



⚠ Read this manual carefully before operating this vehicle.

**OWNER'S MANUAL**  
**Grand filano**  
***LTF125-I/LTF125-A***

**B8B-F8199-E0**



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

Welcome to the Yamaha world of motorcycling!

As the owner of the LTF125-I/LTF125-A, you are benefiting from Yamaha's vast experience and newest technology regarding the design and manufacture of high-quality products, which have earned Yamaha a reputation for dependability.

Please take the time to read this manual thoroughly, so as to enjoy all advantages of your LTF125-I/LTF125-A. 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.



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

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# Important manual information

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

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

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

EAU37432

**LTF125-I/LTF125-A  
OWNER'S MANUAL**  
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# Table of contents

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<b>Location of important labels</b> .....	1-1	Keyhole shutter .....	6-4	Tips for reducing fuel consumption .....	8-3
<b>Safety information</b> .....	2-1	Indicator lights and warning lights .....	6-4	Engine break-in.....	8-4
Further safe-riding points .....	2-5	Multi-function meter unit.....	6-6	Parking.....	8-4
Helmets .....	2-6	Handlebar switches .....	6-10	<b>Periodic maintenance and adjustment</b> .....	9-1
<b>Description</b> .....	3-1	Brake lever .....	6-11	Tool kit .....	9-1
Left view .....	3-1	Rear brake lever .....	6-12	Periodic maintenance chart for the emission control system .....	9-2
Right view .....	3-2	ABS (for ABS models).....	6-12	General maintenance and lubrication chart .....	9-3
Controls and instruments .....	3-3	Fuel tank cap .....	6-13	Removing and installing panels.....	9-8
<b>Smart key system (LTF125-A)</b> .....	4-1	Fuel .....	6-14	Checking the spark plug.....	9-9
Smart key system.....	4-1	Catalytic converter .....	6-15	Engine oil and oil strainer .....	9-10
Operating range of the smart key system.....	4-2	Kickstarter (LTF125-l).....	6-16	Final transmission oil .....	9-12
Handling of the smart key and mechanical keys .....	4-3	Seat .....	6-16	Air filter and V-belt case air filter elements.....	9-13
Smart key .....	4-5	Passenger footrest.....	6-17	Adjusting the throttle grip free play .....	9-16
Replacing the smart key battery.....	4-6	Helmet holders.....	6-17	Valve clearance.....	9-16
Main switch .....	4-7	Storage compartments .....	6-18	Tires .....	9-16
<b>Stop and Start System</b> .....	5-1	Luggage hook .....	6-19	Cast wheels .....	9-18
Stop and Start System .....	5-1	Auxiliary DC connector .....	6-19	Checking the front brake lever free play.....	9-18
Stop and Start System operation.....	5-1	Sidestand .....	6-20	Adjusting the rear brake lever free play .....	9-19
<b>Instrument and control functions</b> .....	6-1	Ignition circuit cut-off system .....	6-20	Checking the front brake pads and rear brake shoes .....	9-20
Remote control unit (LTF125-l).....	6-1	Auxiliary DC jack.....	6-22	Checking the brake fluid level .....	9-20
Main switch/steering lock (LTF125-l).....	6-3	<b>For your safety – pre-operation checks</b> .....	7-1	Changing the brake fluid .....	9-21
		<b>Operation and important riding points</b> .....	8-1		
		Starting the engine.....	8-1		
		Starting off .....	8-2		
		Acceleration and deceleration .....	8-3		
		Braking.....	8-3		

# Table of contents

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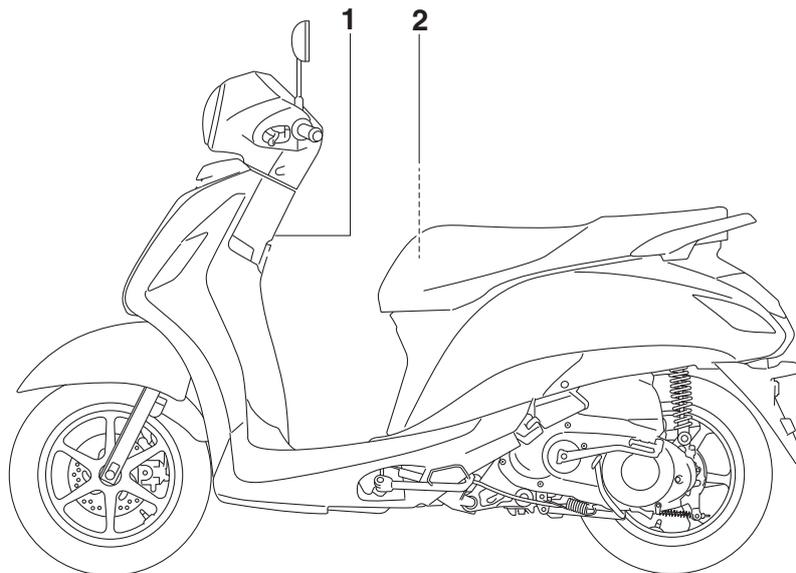
Checking the V-belt.....	9-22	<b>Specifications</b> .....	11-1
Checking and lubricating the cables .....	9-22	<b>Consumer information</b> .....	12-1
Checking and lubricating the throttle grip and cable.....	9-22	Identification numbers .....	12-1
Lubricating the front and rear brake levers .....	9-23	<b>Index</b> .....	13-1
Checking and lubricating the centerstand and sidestand .....	9-23		
Checking the front fork.....	9-24		
Checking the steering .....	9-25		
Checking the wheel bearings .....	9-25		
Battery .....	9-25		
Replacing the fuses.....	9-27		
Headlight .....	9-29		
Auxiliary light .....	9-29		
Tail/brake light.....	9-29		
Front turn signal light.....	9-30		
Replacing a rear turn signal light bulb .....	9-30		
Replacing the license plate light bulb .....	9-31		
Troubleshooting .....	9-32		
Troubleshooting chart .....	9-34		
Emergency mode (LTF125-A) .....	9-35		
<b>Scooter care and storage</b> .....	10-1		
Matte color caution .....	10-1		
Care.....	10-1		
Storage.....	10-3		

# Location of important labels

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1

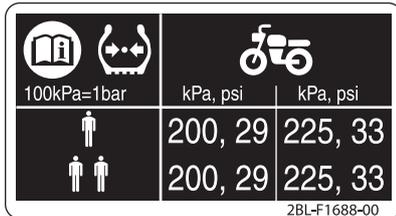
Read and understand all of the labels on your vehicle. They contain important information for safe and proper operation of your vehicle. Never remove any labels from your vehicle. If a label becomes difficult to read or comes off, a replacement label is available from your Yamaha dealer.



1



2



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2

## 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 7-1 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 practice 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.

## Safety information

2

### **Avoid Carbon Monoxide Poisoning**

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

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

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

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

### **Loading**

Adding accessories or cargo to your 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:**  
160 kg (353 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.

## Safety information

2

### 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 9-16 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 lo-

cation 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.

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### 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 or linings 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 brightly 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 2-3.)

## Helmet

EAUU0033

Operating this vehicle without an approved motorcycle helmet increases your chances of a severe head injury or death in the event of an accident. The majority of fatalities from motorcycle or scooter accidents are the result of head injuries. The use of a safety helmet is the single most critical factor in the prevention or reduction of head injuries.

### Always select an approved motorcycle helmet

Pay attention to the following when choosing a motorcycle helmet.

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

### Wearing the helmet correctly

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

### Correct usage



ZAUU0003

### Wrong usage



ZAUU0007

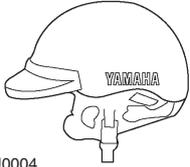
### Types of helmets and their usage

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

## Safety information

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2



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ZAUU0006

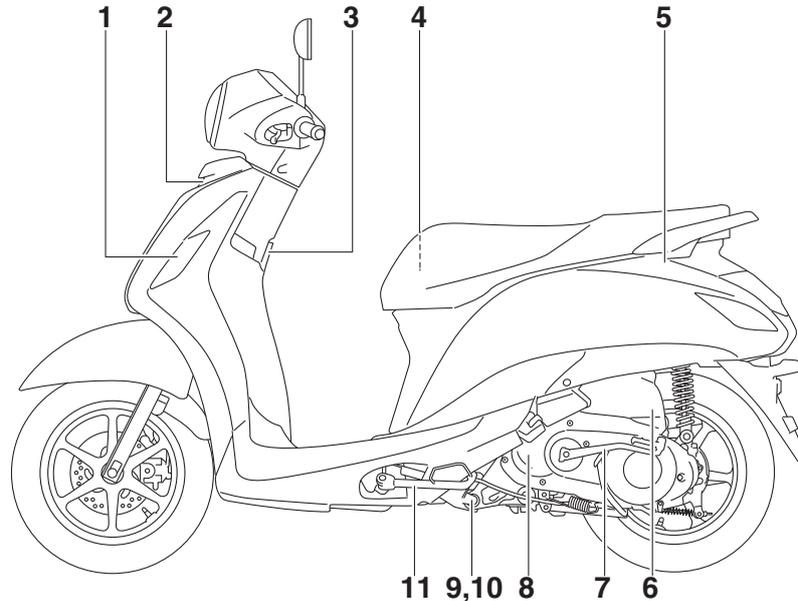
- Full-type: use only for riding at low to mid-range speeds



