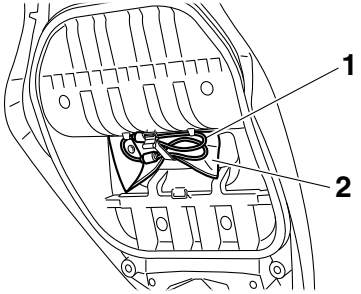
Brake discs, calipers, drums, and linings can become very hot during use. To avoid possible burns, let brake components cool before touching them.

EAU17302

Emission controls not only function to ensure cleaner air, but are also vital to proper engine operation and maximum performance. In the following periodic maintenance charts, the services related to emissions control are grouped separately. These services require specialized data, knowledge, and equipment. Maintenance, replacement, or repair of the emission control devices and systems may be performed by any repair establishment or individual that is certified (if applicable). Yamaha dealers are trained and equipped to perform these particular services.

EAU17391

Owner's tool kit



1. Helmet holding cable
2. Owner's tool kit

The owner's tool kit is located under the seat. (See page 3-20.)
The service information included in this manual and the tools provided in the owner's tool kit are intended to assist you in the performance of preventive maintenance and minor repairs. However, additional tools such as a torque wrench may be necessary to perform certain maintenance work correctly.

TIP

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

EAU46861

TIP

- **The annual checks must be performed every year, except if a kilometer-based maintenance, or for the UK, a mileage-based maintenance, is performed instead.**
- From 50000 km (30000 mi), repeat the maintenance intervals starting from 10000 km (6000 mi).
- Items marked with an asterisk should be performed by a Yamaha dealer as they require special tools, data and technical skills.

EAU46910

Periodic maintenance chart for the emission control system

NO.		ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING					ANNUAL CHECK
				1000 km (600 mi)	10000 km (6000 mi)	20000 km (12000 mi)	30000 km (18000 mi)	40000 km (24000 mi)	
1	*	**Fuel line**	• Check fuel hoses for cracks or damage.		√	√	√	√	√
2	*	**Spark plugs**	• Check condition. • Clean and regap.		√		√		
			• Replace.			√		√	
3	*	**Valves**	• Check valve clearance. • Adjust.	Every 40000 km (24000 mi)					
4	*	**Fuel injection**	• Adjust engine idling speed and synchronization.	√	√	√	√	√	√

6

EAU1770E

General maintenance and lubrication chart

NO.		ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING					ANNUAL CHECK
				1000 km (600 mi)	10000 km (6000 mi)	20000 km (12000 mi)	30000 km (18000 mi)	40000 km (24000 mi)	
1		**Air filter element**	• Replace.			√		√	
2	*	**V-belt case air filter elements**	• Clean.		√		√		
			• Replace.			√		√	
3	*	**Front brake**	• Check operation, fluid level and vehicle for fluid leakage.	√	√	√	√	√	√
			• Replace brake pads.	Whenever worn to the limit					
4	*	**Rear brake**	• Check operation, fluid level and vehicle for fluid leakage.	√	√	√	√	√	√
			• Replace brake pads.	Whenever worn to the limit					
5	*	**Brake hoses**	• Check for cracks or damage. • Check for correct routing and clamping.		√	√	√	√	√
			• Replace.	Every 4 years					
6		**Rear brake lock cable**	• Check cable length. • Adjust if necessary.	√	4000 km (2400 mi) after the initial 1000 km (600 mi) and every 5000 km (3000 mi) thereafter				
7	*	**Rear brake lock**	• Check operation. • Check rubber boot. • Check wear indicator. • Adjust if necessary.	√	√	√	√	√	√
8	*	**Wheels**	• Check runout and for damage.		√	√	√	√	
9	*	**Tires**	• Check tread depth and for damage. • Replace if necessary. • Check air pressure. • Correct if necessary.		√	√	√	√	√
10	*	**Wheel bearings**	• Check bearing for looseness or damage.		√	√	√	√	

NO.		ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING					ANNUAL CHECK
				1000 km (600 mi)	10000 km (6000 mi)	20000 km (12000 mi)	30000 km (18000 mi)	40000 km (24000 mi)	
11	*	**Drive belt**	• Check belt condition. • Replace if damaged. • Check belt tension. • Adjust if necessary.	√	Every 10000 km (6000 mi) until 40000 km (24000 mi), and every 5000 km (3000 mi) thereafter				
12	*	**Drive pulley and drive axle**	• Lubricate.			√		√	
13	*	**Steering bearings**	• Check bearing play and steering for roughness.	√	√	√	√	√	
			• Lubricate with lithium-soap-based grease.	Every 20000 km (12000 mi)					
14	*	**Chassis fasteners**	• Make sure that all nuts, bolts and screws are properly tightened.		√	√	√	√	√
15		**Front brake lever pivot shaft**	• Lubricate with silicone grease.		√	√	√	√	√
16		**Rear brake lever pivot shaft**	• Lubricate with silicone grease.		√	√	√	√	√
17		**Sidestand, centerstand**	• Check operation. • Lubricate with lithium-soap-based grease.		√	√	√	√	√
18	*	**Sidestand switch**	• Check operation.	√	√	√	√	√	√
19	*	**Front fork**	• Check operation and for oil leakage.		√	√	√	√	
20	*	**Shock absorber assembly**	• Check operation and shock absorber for oil leakage.		√	√	√	√	
21		**Engine oil**	• Change. (See pages 3-8 and 6-11.)	√	When the oil change indicator flashes				
			• Check oil level and vehicle for oil leakage.	Every 5000 km (3000 mi)					√
22		**Engine oil filter cartridge**	• Replace.	√		√		√	

6

NO.		ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING					ANNUAL CHECK
				1000 km (600 mi)	10000 km (6000 mi)	20000 km (12000 mi)	30000 km (18000 mi)	40000 km (24000 mi)	
23	*	**Cooling system**	• Check coolant level and vehicle for coolant leakage.		√	√	√	√	√
			• Change coolant.	Every 3 years					
24	*	**V-belt**	• Replace.	When the V-belt replacement indicator flashes [every 20000 km (12500 mi)]					
25	*	**Front and rear brake switches**	• Check operation.	√	√	√	√	√	√
26		**Moving parts and cables**	• Lubricate.		√	√	√	√	√
27	*	**Throttle grip**	• Check operation. • Check throttle grip free play, and adjust if necessary. • Lubricate cable and grip housing.		√	√	√	√	√
28	*	**Lights, signals and switches**	• Check operation. • Adjust headlight beam.	√	√	√	√	√	√

EAU38262

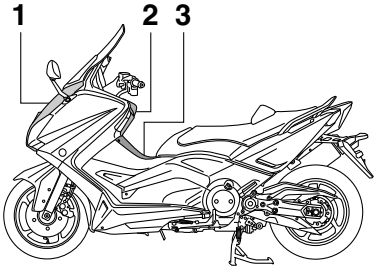
TIP

- Engine air filter and V-belt air filters
  - This model's engine air filter is equipped with a disposable oil-coated paper element, which must not be cleaned with compressed air to avoid damaging it.
  - The engine air filter element needs to be replaced and the V-belt air filter elements need to be serviced more frequently when riding in unusually wet or dusty areas.
- Hydraulic brake service
  - After disassembling the brake master cylinders and calipers, always change the fluid. Regularly check the brake fluid levels and fill the reservoirs as required.
  - Every two years replace the internal components of the brake master cylinders and calipers, and change the brake fluid.
  - Replace the brake hoses every four years and if cracked or damaged.

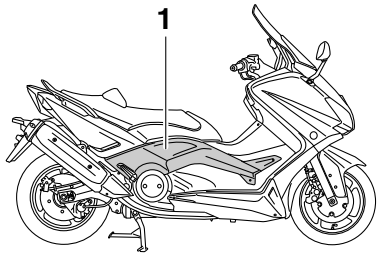
EAU18771

Removing and installing panels

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



1. Panel A
2. Panel B
3. Panel C



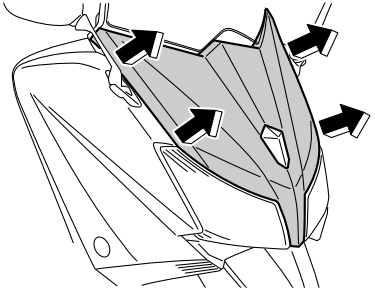
1. Panel D

EAU52011

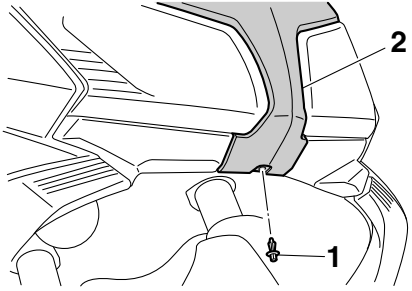
Panel A

To remove the panel

1. Remove the panel by pulling its upper left and right sides to unhook them as shown.

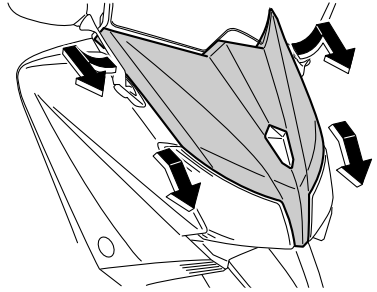


2. Remove the quick fastener.

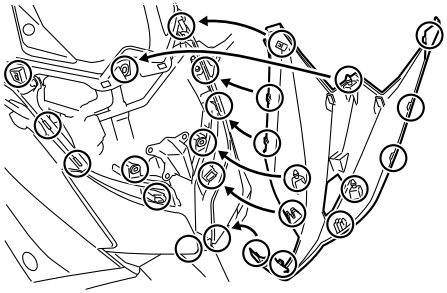


1. Quick fastener
2. Panel A

3. Remove the panel as shown.

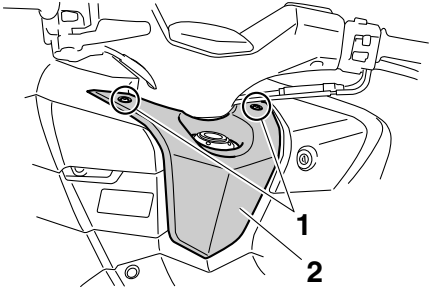


To install the panel
Place the panel in the original position, and then install the quick fastener.



Panel B

To remove the panel
Remove the screws, and then pull the panel upward.

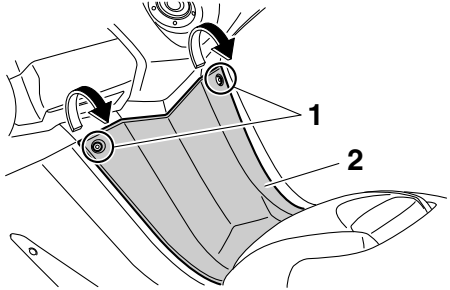


1. Screw
2. Panel B

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

Panel C

To remove the panel
Remove the screws, and then pull the panel backward and upward.



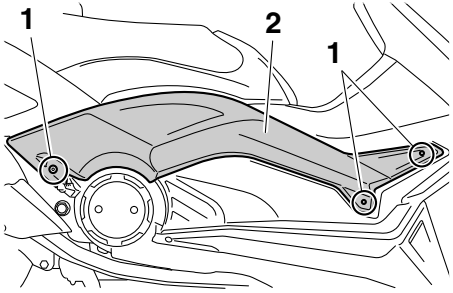
1. Screw
2. Panel C

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

Panel D

To remove the panel
Remove the screws, and then pull the panel outward.

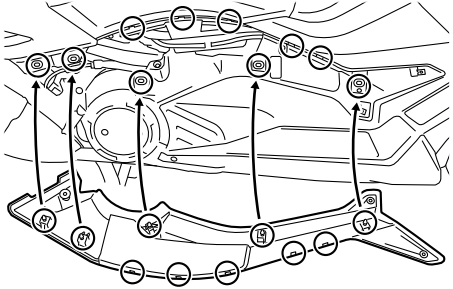
6



1. Screw
2. Panel D

To install the panel

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



EAU19642

Checking the spark plugs

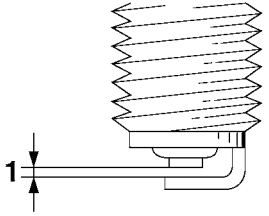
The spark plugs are important engine components, which should be checked periodically, preferably by a Yamaha dealer. Since heat and deposits will cause any spark plug to slowly erode, they should be removed and checked in accordance with the periodic maintenance and lubrication chart. In addition, the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

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

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

Specified spark plug:
NGK/CR7E

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



1. Spark plug gap

Spark plug gap:
0.7–0.8 mm (0.028–0.031 in)

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

Tightening torque:
Spark plug:
13 Nm (1.3 m·kgf, 9.4 ft·lbf)

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.

EAU1985C

Engine oil and oil filter cartridge

The engine oil level should be checked before each ride. In addition, the oil must be changed and the oil filter cartridge 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 two minutes, and then turn it off.

ECA11290

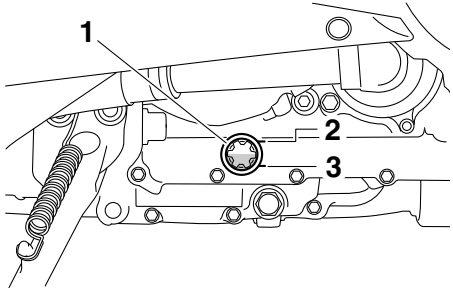
NOTICE

The engine must be cold before proceeding with the oil level check, otherwise the check will result in a false reading.

3. Wait two minutes until the oil settles, and then check the oil level through the check window located at the bottom-left side of the crankcase.

TIP

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



1. Engine oil level check window
2. Maximum level mark
3. Minimum level mark

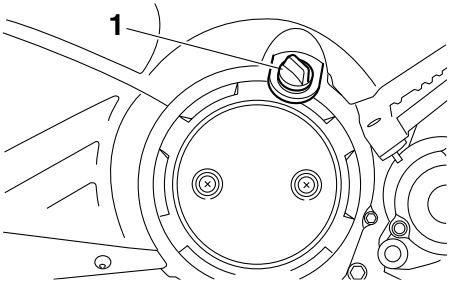
4. If the engine oil is below the minimum level mark, add sufficient oil of the recommended type to raise it to the correct level.

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

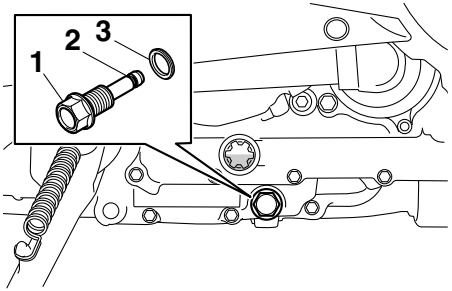
1. Place the vehicle on a level surface.
2. Start the engine, warm it up for several minutes, and then turn it

off.

3. Place an oil pan under the engine to collect the used oil.
4. Remove the engine oil filler cap, the engine oil drain bolt and its gasket to drain the oil from the crankcase.

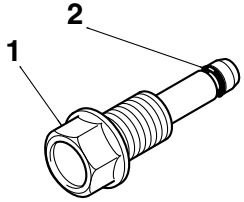


1. Engine oil filler cap



1. Engine oil drain bolt
2. O-ring
3. Gasket

5. Check the O-ring for damage and replace it if necessary.

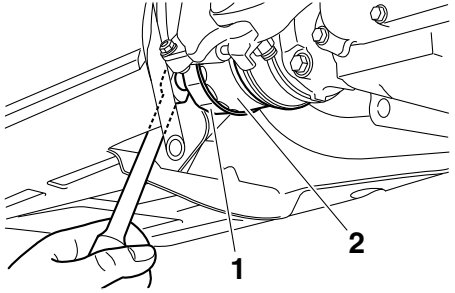


1. Engine oil drain bolt
2. O-ring

TIP

Skip steps 6–8 if the oil filter cartridge is not being replaced.

6. Remove the oil filter cartridge with an oil filter wrench.

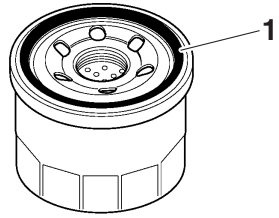


1. Oil filter wrench
2. Oil filter cartridge

TIP

An oil filter wrench is available at a Yamaha dealer.

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

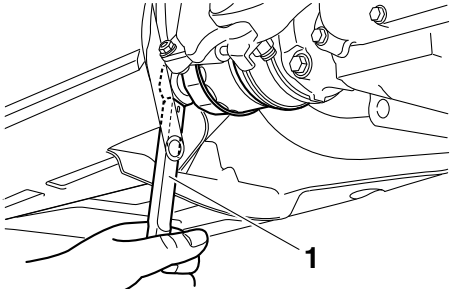


1. O-ring

TIP

Make sure that the O-ring is properly seated.