ZAUU0005

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

## Left view



1. Front turn signal light (page 9-30)

2. Auxiliary light (page 9-29)

3. Luggage hook (page 6-19)

4. Owner's tool kit (page 9-1)

5. Fuse box (page 9-27)

6. Air filter element (page 9-13)

7. Kickstarter (for equipped models) (page 6-16)

8. V-belt case air filter element (page 9-13)

9. Engine oil drain bolt A (page 9-10)

10. Engine oil drain bolt B (page 9-10)

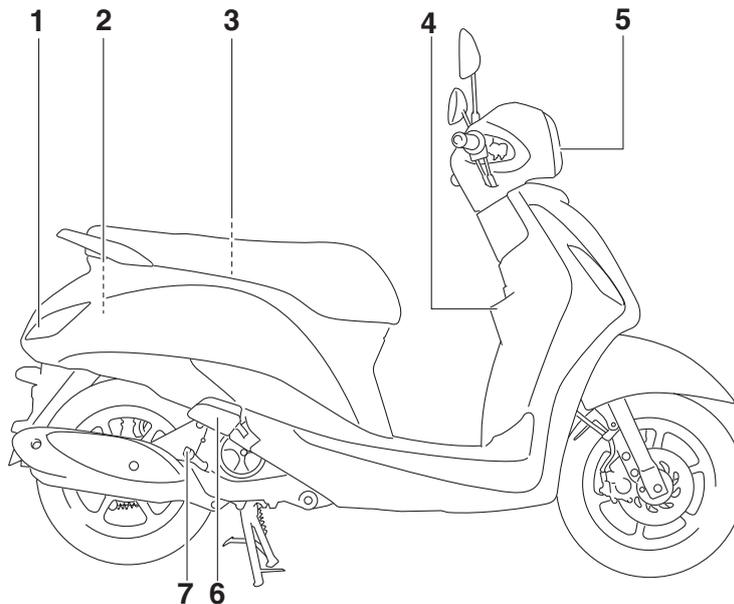
11. Sidestand (page 6-20)

# Description

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## Right view

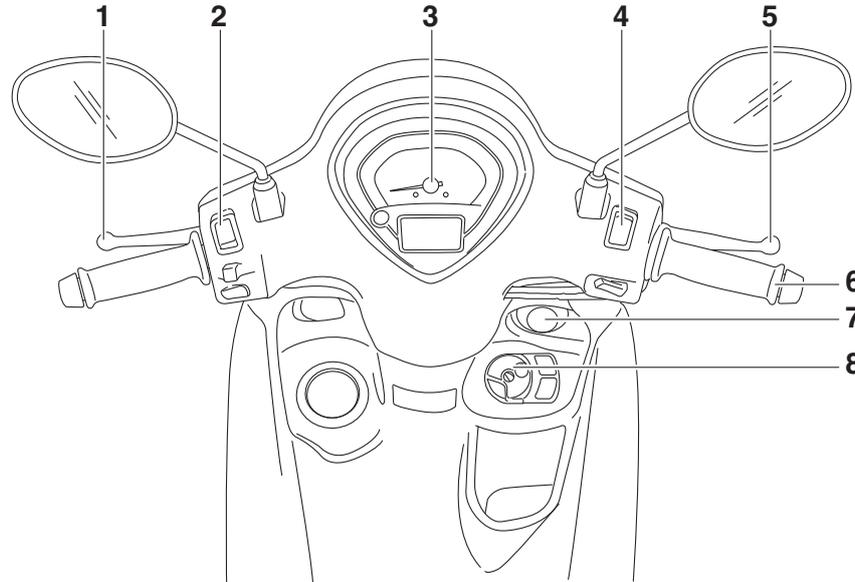
3



1. Tail/brake light (page 9-29)
2. Battery (page 9-25)
3. Rear storage compartment (page 6-18)
4. Front storage compartment (page 6-18)
5. Headlight (page 9-29)
6. Passenger footrest (page 6-17)
7. Engine oil filler cap (page 9-10)

## Controls and instruments

### LTF125-I



1. Rear brake lever (page 6-12)

2. Left handlebar switches (page 6-10)

3. Multi-function meter unit (page 6-6)

4. Right handlebar switches (page 6-10)

5. Front brake lever (page 6-11)

6. Throttle grip (page 9-16)

7. Auxiliary DC jack (page 6-22)

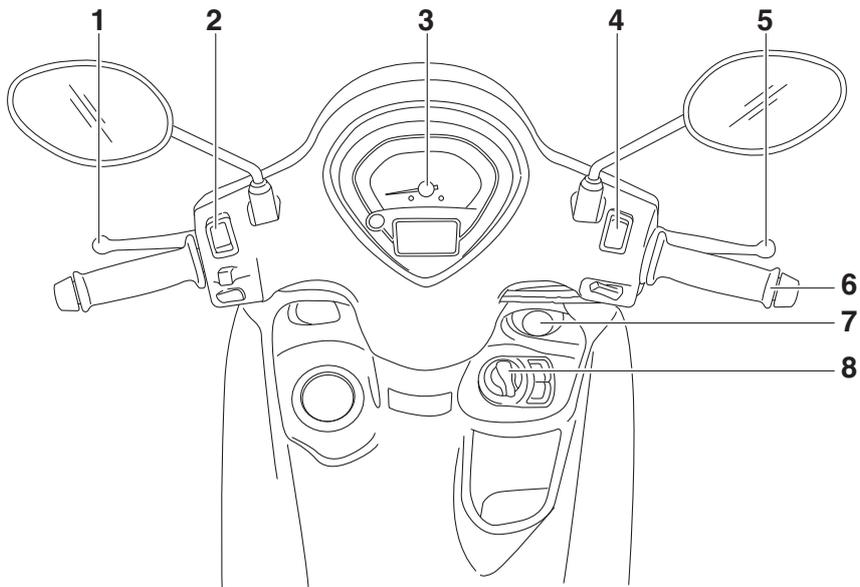
8. Main switch/steering lock (page 6-3)

# Description

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LTF125-A

3

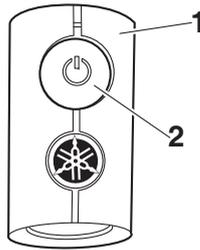


1. Rear brake lever (page 6-12)
2. Left handlebar switches (page 6-10)
3. Multi-function meter unit (page 6-6)
4. Right handlebar switches (page 6-10)
5. Front brake lever (page 6-11)
6. Throttle grip (page 9-16)
7. Auxiliary DC jack (page 6-22)
8. Smart key/steering lock (page 4-1)

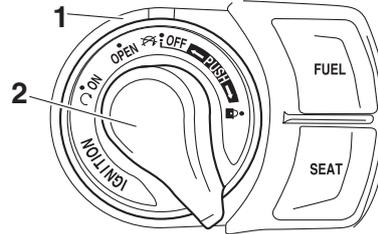
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## Smart key system

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



1. Smart key
2. Smart key button

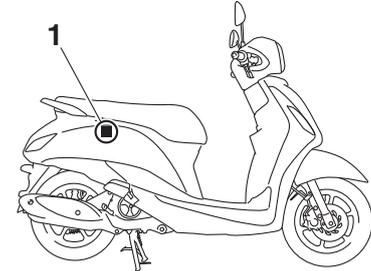


1. Main switch
2. Main switch knob

EWA14704

### WARNING

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



1. Vehicle mounted antenna

ECA24080

### NOTICE

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

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

# Smart key system (LTF125-A)

4

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

In such situations, move the smart key to another location and perform the operation again. If it still does not work, operate the vehicle in emergency mode. (See page 9-35.)

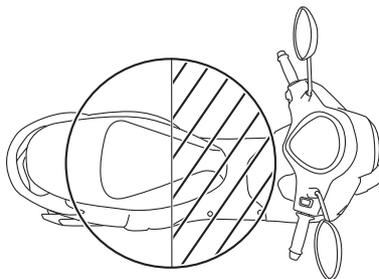
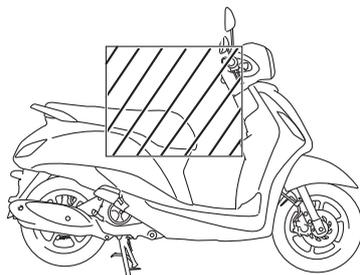
## TIP

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

## Operating range of the smart key system

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The approximate operating range of the smart key system is shown in the following illustration.



## TIP

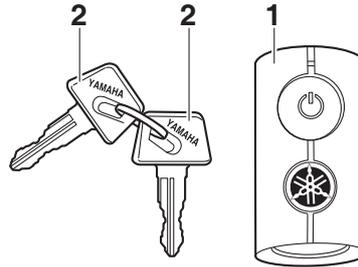
- As the smart key system uses weak radio waves, the operating range may be affected by the surrounding environment.
- When the battery of the smart key is discharged, the smart key may not work or its operating range may become very small.
- If the smart key is turned off, the vehicle will not recognize the smart key even if it is within operating range. If the smart key system does not operate, see page 4-5 and confirm that the smart key is turned on.
- Placing the smart key in the front or rear storage compartment may block communication between the smart key and the vehicle. If the rear storage compartment is locked with the smart key inside, the smart key system may be disabled. The smart key should always be carried with you.

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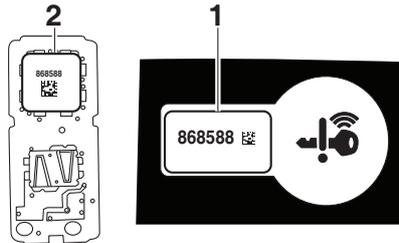
EWA17952

- When leaving the vehicle, make sure you lock the steering and take the smart key with you. It is recommended that you turn the smart key off.