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



1. Torque wrench

Tightening torque:
Oil filter cartridge:
17 Nm (1.7 m·kgf, 12 ft·lbf)

9. Install the engine oil drain bolt and its new gasket, and then tighten the bolt to the specified torque.

Tightening torque:
Engine oil drain bolt:
43 Nm (4.3 m·kgf, 31 ft·lbf)

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

Recommended engine oil:
See page 8-1.
Oil quantity:
Without oil filter cartridge replacement:
2.70 L (2.85 US qt, 2.38 Imp.qt)
With oil filter cartridge replacement:
2.90 L (3.07 US qt, 2.55 Imp.qt)

TIP

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

ECA11620

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.**

11. 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.
12. Turn the engine off, and then check the oil level and correct it if necessary.
13. Reset the oil change indicator. (See page 3-8.)

TIP

If the engine oil is changed before the oil change indicator comes on (i.e. before the periodic oil change interval has

been reached), the indicator must be reset after the oil change for the next periodic oil change to be indicated at the correct time.

EAU20070

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.

EAU52020

To check the coolant level

1. Place the vehicle on the centerstand.

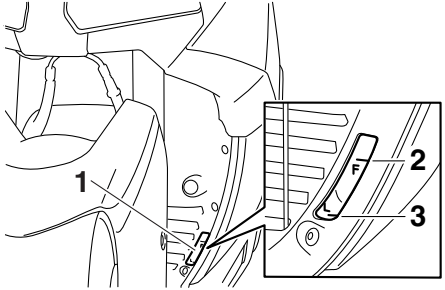
TIP

- 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 a false reading.

2. Check the coolant level through the check window.

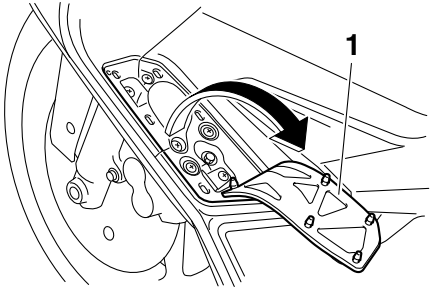
TIP

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



1. Coolant level check window
2. Maximum level mark
3. Minimum level mark

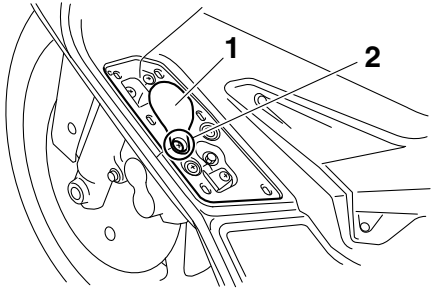
3. If the coolant is at or below the minimum level mark, remove the left floorboard mat by pulling it up.



1. Floorboard mat

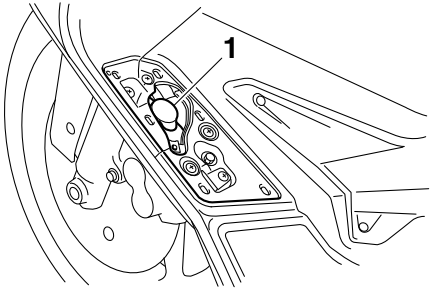
4. Remove the coolant reservoir cov-

er by removing the screw.



1. Coolant reservoir cover
2. Screw

5. Open the coolant reservoir cap, add coolant to the maximum level mark, and then close the reservoir cap. **WARNING! Remove only the coolant reservoir cap. Never attempt to remove the radiator cap when the engine is hot.**[EWA15161] ***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 antifreeze content of the coolant as soon as possible, otherwise the effectiveness of the coolant will be reduced.**[ECA10472]



1. Coolant reservoir cap

Coolant reservoir capacity (up to the maximum level mark):
0.27 L (0.29 US qt, 0.24 Imp.qt)

6. Install the coolant reservoir cover by installing the screw.
7. Place the left floorboard mat in the original position and push it downward to secure it.

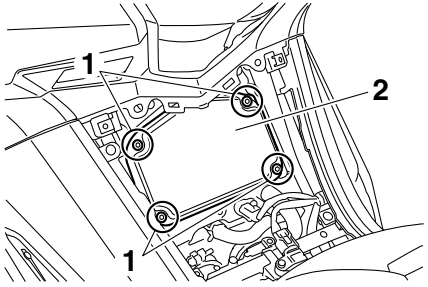
EAU52030

Replacing the air filter element

The air filter element should be replaced at the intervals specified in the periodic maintenance and lubrication chart. Replace the air filter element more frequently if you are riding in unusually wet or dusty areas.

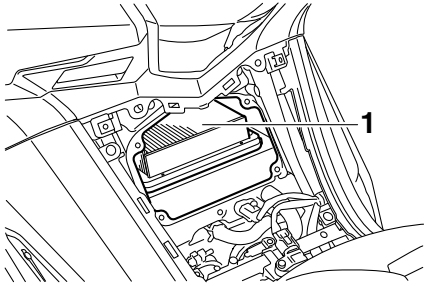
To replace the air filter element

1. Remove panel C. (See page 6-8.)
2. Remove the air filter case cover by removing the screws.



1. Screw
2. Air filter case cover

3. Pull the air filter element out.



1. Air filter element

4. Insert a new air filter element into the air filter case. ***NOTICE:*** **Make sure that the air filter element is properly seated in the air filter case. The engine should never be operated without the air filter element installed, otherwise the piston(s) and/or cylinder(s) may become excessively worn.**[ECA10481]
5. Install the air filter case cover by installing the screws.
6. Install the panel.

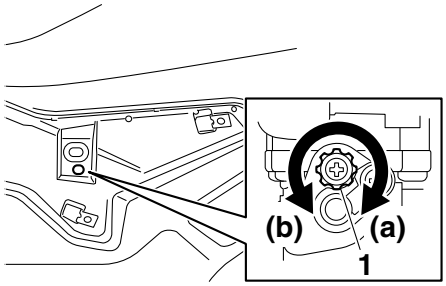
EAU33482

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.

1. Remove panel D. (See page 6-8.)
2. 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:
1100–1300 r/min

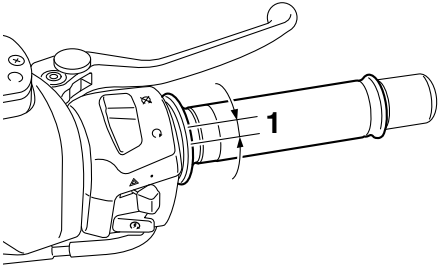
TIP

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

3. Install the panel.

EAU21384

Checking the throttle grip free play



1. Throttle grip free play

The throttle grip free play should measure 3.0–5.0 mm (0.12–0.20 in) at the inner edge of the throttle grip. Periodically check the throttle grip free play and, if necessary, have a Yamaha dealer adjust it.

EAU21401

Valve clearance

The valve clearance changes with use, resulting in improper air-fuel mixture and/or engine noise. To prevent this from occurring, the valve clearance must be adjusted by a Yamaha dealer at the intervals specified in the periodic maintenance and lubrication chart.

EAU51971

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.

EWA10503

⚠ WARNING

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

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

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

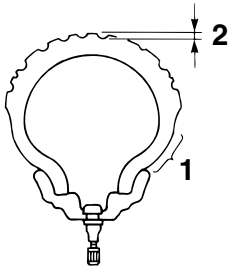
Tire air pressure (measured on cold tires):
0–90 kg (0–198 lb):
Front:
225 kPa (2.25 kgf/cm^2, 33 psi)
Rear:
250 kPa (2.50 kgf/cm^2, 36 psi)
XP500 90–198 kg (198–437 lb)
XP500A 90–194 kg (198–428 lb):
Front:
225 kPa (2.25 kgf/cm^2, 33 psi)
Rear:
280 kPa (2.80 kgf/cm^2, 41 psi)
Maximum load*:
XP500 198 kg (437 lb)
XP500A 194 kg (428 lb)
* Total weight of rider, passenger, cargo and accessories

EWA10511

⚠ WARNING

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

Tire inspection



1. Tire sidewall
2. Tire tread depth

The tires must be checked before each ride. If the center tread depth reaches the specified limit, if the tire has a nail or glass fragments in it, or if the sidewall is cracked, have a Yamaha dealer replace the tire immediately.

Minimum tire tread depth (front and rear):
1.6 mm (0.06 in)

TIP

The tire tread depth limits may differ from country to country. Always comply with the local regulations.

EWA10471

⚠ WARNING

- **Have a Yamaha dealer replace excessively worn tires. Besides being illegal, operating the vehicle with excessively worn tires decreases riding stability and can lead to loss of control.**
- **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, tire air valves and cast wheels.
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.

EWA16100

⚠ 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.**
- **Always make sure that the valve caps are securely installed to prevent air pressure leakage.**
- **Use only the tire valves and valve cores listed below to avoid tire deflation during a ride.**

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

Front tire:
Size:
120/70R15 M/C 56H
Manufacturer/model:
DUNLOP/GPR-100F
BRIDGESTONE/BT011F
Tire air valve:
PVR59A
Valve core:
#9100 (original)

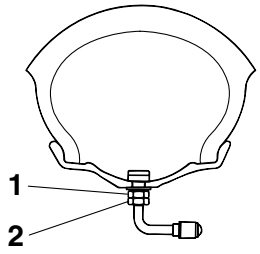
Rear tire:
Size:
160/60R15 M/C 67H
Manufacturer/model:
DUNLOP/GPR-100L
BRIDGESTONE/BT012R
Tire air valve:
TR412
Valve core:
#9100 (original)

EAU51920

Cast wheels

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, warpage 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.
- After repairing or replacing the front tire, tighten the valve stem nut and locknut to the specified torques.



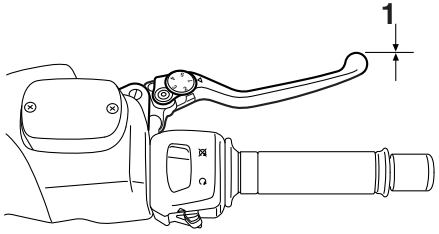
1. Valve stem nut
2. Valve stem locknut

Tightening torques:
Valve stem nut:
2.0 Nm (0.20 m·kgf, 1.4 ft·lbf)
Valve stem locknut:
3.0 Nm (0.30 m·kgf, 2.2 ft·lbf)

EAU50860

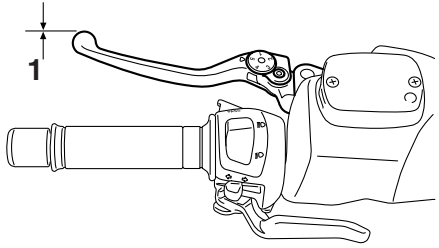
Checking the front and rear brake lever free play

Front



1. No brake lever free play

Rear



1. No brake lever free play

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

EWA14211

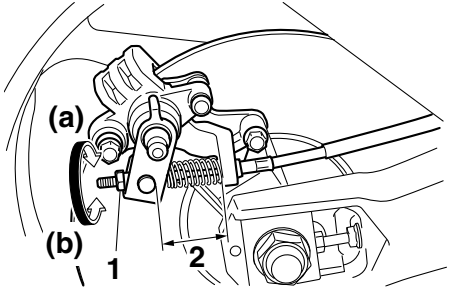
⚠ WARNING

A soft or spongy feeling in the brake lever can indicate the presence of air in the hydraulic system. If there is air in the hydraulic system, have a Yamaha dealer bleed the system before operating the vehicle. Air in the hydraulic system will diminish the braking performance, which may result in loss of control and an accident.

EAU53031

Adjusting the rear brake lock cable

Rear brake lock cable adjustment may be required if the rear brake lock lever does not hold properly. When the rear brake lock lever is not in use, the rear brake lock cable length should measure 43–45 mm (1.69–1.77 in) at the rear brake caliper.



1. Adjusting nut
2. Rear brake lock cable length

Periodically check the rear brake lock cable length and, if necessary, adjust it as follows.

To increase the rear brake lock cable length, turn the adjusting nut at the rear brake caliper in direction (a). To decrease the rear brake lock cable length, turn the adjusting nut in direction (b). **WARNING! If proper adjustment cannot be obtained as described, have a Yamaha dealer make this adjustment.**[EWA16150]

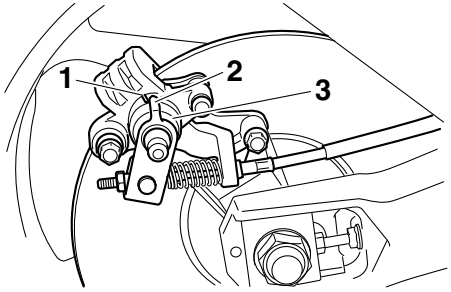
Check that the rear brake lock is released, and then make sure that the rear wheel could rotate smoothly.

EAU52291

Checking the rear brake lock

The rear brake lock must be checked at the intervals specified in the periodic maintenance and lubrication chart.

1. Adjust the rear brake lock cable.
2. Apply the rear brake lock, and then pushing the vehicle for properly locks the rear brake lock.
3. The rear brake lock caliper is provided with a wear indicator, which allows you to check the rear brake lock pads. To check the rear brake lock pads, check the position of the indicator while applying the rear brake lock lever. If the indicator has passed the wear indicator groove, have a Yamaha dealer check the rear brake lock.
4. Make sure that there is no tears and cracks on the rubber boot.

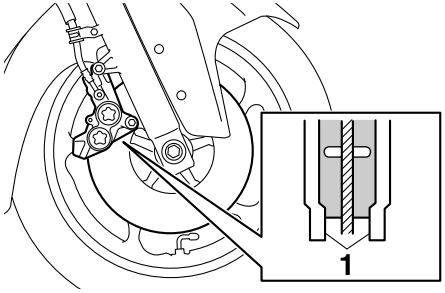


1. Wear indicator groove
2. Wear indicator
3. Rubber boot

EAU22311

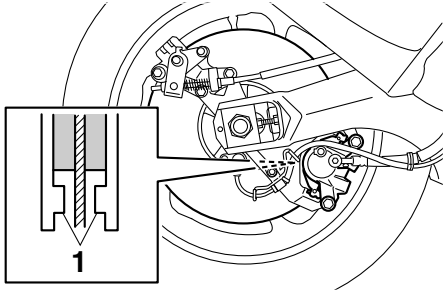
Checking the front and rear brake pads

Front brake



1. Brake pad wear indicator

Rear brake



1. Brake pad wear indicator

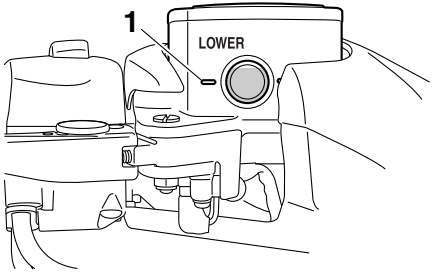
The front and rear brake pads must be checked for wear at the intervals specified in the periodic maintenance and lubrication chart. Each brake pad is provided with a wear indicator, which allows you to check the brake pad wear without having to disassemble the brake. To check the brake pad wear, check the position of the wear indicator while applying the brake. If a brake pad has worn to the point that the wear indicator almost touches the brake disc, have a Yamaha dealer replace the brake pads as a set.

EAU22581

Checking the brake fluid level

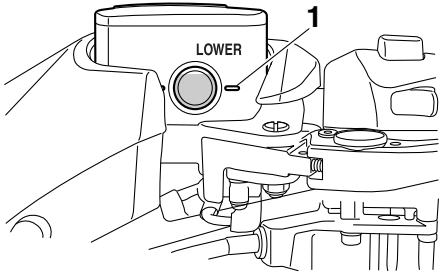
Before riding, check that the brake fluid is above the minimum level mark. Check the brake fluid level with the top of the reservoir level. Replenish the brake fluid if necessary.

Front brake



1. Minimum level mark

Rear brake



1. Minimum level mark

Specified brake fluid:
DOT 4

EWA15990

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

ECA17640

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

EAU22731

Changing the brake fluid

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

- Oil seals: Replace every two years.
- Brake hoses: Replace every four years.

EAU51990

Drive belt slack

The drive belt slack should be checked and adjusted by a Yamaha dealer at the intervals specified in the periodic maintenance and lubrication chart.