## Handling of the smart key and mechanical keys



1. Smart key
2. Mechanical key



1. Identification number card
2. Identification number

### **⚠ WARNING**

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

Included with the vehicle is one smart key, two mechanical keys, and one identification number card. The identification number can also be found on the inside of the smart key itself. Keep one mechanical key and the identification number card in a safe place separate from the vehicle.

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

If the smart key and the smart key system identification number are both lost or damaged, the entire smart key sys-

# Smart key system (LTF125-A)

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tem will need to be replaced. To prevent this, it is recommended that you **write down the identification number in case the identification number card is lost.**

ECA21573

## **NOTICE**

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

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

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

## **TIP**

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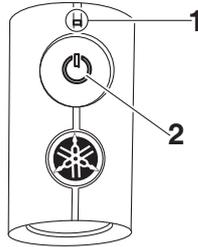
- The smart key battery life is approximately two years, but this may vary according to operating conditions.
- Replace the smart key battery when the smart key system indicator light flashes for 20 seconds when the vehicle is turned on, or when the smart key indicator light does not come on when the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

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

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

## Smart key

EAU76472



1. Smart key indicator light
2. Smart key button

### To turn the smart key on or off

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

### To check whether the smart key is turned on or off

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

If the smart key indicator light:

- Short flash (0.1 seconds): The smart key is turned on.
- Long flash (0.5 seconds): The smart key is turned off.

### Remote answer-back function

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

### Operating range of the answer-back function

The approximate operating range of the answer-back function using the smart key is shown in the following illustration.

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

### To turn the answer-back beeper on or off

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

1. Turn the smart key on and bring it within operating range.
2. Turn the main switch to "OFF", and then push the main switch knob once.
3. Within 9 seconds of pushing the knob, push and hold the knob again for 5 seconds.
4. When the beeper sounds, the setting is complete.

If the beeper:

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

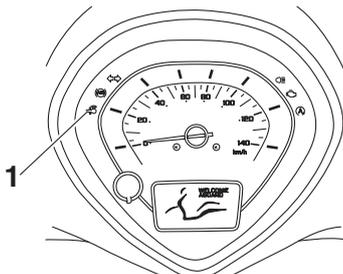
# Smart key system (LTF125-A)

EAU83290

## Replacing the smart key battery

Replace the battery in the following situations.

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



1. Smart key system indicator light “”

EWA14724

### WARNING

- The battery and other removable parts may cause injury if swallowed. Keep the battery and other removable parts away from children.

- Do not expose the battery to direct sunlight or other heat sources.

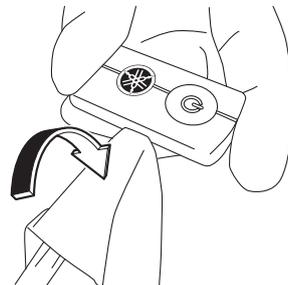
ECA15784

### NOTICE

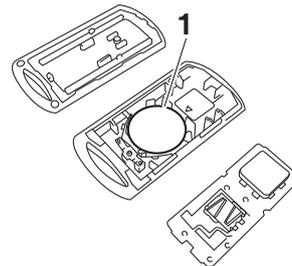
- Use a cloth when opening the smart key case with a screwdriver. Direct contact with hard objects may damage or scratch the smart key.
- Take precautions to prevent the waterproof seal from being damaged or contaminated by dirt.
- Do not touch the internal circuits and terminals. This may cause malfunctions.
- Do not apply excessive force to the smart key when replacing the battery.
- Make sure the battery is installed correctly. Confirm the direction of the positive/“+” side of the battery.

### To replace the smart key battery

1. Open the smart key case as shown.



2. Remove the battery.



1. Battery

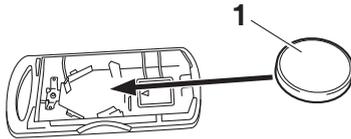
### TIP

Dispose of the removed battery in accordance with local regulations.

3. Install a new battery as shown. Note the polarity of the battery.

# Smart key system (LTF125-A)

**Specified battery:**  
CR2032

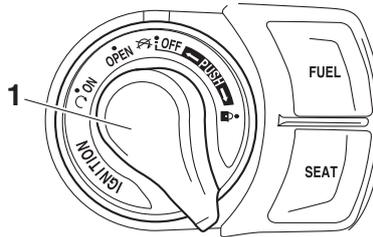


1. Battery

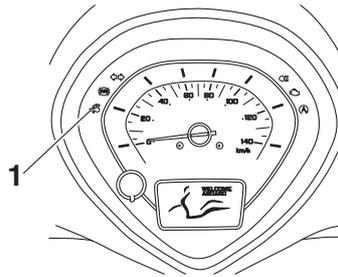
4. Gently snap the smart key case closed.

## Main switch

EAU76491



1. Main switch knob



1. Smart key system indicator light “”

The main switch is used to turn the vehicle power on and off, lock and unlock the steering, and open the seat or fuel tank cap lid. After pushing the main switch knob (and confirmation with the

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

EWA18720

### **WARNING**

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

### **TIP**

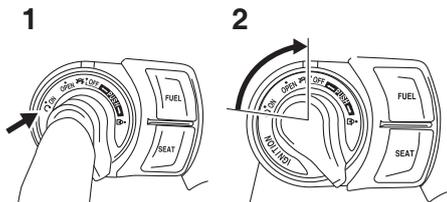
Do not push the main switch knob repeatedly or turn the main switch back and forth excessively (beyond normal use). To protect the main switch from damage, the smart key system will temporarily disable, and the smart key system indicator light will flash. If this occurs, wait until the indicator light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

The main switch positions are described below.

# Smart key system (LTF125-A)

## ON (on)

EAU76500



1. Push.
2. Turn.

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

### To turn the vehicle power on

1. Turn the smart key on and bring it within operating range.
2. Push the main switch knob and the smart key indicator light will come on for approximately 4 seconds.

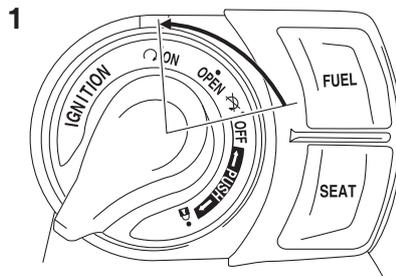
3. While the smart key system indicator light is on, turn the main switch to “ON”. All of the turn signal lights flash twice and the vehicle power turns on.

### TIP

- If the vehicle battery voltage is low, the turn signal lights will not flash.
- See “Emergency mode” on page 9-35 for information on turning the vehicle power on without the smart key.

## OFF (off)

EAU76510



1. Turn.

All electrical systems are off.

### To turn the vehicle power off

1. With the smart key turned on and within operating range, turn the main switch to “OFF”.
2. The turn signal lights flash once and the vehicle power turns off.

### TIP

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

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

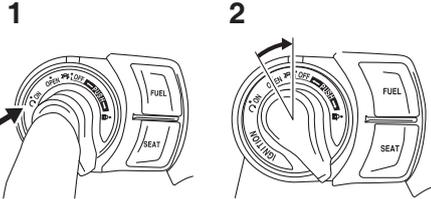
EAU0800

## OPEN (open)

The fuel tank cap lid and seat can be opened.

1. With the smart key on and within operating range, push the main switch knob.

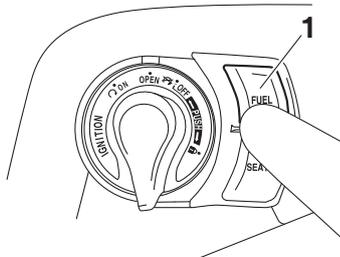
2. While the smart key system indicator light is on, turn the main switch to "OPEN".



1. Push.
2. Turn.

### To open the fuel tank cap lid

Push the "FUEL" button to open the fuel tank cap lid.



1. "FUEL" button

### To close the fuel tank cap lid

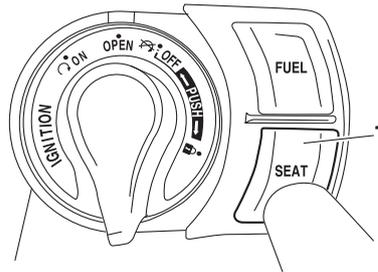
Push the fuel tank cap lid until it is closed.

### TIP

Make sure that the lid is securely closed before riding.

### To open the seat

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



1. "SEAT" button

### To close the seat

Close the seat and push down on the rear to lock it in position.

### TIP

Make sure that the seat is securely closed before starting off.

### Open position reminder

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

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

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

### TIP

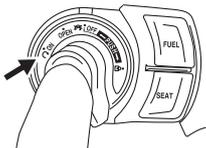
- The beeper will turn off after 1 minute.
- The seat can also be opened with the mechanical key. (See page 6-18.)

# Smart key system (LTF125-A)

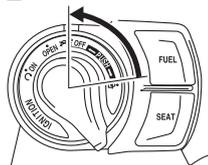
EAU76521

## “” (lock)

1



2



1. Push.
2. Turn.

The steering is locked and all electrical systems are off.

## To lock the steering

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

## TIP

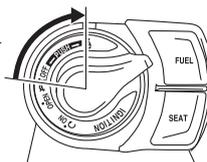
If the steering will not lock, try turning the handlebar back to the right slightly.

## To unlock the steering

1



2

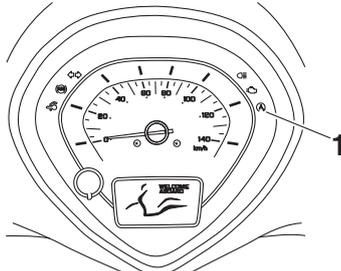


1. Push.
2. Turn.

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

## Stop and Start System

EAU76823



1. Stop and Start System indicator light “A”

The Stop and Start System is a system that stops the engine automatically when the vehicle is stopped while the Stop and Start System indicator light is on to prevent noise, control exhaust emissions, and reduce fuel consumption.

When the rider turns the throttle grip slightly, the engine restarts automatically and the vehicle starts off.

ECA23961

### NOTICE

**When parking the vehicle or leaving the vehicle unattended, be sure to turn the main switch off. If the Stop and Start System is left turned on, the battery could become dis-**

**charged and it may not be possible to restart the engine due to insufficient battery voltage.**

### TIP

- Although the engine normally stops at the same time the vehicle is stopped, it may take a while until the engine stops when operating the vehicle under 10km/h such as in heavy traffic.
- If you think the battery voltage has decreased because the engine cannot be started using the starter switch or for some other reason, do not turn on the Stop and Start System.
- Have a Yamaha dealer check the battery at the intervals specified in the periodic maintenance chart.

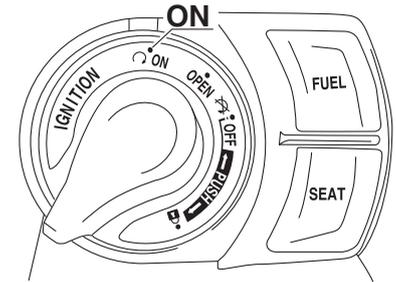
## Stop and Start System operation

EAU76671

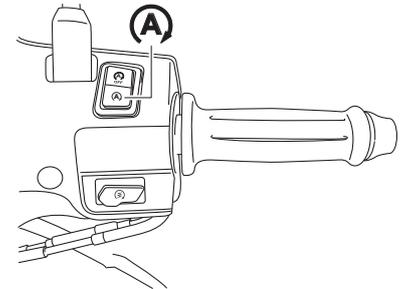
### Activating the Stop and Start System

EAU76684

1. Turn the main switch on.



2. Set the Stop and Start System switch to “A”.

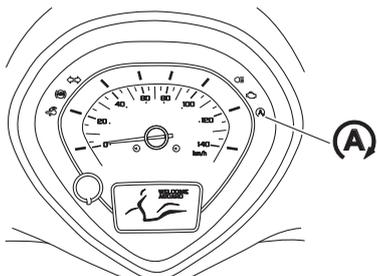


# Stop and Start System

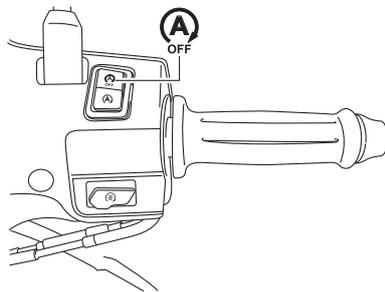
5

3. When the vehicle confirms that the following conditions are met, the Stop and Start System activates and the Stop and Start System indicator light comes on.

- The Stop and Start System switch is set to “(A)”.
- After the engine was warmed up, the engine was left idling for a certain period of time.
- The vehicle has traveled at a speed of 10 km/h or higher.



4. To turn off the Stop and Start System, set the Stop and Start System switch to “(A) OFF”.



## TIP

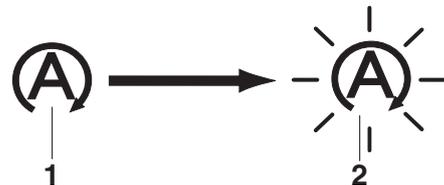
To preserve battery power, the Stop and Start System may not activate.

EAU76831

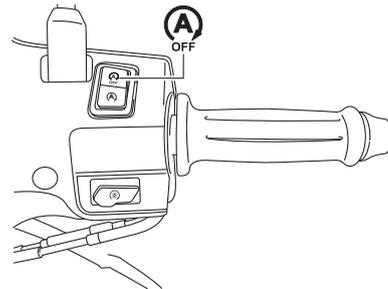
## Stop the engine

After the “(A)” indicator light on the multi-function meter comes on, the engine stops automatically when the engine is left idling when the vehicle is stopped and the throttle grip is in the fully closed position.

At this time, the “(A)” indicator light on the multi-function meter starts flashing to indicate that the engine is currently stopped by the Stop and Start System.



1. On
2. Flashing

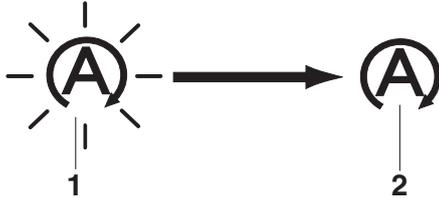


EAU76703

## Restart the engine

If you turn the throttle grip while the Stop and Start System indicator light is flashing and the engine is stopped, the engine restarts automatically and the “(A)” indicator light stops flashing.

# Stop and Start System

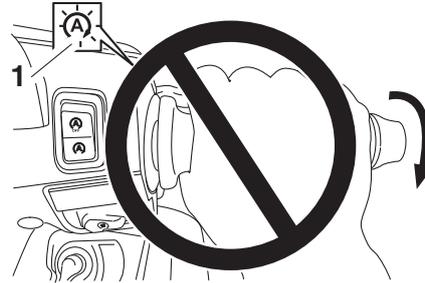


1. Flashing
2. Off

EWA18730

## **WARNING**

**Do not turn the throttle grip quickly when the Stop and Start System is activated and the engine is stopped. Otherwise, the vehicle could start moving unexpectedly after the engine restarts.**



## **TIP**

- When the sidestand is lowered, the Stop and Start System is deactivated.
- If the Stop and Start System does not operate correctly, have a Yamaha dealer check the vehicle.

EUA76711

## **Precautions when using the Stop and Start System**

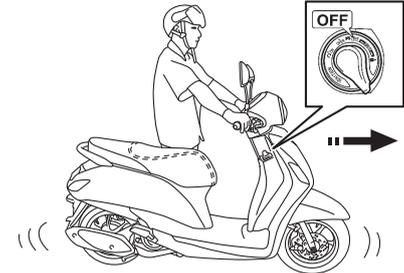
In order to prevent accidents due to improper operation, carefully read and observe the following precautions.

EWA18741

## **WARNING**

**When walking while pushing the vehicle, be sure to turn the main switch off. If the vehicle is pushed while the**

**Stop and Start System is left turned on, the engine could start and the vehicle could start moving if the throttle grip is turned accidentally.**

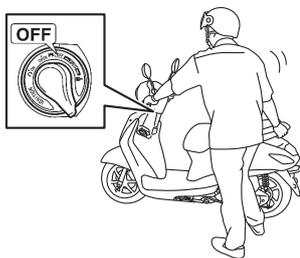


EWA18751

## **WARNING**

**When placing the vehicle on the centerstand, be sure to turn the main switch off. If the vehicle is placed on the centerstand while the Stop and Start System is left turned on, the engine could start and the vehicle could start moving if the throttle grip is turned accidentally.**

# Stop and Start System

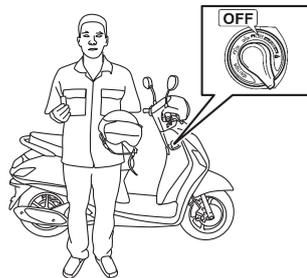


EWA18771

5

## **⚠ WARNING**

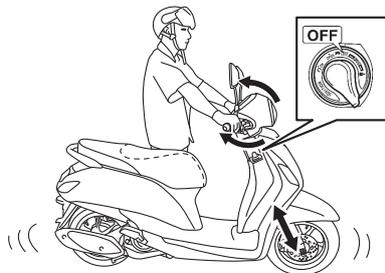
- When leaving the vehicle unattended, be sure to turn the main switch off.
- Do not leave the Stop and Start System turned on when parking the vehicle. Otherwise, the engine could start and the vehicle could start moving if the throttle grip is turned accidentally.



EWA18781

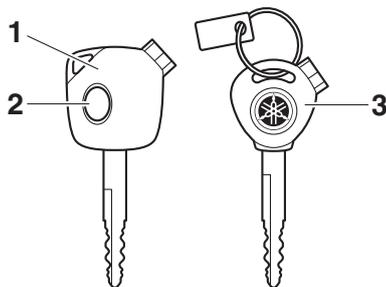
## **⚠ WARNING**

Before performing maintenance, be sure to turn the main switch off. If maintenance is performed while the Stop and Start System is turned on, the engine could start and the vehicle could start moving if the throttle grip is turned.



## Remote control unit (LTF125-I)

EAU61024



1. Main key (remote control)
2. Remote control button
3. Spare key

This vehicle is equipped with a main key that also functions as a remote control. The remote control unit can help you find the location of your parked vehicle and can open the keyhole shutter automatically as well. The remote control unit operations are described below.

### To find the location of your parked vehicle

Press the remote control button on the main key to flash the turn signal lights twice and sound the electronic alert twice.

### To open the keyhole shutter

Press the remote control button for at least one second to flash the turn signal lights once, sound the electronic alert once, and open the keyhole shutter.