EAU23095

Checking and lubricating the cables

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.**[EWA10711]

Recommended lubricant:
Yamaha Chain and Cable Lube or engine oil

EAU23114

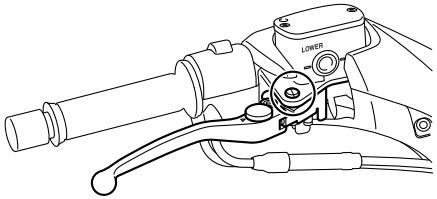
Checking and lubricating the throttle grip and cable

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.

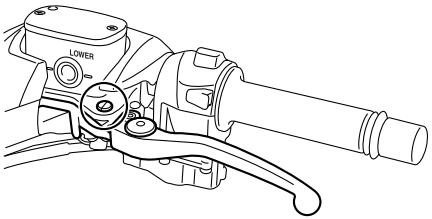
EAU23172

Lubricating the front and rear brake levers

Front brake lever



Rear brake lever



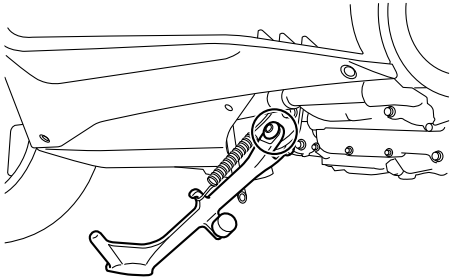
The pivoting points of the front and rear brake levers must be lubricated at the intervals specified in the periodic maintenance and lubrication chart.

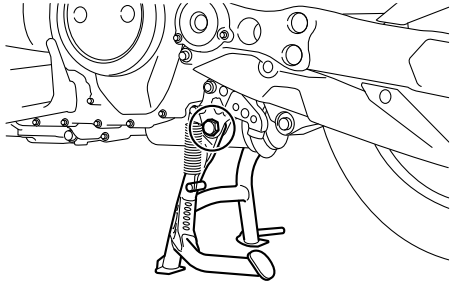
Recommended lubricant:
Silicone grease

6

EAU23213

Checking and lubricating the centerstand and sidestand





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.

EWA10741

⚠ 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

EAU23272

Checking the front fork

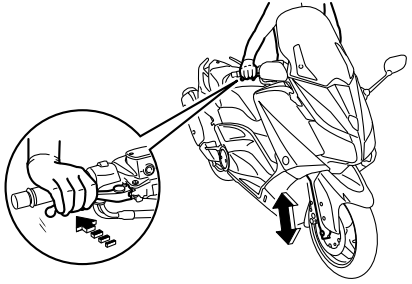
The condition and operation of the front fork must be checked as follows at the intervals specified in the periodic maintenance and lubrication chart.

To check the condition

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

To check the operation

1. Place the vehicle on a level surface and hold it in an upright position. **WARNING! To avoid injury, securely support the vehicle so there is no danger of it falling over.**[EWA10751]
2. While applying the front brake, push down hard on the handlebars several times to check if the front fork compresses and rebounds smoothly.



ECA10590

NOTICE

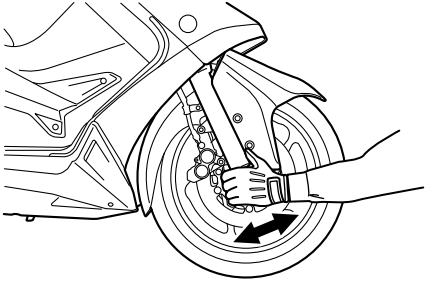
If any damage is found or the front fork does not operate smoothly, have a Yamaha dealer check or repair it.

EAU45511

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 centerstand. **WARNING! To avoid injury, securely support the vehicle so there is no danger of it falling over.**[EWA10751]
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.



EAU23291

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.

EAU52042

Battery

The battery is located under front storage compartment A. (See page 3-22.)
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.

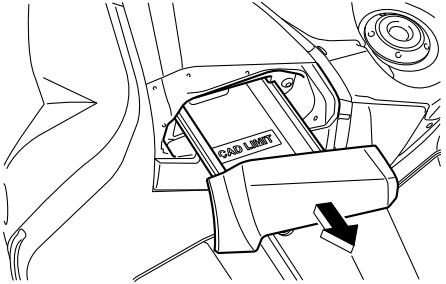
EWA10760

⚠ WARNING

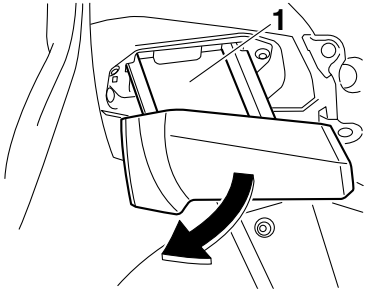
- **Electrolyte is poisonous and dangerous since it contains sulfuric acid, which causes severe burns. Avoid any contact with skin, eyes or clothing and always shield your eyes when working near batteries. In case of contact, administer the following FIRST AID.**
  - **EXTERNAL: Flush with plenty of water.**
  - **INTERNAL: Drink large quantities of water or milk and immediately call a physician.**
  - **EYES: Flush with water for 15 minutes and seek prompt medical attention.**
- **Batteries produce explosive hydrogen gas. Therefore, keep sparks, flames, cigarettes, etc., away from the battery and provide sufficient ventilation when charging it in an enclosed space.**
- **KEEP THIS AND ALL BATTERIES OUT OF THE REACH OF CHILDREN.**

To access the battery

1. Remove panel B. (See page 6-8.)
2. Open the front storage compartment A. (See page 3-22.)

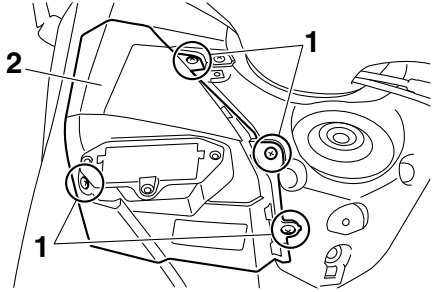


3. Pull the storage compartment outward, then remove it.

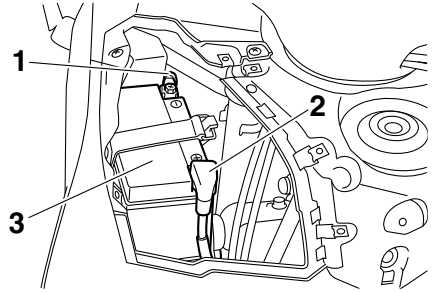


1. Storage compartment

4. Remove the front storage compartment A by removing the screws.



1. Screw
2. Front storage compartment A



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

To charge the battery

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

ECA16521

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 the key is turned to "OFF", then disconnect the negative lead before disconnecting the positive lead.**[ECA16302]
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 the key is turned to "OFF", then connect the positive lead before connecting the negative lead.**[ECA16840]
4. After installation, make sure that the battery leads are properly connected to the battery terminals.

ECA16530

NOTICE

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

6

EAU54020

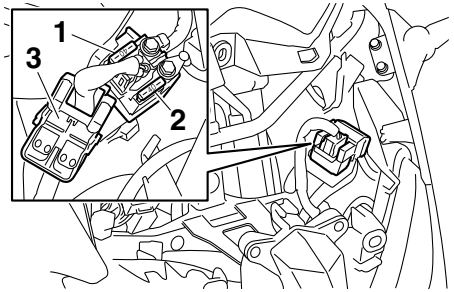
Replacing the fuses

The main fuse box and the fuse box, which contains the fuses for the individual circuits, are located under panel A. (See page 6-8.)

If a fuse is blown, replace it as follows.