### TIP

- The keyhole light will come on and then go out after about 30 seconds. If the battery voltage is low, the keyhole light will flash for 30 seconds.
- If the main key is not used in nine days, the remote operation functions are automatically canceled to reduce load on the battery. When the main switch is turned to “ON” again, function is restored.
- Holding the remote control improperly or other obstructions can reduce the effective range.

### NOTICE

The main key contains a battery and electronic circuits. Handle it carefully. Therefore:

- Do not drop the main key or subject it to strong impacts.
- Do not submerge it in water or other liquids.
- Do not place heavy items or excessive stress on the main key.
- Do not expose it to excessively high temperatures.
- Do not grind any key or alter its shape.

### To replace the key battery

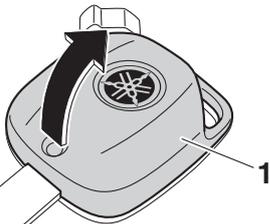
1. Remove the screw.



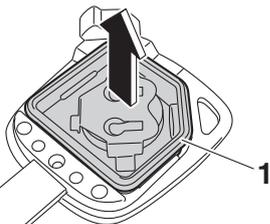
1. Screw

# Instrument and control functions

2. Remove the key cover, and then remove the remote control unit from the main key.

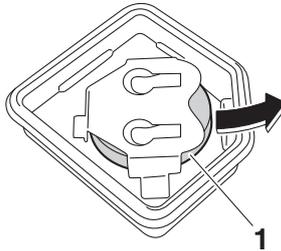


1. Key cover



1. Remote control unit

3. Remove the key battery.

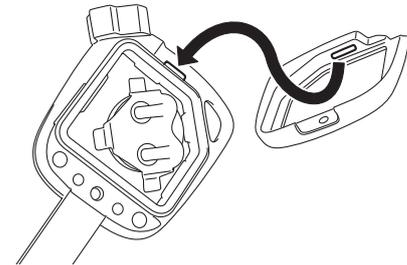


1. Key battery

4. Install a new key battery. **NOTICE:** Make sure that the positive (+) and negative (-) sides of the battery are facing in the correct directions. [ECA21240]

**Specified battery:**  
CR1632

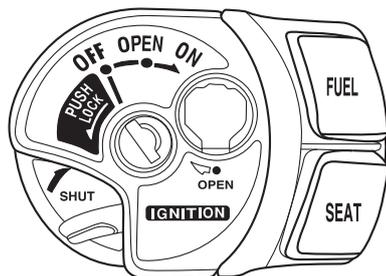
5. Install the remote control unit into the main key, and then install the key cover as shown.



6. Install the screw.

## Main switch/steering lock (LTF125-I)

EAU1031



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

**TIP** \_\_\_\_\_  
The main switch is equipped with a keyhole cover.

EAU0191

**ON**  
All electrical circuits are supplied with power, and the engine can be started. The key cannot be removed.

**TIP** \_\_\_\_\_  
● The meter lighting comes on automatically when the key is turned to “ON”.  
● The fuel pump can be heard when the key is turned to “ON”.

EAU45752

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

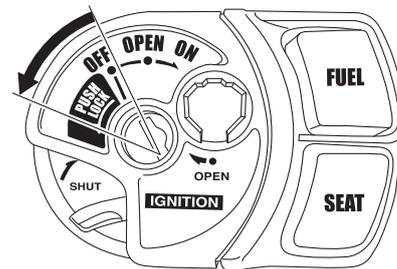
EWA10073

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

EAU43143

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

To lock the steering

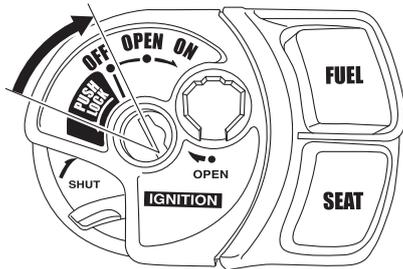


1. Turn the handlebars all the way to the left.
2. Push the key in from the “OFF” position, and then turn it to “LOCK” while still pushing it.
3. Remove the key.

**TIP** \_\_\_\_\_  
If the steering will not lock, try turning the handlebars back to the right slightly.

# Instrument and control functions

To unlock the steering

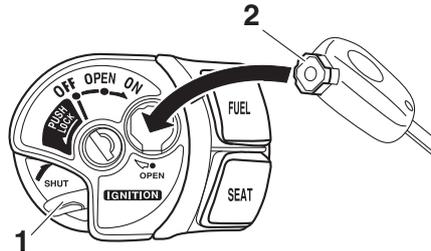


Insert the key and turn it to “OFF”.

6

## Keyhole shutter

EAU61011



1. “SHUT” lever
2. Keyhole shutter key

## To open the keyhole shutter

Use the remote control unit (See page 6-1.) or insert the keyhole shutter receptacle as shown, and then turn the key to “OPEN” to open the keyhole shutter.

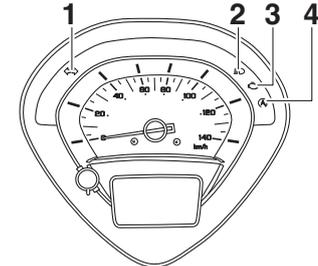
## To close the keyhole shutter

Push the “SHUT” lever inward to close the keyhole shutter.

## Indicator lights and warning lights

EAU77122

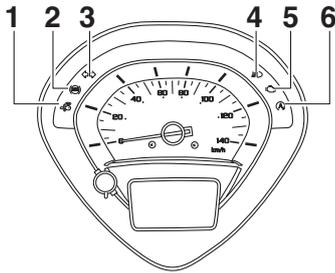
LTF125-I



1. Turn signal indicator light “ ”
2. High beam indicator light “”
3. Engine trouble warning light “”
4. Stop and Start System indicator light “”

# Instrument and control functions

## LTF125-A



1. Smart key system indicator light “”
2. Anti-lock Brake System (ABS) warning light “”
3. Turn signal indicator light “ ”
4. High beam indicator light “”
5. Engine trouble warning light “”
6. Stop and Start System indicator light “”

### Turn signal indicator lights “” and “”

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

### High beam indicator light “”

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

### Engine trouble warning light “”

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

The electrical circuit of the warning light can be checked by turning the main switch 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 main switch is turned on, or if the warning light remains on, have a Yamaha dealer check the electrical circuit.

### ABS warning light “” (for ABS models)

In normal operation, the ABS warning light comes on when the main switch is turned 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 main switch is turned 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 6-12 for an explanation of the ABS.)

### 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.**

# Instrument and control functions

## TIP \_\_\_\_\_

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

EAU61654

## Smart key system indicator light “” (LTF125-A)

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

## TIP \_\_\_\_\_

When the start switch is pushed, the indicator light will come on for about one second and then go off. If the indicator light does not come on or go off as normal, have a Yamaha dealer check the vehicle.

## Stop and Start System indicator light “”

This indicator light comes on when the Stop and Start System activates. The indicator light will flash when the engine is automatically stopped by the Stop and Start System.

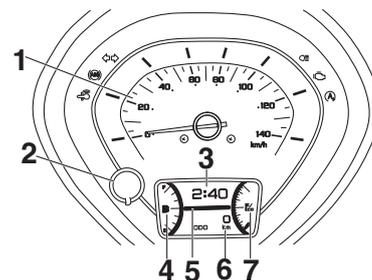
## TIP \_\_\_\_\_

Even if the Stop and Start Switch is set to “”, this indicator light may not come on. (See page 5-1.)

EAU76382

## Multi-function meter unit

EAU0753



1. Speedometer
2. “RESET/SELECT” button
3. Clock
4. Fuel meter
5. Running display
6. Multi-function display
7. Instantaneous fuel economy indicator

## WARNING

EWA12423

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

The multi-function meter unit is equipped with the following:

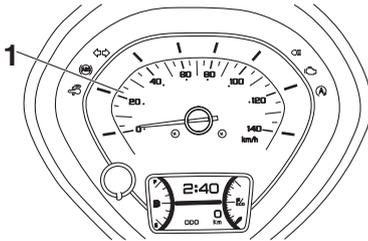
# Instrument and control functions

- clock
- fuel meter
- multi-function display
- instant fuel economy indicator
- Running display

## TIP

Be sure to turn the main switch on before using the “RESET/SELECT” button.

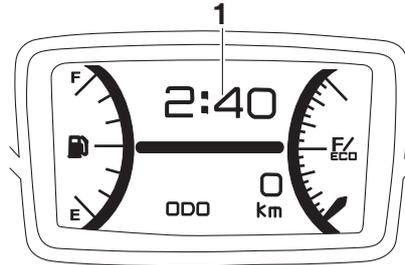
## Speedometer



1. Speedometer

The speedometer shows the vehicle's traveling speed.

## Clock



1. Clock

The clock uses a 12-hour time system.

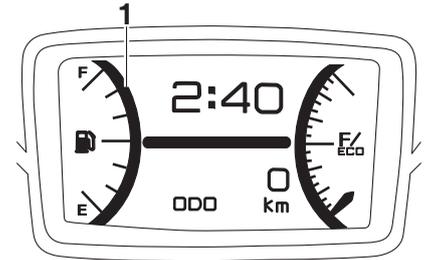
## To set the clock

1. With the display in the odometer mode, push the “RESET/SELECT” button for four seconds.
2. When the hour digits start flashing, use the “RESET/SELECT” button to set the hours.
3. Push the “RESET/SELECT” button for two seconds, and the minutes will start flashing.
4. Use the “RESET/SELECT” button to set the minutes.
5. Push the “RESET/SELECT” button for two seconds to start the clock.

## TIP

If you put main switch “OFF” while you set a clock, it will recognize a new time that you set although you are not set completely.

## Fuel meter



1. Fuel meter

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

## TIP

- There is not a reserve fuel system, so be careful not to run out of fuel.

# Instrument and control functions

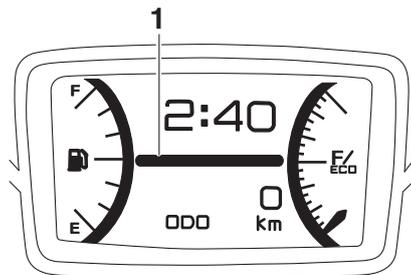
- If a problem is detected in the fuel meter electrical circuit, all the display segments will flash repeatedly. Have a Yamaha dealer check the vehicle.

ECAV0041

## NOTICE

When the fuel indicator has dropped to only one block, refuel as soon as possible, as the movement of fuel when going up or downhill or when turning may lead to the engine not getting any fuel, resulting in engine stop.

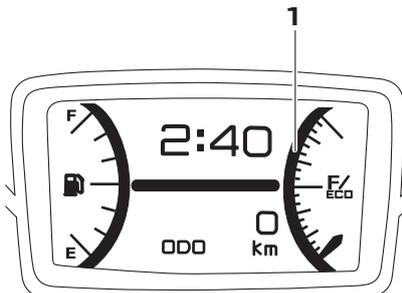
## Running display



1. Running display

The running display are activated when the vehicle move faster than 10 km/h.

## Instantaneous fuel economy indicator



1. Instantaneous fuel economy indicator

The instantaneous fuel economy indicator has eighteen segments which show the instantaneous fuel economy (fuel consumption) level.

The fuel economy will show blue segment (between scales 0-12) and green segment (between scales 12-18) depend on fuel are used and distance.

## Multi-function display

The multi-function display has:

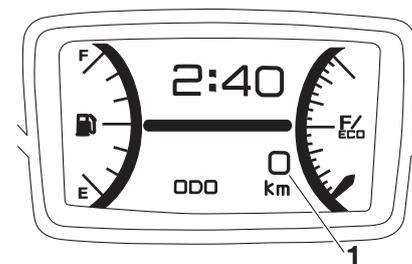
- odometer
- tripmeter

- instant fuel consumption
- average fuel consumption
- battery voltage indicator
- SMG assist mode icon

Push the “Display ON/OFF” button to switch the display between the odometer “ODO”, the tripmeter “TRIP”, the instant fuel consumption “F/ECO” (km/L or L/100 km), the average fuel consumption “AVE F/ECO” (km/L or L/100 km), and battery voltage “BATT” in the following order:

ODO → TRIP → F/ECO → AVE F/ECO → BATT → Display ON/OFF → ODO

## Odometer mode



1. Odometer

The odometer shows the total distance traveled by the vehicle.

## Tripmeter mode



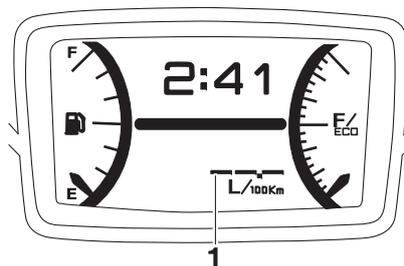
1. Tripmeter

The tripmeter shows the total distance traveled since it was last reset. To reset the tripmeter, push the “RESET/SELECT” button for one second.

### TIP

- The odometer will lock at 999999 and cannot be reset.
- The tripmeter will reset and continue counting after 9999.9 is reached.

## Instant fuel consumption mode



1. Instantaneous fuel consumption display

Instant fuel consumption units can be set to “km/L” or “L/100 km”.

- “km/L”: the distance that can be traveled on 1.0 L of fuel
- “L/100 km”: the amount of fuel necessary to travel 100 km

To change the instant fuel consumption units, push the “RESET/SELECT” button for one second.

### TIP

When traveling under 10 km/h, “\_ \_ . \_” is displayed.

## Average fuel consumption mode



1. Average fuel consumption display

The average fuel consumption units can be set to either “km/L” or “L/100 km”.

- “km/L”: the distance that can be traveled on 1.0 L
- “L/100 km”: the amount of fuel necessary to travel 100 km

To change the average fuel consumption units, push the “RESET/SELECT” button for one second.

To reset the average fuel consumption mode, push the “RESET/SELECT” button for one second.

### TIP

After resetting, “\_ \_ . \_” will be briefly shown.

# Instrument and control functions

## The battery voltage indicator

This shows the current charge state of the battery.

- 12.8 V or more: full charge
- 12.7 V or less: charging required

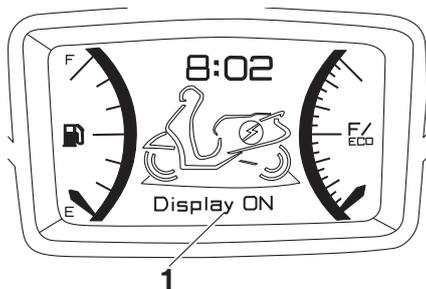
### TIP

If the battery voltage is less than 9.0 V, “\_ \_ \_ \_” will be displayed.

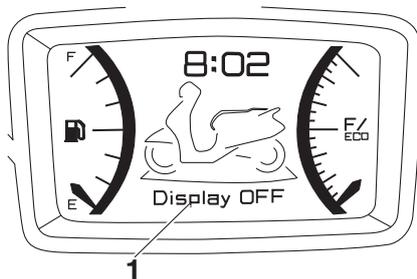
## SMG assist icon

This vehicle is equipped with a Smart Motor Generator (SMG) that not only starts the engine, but also assists with initial acceleration.

When the smart motor generator is assisting with acceleration, the display will show the SMG assist icon.



1. Display ON



1. Display OFF

The SMG assist icon can be turned off. To do so, push the “RESET/SELECT” button for one second. To turn the display back on, push the “RESET/SELECT” button for one second.

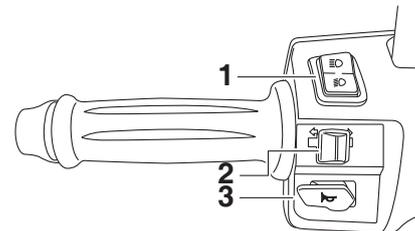
### TIP

When battery voltage is low, the smart motor generator may not assist with acceleration.

## Handlebar switches

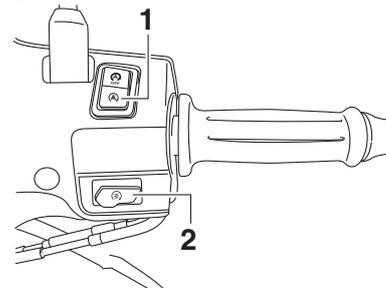
EAU1234M

### Left



1. Dimmer switch “/”
2. Turn signal switch “/”
3. Horn switch “”

### Right



1. Stop and Start System switch “/OFF”
2. Start switch “”

## Dimmer switch “☰/☷”

EAU12401

Set this switch to “☰” for the high beam and to “☷” for the low beam.

## Turn signal switch “↔/↔”

EAU12461

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

## Horn switch “🔊”

EAU12501

Press this switch to sound the horn.

## Start switch “🔌”

EAU12722

With the sidestand up, push this switch while applying the front or rear brake to crank the engine with the starter. See page 8-1 for starting instructions prior to starting the engine.

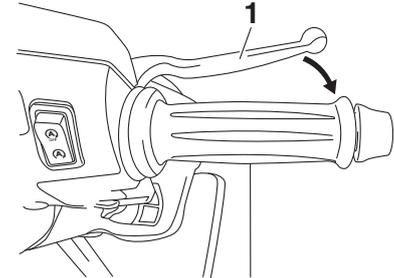
## Stop and Start System switch “(A)/(A)OFF”

EAU76391

To turn on the Stop and Start System, set the switch to “(A)”. To turn off the Stop and Start System, set this switch to “(A)OFF”.

## Brake lever

EAU12892



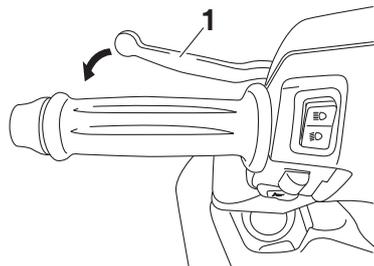
1. Front brake lever

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

# Instrument and control functions

## Rear brake lever

EAU12952



1. Rear brake lever

6

The rear brake lever is located on the left side of the handlebar. To apply the rear brake, pull this lever toward the handlebar grip.

## ABS (for ABS models)

EAU77821

This model's ABS (anti-lock brake system) acts on the front brake system. Operate the brakes as you normally would with a conventional brake system. If the ABS is activated, a pulsating sensation may be felt at the front brake lever. In this situation, continue to apply the brakes and let the ABS work; do not release and re-apply the brakes (i.e., pump the brakes) as this will reduce braking effectiveness.