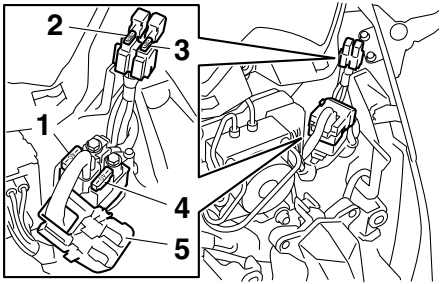
1. Turn the key to “OFF” and turn off the electrical circuit in question.
2. Remove the blown fuse, and then install a new fuse of the specified amperage. **WARNING! Do not use a fuse of a higher amperage rating than recommended to avoid causing extensive damage to the electrical system and possibly a fire.**[EWA15131]

For XP500



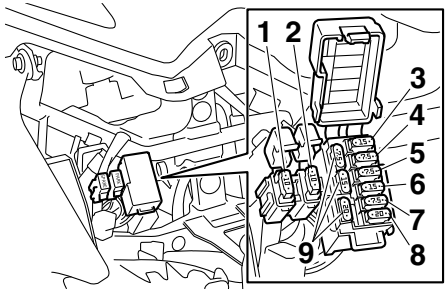
1. Main fuse
2. Spare main fuse
3. Main fuse box cover

For XP500A



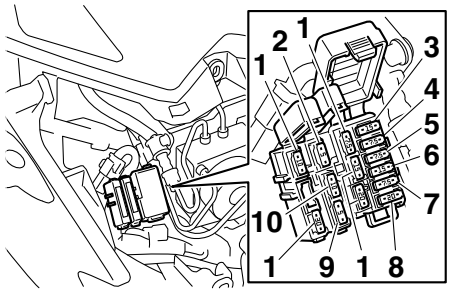
1. Main fuse
2. ABS motor fuse
3. ABS solenoid fuse
4. Spare main fuse
5. Main fuse box cover

For XP500



1. Spare fuse
2. Parking lighting fuse
3. Signaling system fuse
4. Ignition fuse
5. Backup fuse
6. Radiator fan fuse
7. Fuel injection system fuse
8. Headlight fuse
9. Spare fuse

For XP500A



1. Spare fuse
2. ABS control unit fuse
3. Signaling system fuse
4. Ignition fuse
5. Backup fuse
6. Radiator fan fuse
7. Fuel injection system fuse
8. Headlight fuse
9. Spare fuse
10. Parking lighting fuse

Specified fuses:
Main fuse:
40.0 A
Headlight fuse:
20.0 A
Signaling system fuse:
15.0 A
Ignition fuse:
7.5 A
Radiator fan fuse:
15.0 A
Fuel injection system fuse:
7.5 A
Parking lighting fuse:
10.0 A
ABS control unit fuse:
XP500A 5.0 A
ABS motor fuse:
XP500A 30.0 A
ABS solenoid fuse:
XP500A 20.0 A
Backup fuse:
7.5 A

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

EAU52231

Replacing the headlight bulb

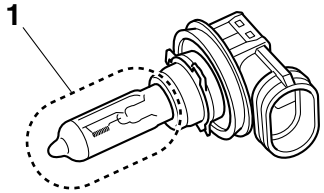
This model is equipped with a halogen bulb headlights. If the headlight bulb burns out, replace it as follows.

ECA10650

NOTICE

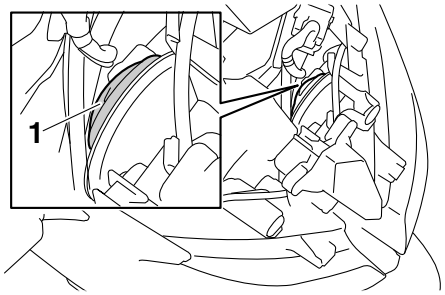
Take care not to damage the following parts:

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



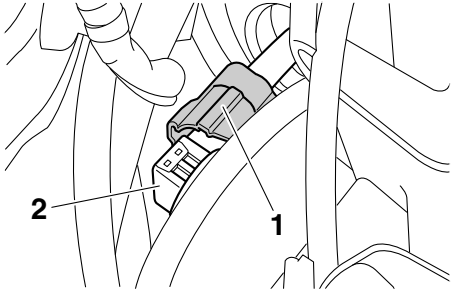
1. Do not touch the glass part of the bulb.

1. Remove panel A. (See page 6-8.)
2. Remove the headlight bulb cover.



1. Headlight bulb cover

3. Disconnect the headlight coupler, and then remove the burnt-out bulb by turning it counterclockwise.



1. Headlight coupler
2. Headlight bulb

4. Install a new bulb by turning it clockwise.
5. Connect the headlight coupler.
6. Install the headlight bulb cover.
7. Install the panel.
8. Have a Yamaha dealer adjust the headlight beam if necessary.

EAU24181

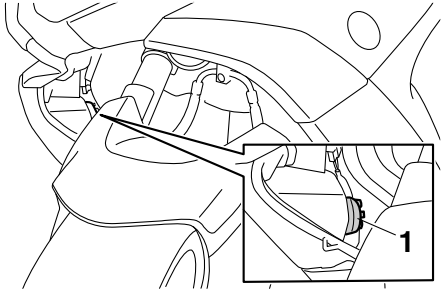
Tail/brake light

This model is equipped with an LED-type tail/brake light.
If the tail/brake light does not come on, have a Yamaha dealer check it.

EAU52320

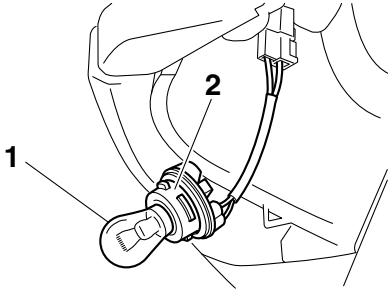
Replacing a front turn signal light bulb

1. Place the scooter on the centerstand.
2. Remove the socket (together with the bulb) by turning it counterclockwise.



1. Turn signal light bulb socket

3. Remove the burnt-out bulb by pushing it in and turning it counterclockwise.



1. Turn signal light bulb
2. Turn signal light bulb socket

4. Insert a new bulb into the socket, push it in, and then turn it clockwise until it stops.
5. Install the socket (together with the bulb) by turning it clockwise.

EAUT1330

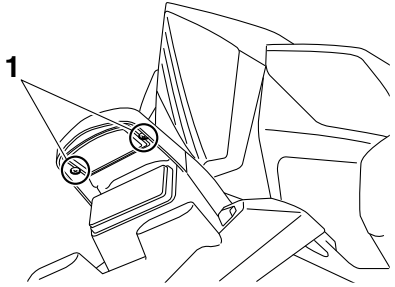
Rear turn signal light bulb

If a rear turn signal light does not come on, have a Yamaha dealer check the electrical circuit or replace the bulb.

EAU24313

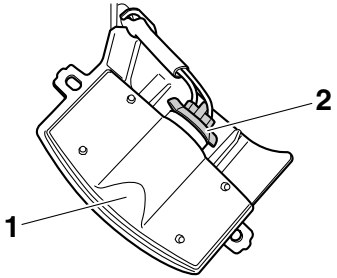
Replacing the license plate light bulb

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



1. Screw

2. Remove the license plate light bulb socket (together with the bulb) by pulling it out.



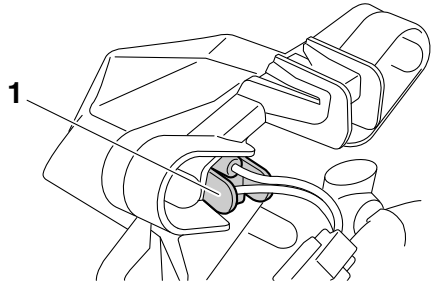
1. License plate light unit
2. License plate light bulb socket

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 screws.

EAU52050

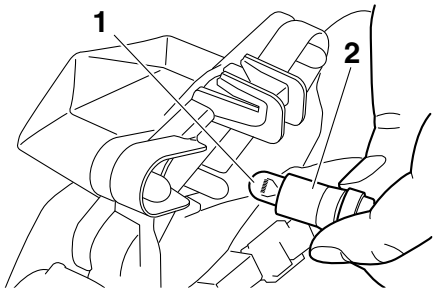
Replacing an auxiliary light bulb

1. Remove panel A. (See page 6-8.)
2. Remove the auxiliary light socket (together with the bulb) by pulling it out.



1. Auxiliary light bulb socket

3. Remove the burnt-out bulb by pulling it out.



1. Auxiliary light bulb
2. Auxiliary light bulb socket

4. Insert a new bulb into the socket.
5. Install the auxiliary light socket (together with the bulb) by pushing it in.
6. Install the panel.

EAU25881

Troubleshooting

Although Yamaha scooters 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 scooter require any repair, take it to a Yamaha dealer, whose skilled technicians have the necessary tools, experience, and know-how to service the scooter 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.