### **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

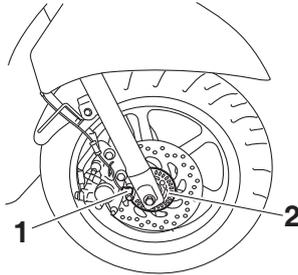
- The ABS performs a self-diagnosis test each time the vehicle first starts off after the main switch is turned on and the vehicle has traveled at a speed of 10 km/h (6 mi/h) or higher. During this test, a clicking noise may be audible, and a vibration may be felt at the brake lever, but these do not indicate a malfunction.
- The ABS has a test mode which allows the owner to experience the pulsating sensation at the front brake lever. However, special tools are required so please consult your Yamaha dealer.

ECA20100

## NOTICE

**Be careful not to damage the wheel sensor or wheel sensor rotor; otherwise, improper performance of the ABS will result.**

EAU62370

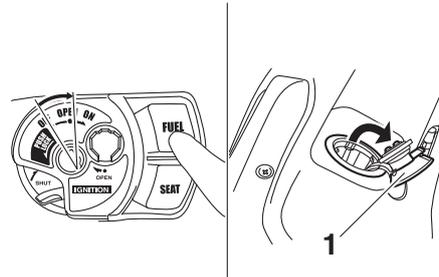


1. Front wheel sensor
2. Front wheel sensor rotor

## Fuel tank cap

### To remove the fuel tank cap

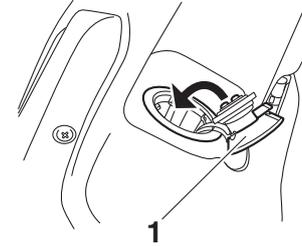
1. Insert the key into main switch and then turn it to “OPEN” position.



1. Fuel tank cap
2. Push the “FUEL” button to open the fuel tank cap.

### To install the fuel tank cap

Push the fuel tank cap down into its original position. A clicking sound can be heard when the fuel tank cap is locked.



1. Fuel tank cap

**! WARNING**

**Make sure that the fuel tank cap is properly installed before riding. Leaking fuel is a fire hazard.**

EWA10132

# Instrument and control functions

## Fuel

Make sure there is sufficient gasoline in the tank.

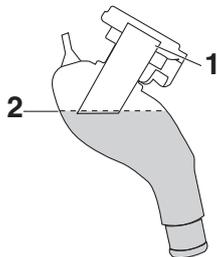
EAU13213

EWA10882

### **WARNING**

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

1. Before refueling, turn off the engine and be sure that no one is sitting on the vehicle. Never refuel while smoking, or while in the vicinity of sparks, open flames, or other sources of ignition such as the pilot lights of water heaters and clothes dryers.
2. Do not overfill the fuel tank. 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.** [ECA10072]
4. Be sure to securely close the fuel tank cap.

EWA15152

### **WARNING**

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

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

EAU0045

### **Recommended fuel:**

Regular unleaded gasoline (Gasohol [E10] acceptable)

### **Fuel tank capacity:**

4.4 L (1.2 US gal, 1.0 Imp.gal)

ECA11401

### **NOTICE**

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

### **Gasohol**

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

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

EAU13434

ECA10702

## Catalytic converter

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

EWA10863

### **WARNING**

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

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

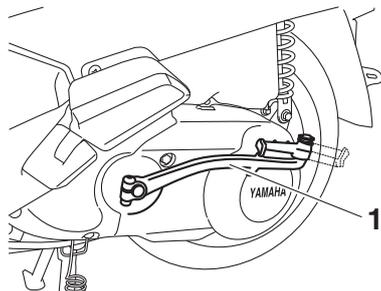
### **NOTICE**

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

# Instrument and control functions

## Kickstarter (LTF125-I)

EAU37652



1. Kickstarter

6

If the engine fails to start by pushing the start switch, try to start it by using the kickstarter. To start the engine, fold out the kickstarter lever, move it down lightly with your foot until the gears engage, and then push it down smoothly but forcefully.

## Seat

EAU80511

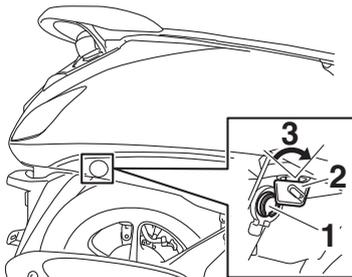
ECA24020

### For LTF125-A

To open the seat, use the “SEAT” button on the main switch. (See page 4-8.)

### To open the seat with the mechanical key

1. Open the keyhole cover.



1. Keyhole cover
2. Seat lock
3. Unlock.

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

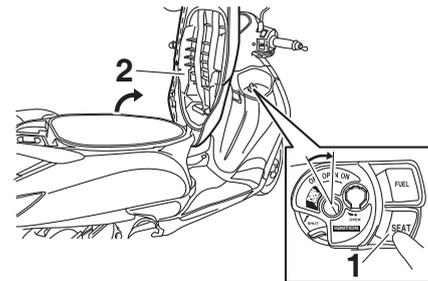
## **NOTICE**

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

### For LTF125-I

#### To open the seat

1. Insert the key into main switch and then turn it to “OPEN” position.



1. Seat lock
2. Seat

2. Push the “SEAT” button to open the seat.

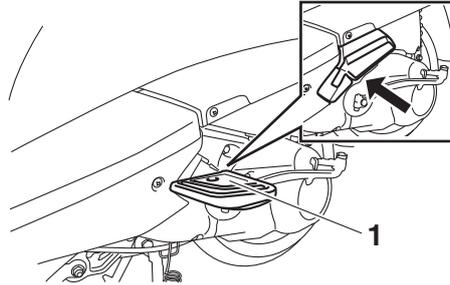
#### **To close the seat**

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

**TIP** \_\_\_\_\_  
Make sure that the seat is properly secured before riding.

## Passenger footrest

EAUJ1770



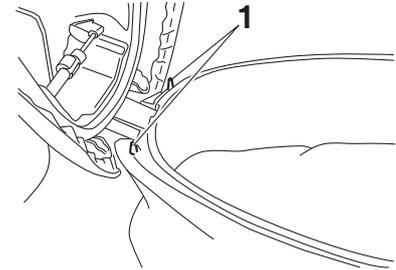
1. Passenger footrest

To use the passenger footrest, pull it out or push it inward and it will pop out as shown.

To retract the passenger footrest, push it back to its original position.

## Helmet holders

EAU37482



1. Helmet holder

The helmet holders are located under the seat.

### To secure a helmet to a helmet holder

1. Open the seat. (See page 6-16.)
2. Attach a helmet to a helmet holder, and then securely close the seat. **WARNING! Never ride with a helmet attached to the helmet holder, since the helmet may hit objects, causing loss of control and possibly an accident.** [EWA10162]

# Instrument and control functions

## To release a helmet from a helmet holder

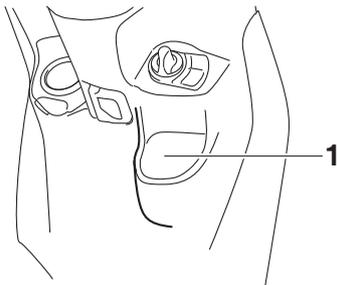
Open the seat, remove the helmet from the helmet holder, and then close the seat.

## Storage compartments

EAU57081

### Front storage compartment

The front storage compartment is located at the front of the vehicle. Use this compartment for small items.



1. Front storage compartment

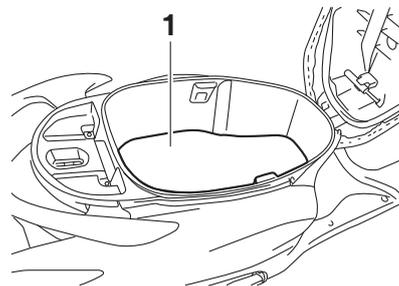
### WARNING

EWA17250

- Do not exceed the load limit of 1 kg (2.2 lb) for the front storage compartment.
- Do not place anything in the front storage compartment that will interfere with your operating the vehicle.

## Rear storage compartment

The rear storage compartment is located under the seat. Use this compartment for large items. (See page 6-16.)



1. Rear storage compartment

### WARNING

EWAT1052

- Do not exceed the load limit of 8 kg (17.6 lb) for the rear storage compartment.
- Do not exceed the maximum load of 160 kg (353 lb) for the vehicle.

### NOTICE

ECA21150

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 vehicle 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.

## TIP

Do not leave your vehicle unattended with the seat open.

EAU61380

## Luggage hook

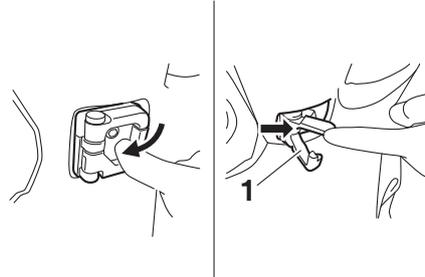
To use the luggage hook, pull it out as shown.

To retract the luggage hook, push it back to its original position.

EWAT1032

## ⚠ WARNING

- Do not exceed the load limit of 1 kg (2.2 lb) for the luggage hook.
- Do not exceed the maximum load of 160 kg (353 lb) for the vehicle.



1. Luggage hook

EAU70641

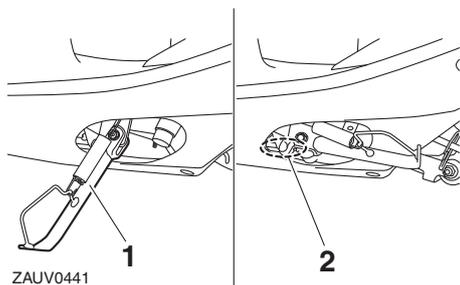
## Auxiliary DC connector

This vehicle is equipped with an auxiliary DC connector. Consult your Yamaha dealer before installing any accessories.