EWA15141

⚠ WARNING

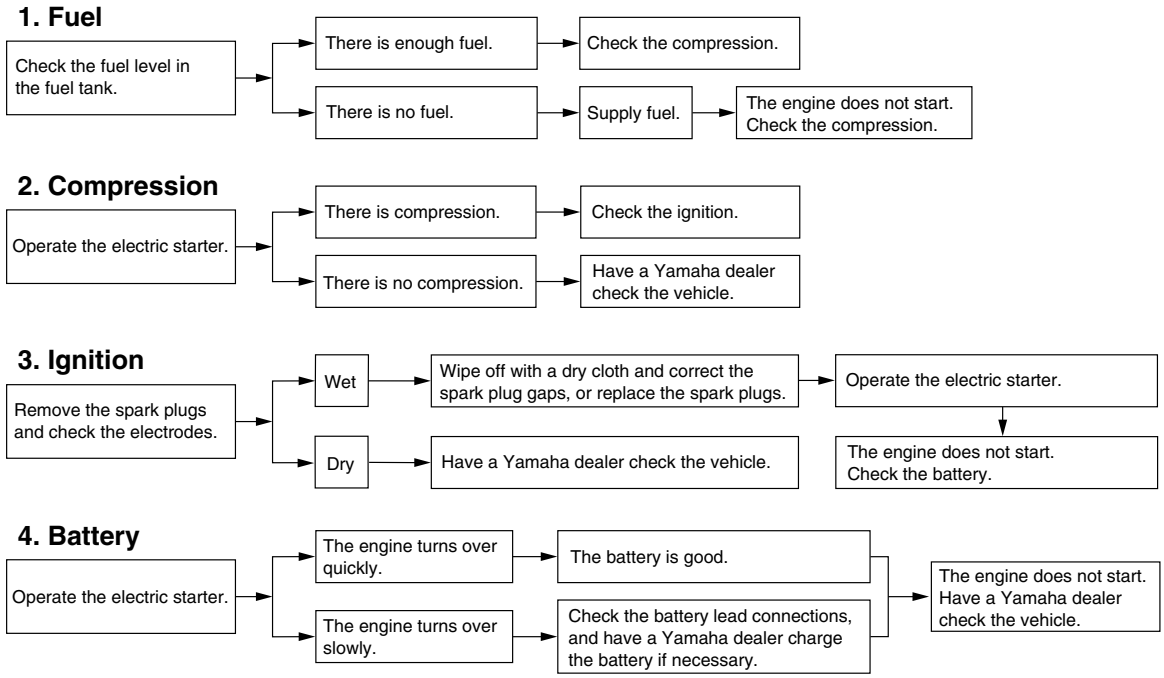
When checking the fuel system, do not smoke, and make sure there are no open flames or sparks in the area, including pilot lights from water

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

EAU42503

Troubleshooting charts

Starting problems or poor engine performance

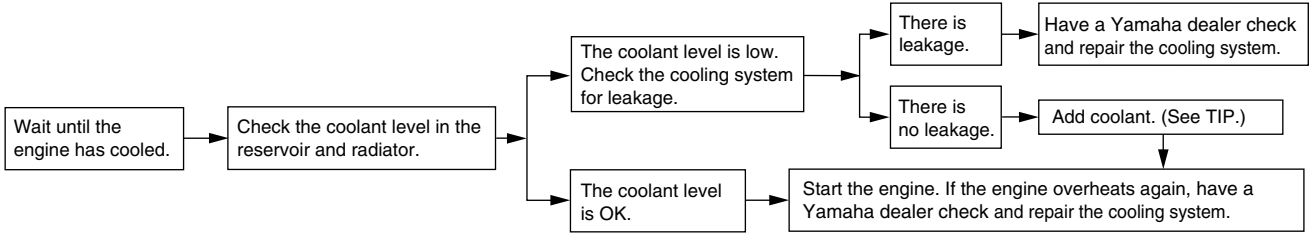


Engine overheating

EWAT1040

⚠ 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.

EAU37833

Matte color caution

ECA15192

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.

EAU26104

Care

While the open design of a scooter reveals the attractiveness of the technology, it also makes it more vulnerable. Rust and corrosion can develop even if high-quality components are used. A rusty exhaust pipe may go unnoticed on a car, however, it detracts from the overall appearance of a scooter. Frequent and proper care does not only comply with the terms of the warranty, but it will also keep your scooter looking good, extend its life and optimize its performance.

Before cleaning

1. Cover the muffler outlet with a plastic bag after the engine has cooled down.
2. Make sure that all caps and covers as well as all electrical couplers and connectors, including the spark plug cap, are tightly installed.
3. Remove extremely stubborn dirt, like oil burnt onto the crankcase, with a degreasing agent and a brush, but never apply such products onto seals, gaskets and wheel axles. Always rinse the dirt and degreaser off with water.

Cleaning

ECA10783

NOTICE

- **Avoid using strong acidic wheel cleaners, especially on spoked wheels. If such products are used on hard-to-remove dirt, do not leave the cleaner on the affected area any longer than instructed. Also, thoroughly rinse the area off with water, immediately dry it, and then apply a corrosion protection spray.**
- **Improper cleaning can damage plastic parts (such as cowlings, panels, windshields, headlight lenses, meter lenses, etc.) and the mufflers. Use only a soft, clean cloth or sponge with water to clean plastic. However, if the plastic parts cannot be thoroughly cleaned with water, diluted mild detergent with water may be used. Be sure to rinse off any detergent residue using**

plenty of water, as it is harmful to plastic parts.

- **Do not use any harsh chemical products on plastic parts. Be sure to avoid using cloths or sponges which have been in contact with strong or abrasive cleaning products, solvent or thinner, fuel (gasoline), rust removers or inhibitors, brake fluid, antifreeze or electrolyte.**
- **Do not use high-pressure washers or steam-jet cleaners since they cause water seepage and deterioration in the following areas: seals (of wheel and swingarm bearings, fork and brakes), electric components (couplers, connectors, instruments, switches and lights), breather hoses and vents.**
- **For scooters equipped with a windshield: Do not use strong cleaners or hard sponges as they will cause dulling or scratching. Some cleaning compounds for plastic may leave scratches on the windshield. Test the product on a small hidden part of the windshield to make sure that it does not leave any marks. If the windshield is scratched, use a quality plastic polishing compound after washing.**

After normal use

Remove dirt with warm water, a mild detergent, and a soft, clean sponge, and then rinse thoroughly with clean water. Use a toothbrush or bottlebrush for hard-to-reach areas. Stubborn dirt and insects will come off more easily if the area is covered with a wet cloth for a few minutes before cleaning.

After riding in the rain, near the sea or on salt-sprayed roads

Since sea salt or salt sprayed on roads during winter are extremely corrosive in combination with water, carry out the following steps after each ride in the rain, near the sea or on salt-sprayed roads.

TIP

Salt sprayed on roads in the winter may remain well into spring.

1. Clean the scooter with cold water and a mild detergent after the engine has cooled down. ***NOTICE:*** **Do not use warm water since it increases the corrosive action of the salt.**[ECA10791]
2. Apply a corrosion protection spray on all metal, including chrome- and nickel-plated, surfaces to prevent corrosion.

After cleaning

1. Dry the scooter with a chamois or an absorbing cloth.
2. Use a chrome polish to shine chrome, aluminum and stainless-steel parts, including the exhaust system. (Even the thermally induced discoloring of stainless-steel exhaust systems can be removed through polishing.)
3. To prevent corrosion, it is recommended to apply a corrosion protection spray on all metal, including chrome- and nickel-plated, surfaces.
4. Use spray oil as a universal clean-

er to remove any remaining dirt.
5. Touch up minor paint damage caused by stones, etc.
6. Wax all painted surfaces.
7. Let the scooter dry completely before storing or covering it.

EWA10942

⚠ WARNING

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

- **Make sure that there is no oil or wax on the brakes or tires. If necessary, clean the brake discs and brake linings with a regular brake disc cleaner or acetone, and wash the tires with warm water and a mild detergent.**
- **Before operating the scooter test its braking performance and cornering behavior.**

ECA10800

NOTICE

- **Apply spray oil and wax sparingly and make sure to wipe off any excess.**
- **Never apply oil or wax to any rubber and plastic parts, but treat them with a suitable care product.**
- **Avoid using abrasive polishing compounds as they will wear away the paint.**

TIP

- Consult a Yamaha dealer for advice on what products to use.
- Washing, rainy weather or humid climates can cause the headlight lens to fog. Turning the headlight on for a short period of time will help remove the moisture from the lens.

EAU36553

Storage

Short-term

Always store your scooter in a cool, dry place and, if necessary, protect it against dust with a porous cover. Be sure the engine and the exhaust system are cool before covering the scooter.

ECA10820

NOTICE

- **Storing the scooter 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

Before storing your scooter for several months:

1. Follow all the instructions in the “Care” section of this chapter.
2. Fill up the fuel tank and add fuel

stabilizer (if available) to prevent the fuel tank from rusting and the fuel from deteriorating.

3. Perform the following steps to protect the cylinders, piston rings, etc. from corrosion.
   a. Remove the spark plug caps and the spark plugs.
   b. Pour a teaspoonful of engine oil into the spark plug bores.
   c. Install the spark plug caps onto the spark plugs, and then place the spark plugs 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 walls with oil.)
   e. Remove the spark plug caps from the spark plugs, and then install the spark plugs and the spark plug caps. **WARNING! To prevent damage or injury from sparking, make sure to ground the spark plug electrodes while turning the engine over.** [EWA10951]
4. Lubricate all control cables and the pivoting points of all levers and pedals as well as of the sidestand/centerstand.
5. Check and, if necessary, correct the tire air pressure, and then lift the scooter so that both of its wheels are off the ground. Alternatively, turn the wheels a little every month in order to prevent the tires from becoming degraded in one spot.
6. Cover the muffler outlet with a plastic bag to prevent moisture from entering it.
7. Remove the battery and fully charge it. Store it in a cool, dry place and charge it once a month. Do not store the battery in an excessively cold or warm place [less than 0 °C (30 °F) or more than 30 °C (90 °F)]. For more information on storing the battery, see page 6-28.

TIP

Make any necessary repairs before storing the scooter.

Dimensions:
Overall length:
2200 mm (86.6 in)
Overall width:
775 mm (30.5 in)
Overall height:
1420/1475 mm (55.9/58.1 in)
Seat height:
800 mm (31.5 in)
Wheelbase:
1580 mm (62.2 in)
Ground clearance:
125 mm (4.92 in)
Minimum turning radius:
2800 mm (110.2 in)

Weight:
Curb weight:
XP500 217 kg (478 lb)
XP500A 221 kg (487 lb)

Engine:
Engine type:
Liquid cooled 4-stroke, DOHC
Cylinder arrangement:
Inline 2-cylinder
Displacement:
530 cm^3
Bore × stroke:
68.0 × 73.0 mm (2.68 × 2.87 in)
Compression ratio:
10.90 : 1
Starting system:
Electric starter
Lubrication system:
Dry sump

Engine oil:
Recommended brand:
YAMALUBE
Type:
SAE 10W-30 or 10W-40
Recommended engine oil grade:
API service SG type or higher, JASO standard MA
Engine oil quantity:
Without oil filter cartridge replacement:
2.70 L (2.85 US qt, 2.38 Imp.qt)
With oil filter cartridge replacement:
2.90 L (3.07 US qt, 2.55 Imp.qt)

Cooling system:
Coolant reservoir capacity (up to the maximum level mark):
0.27 L (0.29 US qt, 0.24 Imp.qt)
Radiator capacity (including all routes):
1.50 L (1.59 US qt, 1.32 Imp.qt)

Air filter:
Air filter element:
Oil-coated paper element

Fuel:
Recommended fuel:
Regular unleaded gasoline (Gasohol (E10) acceptable)
Fuel tank capacity:
15.0 L (3.96 US gal, 3.30 Imp.gal)
Fuel reserve amount:
3.0 L (0.79 US gal, 0.66 Imp.gal)

Fuel injection:
Throttle body:
ID mark:
59C1 00

Spark plug(s):
Manufacturer/model:
NGK/CR7E
Spark plug gap:
0.7–0.8 mm (0.028–0.031 in)

Clutch:
Clutch type:
Wet, multiple-disc automatic

Transmission:
Primary reduction ratio:
1.000
Final drive:
Belt
Secondary reduction ratio:
6.034 (52/32 x 36/22 x 59/26)
Transmission type:
V-belt automatic

Chassis:
Frame type:
Diamond
Caster angle:
25.00 °
Trail:
92 mm (3.6 in)

Front tire:
Type:
Tubeless
Size:
120/70R15 M/C 56H
Manufacturer/model:
DUNLOP/GPR-100F
Manufacturer/model:
BRIDGESTONE/BT011F

SPECIFICATIONS

Rear tire:
Type:
Tubeless
Size:
160/60R15 M/C 67H
Manufacturer/model:
DUNLOP/GPR-100L
Manufacturer/model:
BRIDGESTONE/BT012R

Loading:
Maximum load:
XP500 198 kg (437 lb)
XP500A 194 kg (428 lb)
* (Total weight of rider, passenger, cargo and accessories)

Tire air pressure (measured on cold tires):
Loading condition:
0–90 kg (0–198 lb)
Front:
225 kPa (2.25 kgf/cm^2, 33 psi)
Rear:
250 kPa (2.50 kgf/cm^2, 36 psi)
Loading condition:
XP500 90–198 kg (198–437 lb)
XP500A 90–194 kg (198–428 lb)
Front:
225 kPa (2.25 kgf/cm^2, 33 psi)
Rear:
280 kPa (2.80 kgf/cm^2, 41 psi)

Front wheel:
Wheel type:
Cast wheel
Rim size:
15M/C x MT3.50

Rear wheel:
Wheel type:
Cast wheel
Rim size:
15M/C x MT5.00

Front brake:
Type:
Dual disc brake
Operation:
Right hand operation
Specified brake fluid:
DOT 4

Rear brake:
Type:
Single disc brake
Operation:
Left hand operation
Specified brake fluid:
DOT 4

Front suspension:
Type:
Telescopic fork
Spring/shock absorber type:
Coil spring/oil damper
Wheel travel:
120.0 mm (4.72 in)

Rear suspension:
Type:
Swingarm
Spring/shock absorber type:
Coil spring/gas-oil damper
Wheel travel:
116.0 mm (4.57 in)

Electrical system:
Ignition system:
TCI
Charging system:
AC magneto

Battery:
Model:
YTZ12S
Voltage, capacity:
12 V, 11.0 Ah

Headlight:
Bulb type:
Halogen bulb

Bulb voltage, wattage × quantity:
Headlight:
12 V, 55.0 W × 2
Tail/brake light:
LED
Front turn signal light:
12 V, 21.0 W × 2
Rear turn signal light:
12 V, 21.0 W × 2
Auxiliary light:
12 V, 5.0 W × 1
License plate light:
12 V, 5.0 W × 1
Meter lighting:
LED
High beam indicator light:
LED
Turn signal indicator light:
LED x 2

Engine trouble warning light:
LED
ABS warning light:
XP500A LED
Immobilizer system indicator light:
LED

Fuses:

Main fuse:
40.0 A
Headlight fuse:
20.0 A
Signaling system fuse:
15.0 A
Ignition fuse:
7.5 A
Parking lighting fuse:
10.0 A
Radiator fan fuse:
15.0 A
Fuel injection system fuse:
7.5 A
ABS control unit fuse:
XP500A 5.0 A
ABS motor fuse:
XP500A 30.0 A
ABS solenoid fuse:
XP500A 20.0 A
Backup fuse:
7.5 A

EAU48612

Identification numbers

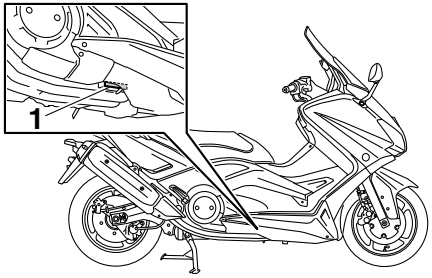
Record the vehicle identification number and model label information in the spaces provided below for assistance when ordering spare parts from a Yamaha dealer or for reference in case the vehicle is stolen.

VEHICLE IDENTIFICATION NUMBER:

MODEL LABEL INFORMATION:

EAU26410

Vehicle identification number



1. Vehicle identification number

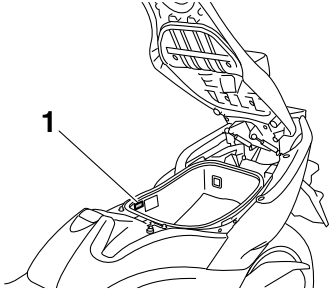
The vehicle identification number is stamped into the frame.

TIP

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

EAU26500

Model label



1. Model label

The model label is affixed to the inside of the rear storage compartment. (See page 3-22.) Record the information on this label in the space provided. This information will be needed when ordering spare parts from a Yamaha dealer.

9

INDEX

INDEX

PRINTED ON RECYCLED PAPER

PRINTED IN JAPAN
2012.07-0.4×1
(E)