# Instrument and control functions

## Sidestand

EAU76780



ZAUV0441

1. Sidestand
2. Sidestand switch

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.)
- When the sidestand is lowered, the Stop and Start System is deactivated.

EWA10242



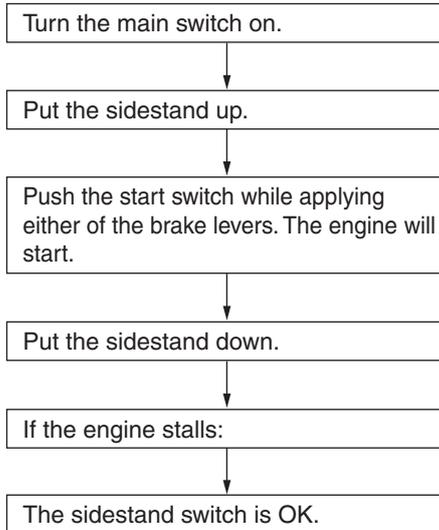
**WARNING**

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.

EAUT1097

## Ignition circuit cut-off system

Check the operation of the sidestand switch according to the following procedure.



## WARNING

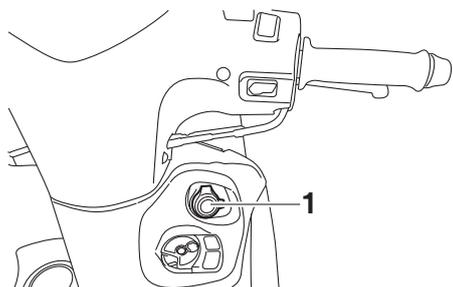
- The vehicle must be placed on the center-stand during this inspection.
- If a malfunction is noted, have a Yamaha dealer check the system before riding.

# Instrument and control functions

---

## Auxiliary DC jack

EAU49454



1. Auxiliary DC jack

6

A 12-V accessory connected to the auxiliary DC jack can be used when the main switch is on.

ECA15432

### **NOTICE**

---

**The accessory connected to the auxiliary DC jack should not be used with the engine turned off, and the load must never exceed 12 V, 1A, 12W, otherwise the fuse may blow or the battery may discharge.**

---

### **To use the auxiliary DC jack**

1. Turn the main switch off.
2. Remove the auxiliary DC jack cap.
3. Turn the accessory off.

4. Insert the accessory plug into the auxiliary DC jack.
5. Turn the main switch on, and start the engine. (See page 8-1.)
6. Turn the accessory on.

EWA14361

### **WARNING**

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**To prevent electrical shock or short-circuiting, make sure that the cap is installed when the auxiliary DC jack is not being used.**

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# For your safety – pre-operation checks

EAU15599

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

EWA11152

## **WARNING**

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

Before using this vehicle, check the following points:

ITEM	CHECKS	PAGE
Fuel	<ul style="list-style-type: none"><li>• Refuel if necessary.</li><li>• Check fuel line for leakage.</li></ul>	6-14
Engine oil	<ul style="list-style-type: none"><li>• Check oil level in engine.</li><li>• If necessary, add recommended oil to specified level.</li><li>• Check vehicle for oil leakage.</li></ul>	9-10
Final transmission oil	<ul style="list-style-type: none"><li>• Check vehicle for oil leakage.</li></ul>	9-12
Front brake	<ul style="list-style-type: none"><li>• Check operation.</li><li>• If soft or spongy, have Yamaha dealer bleed hydraulic system.</li><li>• Check brake pads for wear.</li><li>• Replace if necessary.</li><li>• Check fluid level in reservoir.</li><li>• If necessary, add specified brake fluid to specified level.</li><li>• Check hydraulic system for leakage.</li></ul>	9-20, 9-20
Rear brake	<ul style="list-style-type: none"><li>• Check operation.</li><li>• Lubricate cable if necessary.</li><li>• Check lever free play.</li><li>• Adjust if necessary.</li></ul>	9-19, 9-20

# For your safety – pre-operation checks

ITEM	CHECKS	PAGE
<b>Throttle grip</b>	<ul style="list-style-type: none"> <li>• Make sure that operation is smooth.</li> <li>• Check throttle grip free play.</li> <li>• If necessary, have Yamaha dealer adjust throttle grip free play and lubricate cable and grip housing.</li> </ul>	9-16, 9-22
<b>Control cables</b>	<ul style="list-style-type: none"> <li>• Make sure that operation is smooth.</li> <li>• Lubricate if necessary.</li> </ul>	9-22
<b>Wheels and tires</b>	<ul style="list-style-type: none"> <li>• Check for damage.</li> <li>• Check tire condition and tread depth.</li> <li>• Check air pressure.</li> <li>• Correct if necessary.</li> </ul>	9-16, 9-18
<b>Brake levers</b>	<ul style="list-style-type: none"> <li>• Make sure that operation is smooth.</li> <li>• Lubricate lever pivoting points if necessary.</li> </ul>	9-23
<b>Centerstand, sidestand</b>	<ul style="list-style-type: none"> <li>• Make sure that operation is smooth.</li> <li>• Lubricate pivots if necessary.</li> </ul>	9-23
<b>Chassis fasteners</b>	<ul style="list-style-type: none"> <li>• Make sure that all nuts, bolts and screws are properly tightened.</li> <li>• Tighten if necessary.</li> </ul>	—
<b>Instruments, lights, signals and switches</b>	<ul style="list-style-type: none"> <li>• Check operation.</li> <li>• Correct if necessary.</li> </ul>	—
<b>Sidestand switch</b>	<ul style="list-style-type: none"> <li>• Check operation of ignition circuit cut-off system.</li> <li>• If system is not working correctly, have Yamaha dealer check vehicle.</li> </ul>	6-20

EAU15952

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

EWA10272



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

EAUN0073

ECA0072

## **NOTICE**

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

EAU80441

ECA10251

## Starting the engine

## **NOTICE**

**See page 8-4 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 side-stand must be up. (See page 6-20.)

1. Turn the main switch on.

The following warning lights and indicator lights should come on for a few seconds, then go off.

- Engine trouble warning light
- Turn signal indicator lights
- Stop and Start System indicator light
- Smart key system indicator light (LTF125-A)
- ABS warning light (LTF125-A)

## **TIP**

The ABS warning light should come on and stay on until the vehicle reaches a traveling speed of 10 km/h (6 mi/h) or higher.

# Operation and important riding points

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ECA22510

## **NOTICE**

If a warning or indicator light does not work as described above, see page 6-4 for the corresponding warning and indicator light circuit check.

---

2. Close the throttle.
3. While applying the front or rear brake, push the start switch. Release it when the engine starts.

## **TIP**

- If the engine does not start, release the start switch after 5 seconds. Before pressing the start switch again, wait 10 seconds to allow battery voltage to restore.
  - When the Stop and Start System is activated, turning the throttle grip will start the engine. (See page 5-1.)
  - For (LTF125-I), if the engine will not start by pushing the start switch, try using the kickstarter.
- 

ECA11043

## **NOTICE**

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

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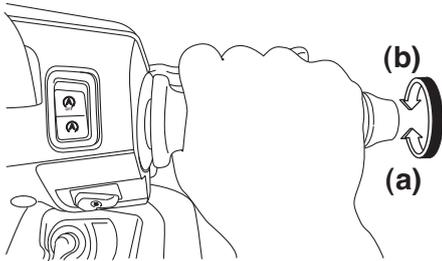
EAU45093

## **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 center-stand.
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.

## Acceleration and deceleration

EAU16782



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).

## Braking

EAU16794

EWA10301

### **⚠ 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.

## Tips for reducing fuel consumption

EAU16821

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).

# Operation and important riding points

---

## 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.

EAU16842

## 1600 km (1000 mi) and beyond

The vehicle can now be operated normally.

ECA10271

### **NOTICE**

**If any engine trouble should occur during the engine break-in period, immediately have a Yamaha dealer check the vehicle.**

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EAU77860

## Parking

When parking, turn off the Stop and Start System and then stop the engine. After turning off the main switch, be sure to remove the key and take it with you. For smart key models, be sure to turn off the smart key and take with you.

EWA18840

### **⚠ 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.**
  - **If the Stop and Start System is left turned on, the battery could become discharged and it may not be possible to restart the engine due to insufficient battery voltage.**
- 

8

## 0–1000 km (0–600 mi)

Avoid prolonged operation above 1/3 throttle. **NOTICE: After 1000 km (600 mi) of operation, be sure to replace the engine oil and final transmission oil.** [ECA11662]

## 1000–1600 km (600–1000 mi)

Avoid prolonged operation above 1/2 throttle.

EAUM2012

### TIP

Even when the vehicle is parked in a location partitioned by a fence or the glass window of a shop, if the smart key is within operating range, other people will be able to start the engine and operate the vehicle. Please turn the smart key off when leaving the vehicle. (See page 4-8.)

---

# Periodic maintenance and adjustment

EAU17246

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

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

EWA10322

## **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.**

EWA15123

## **WARNING**

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

- **A running engine has moving parts that can catch on body parts or clothing and electrical parts that can cause shocks or fires.**
- **Running the engine while servicing can lead to eye injury, burns, fire, or carbon monoxide poisoning – possibly leading to death. See page 2-3 for more information about carbon monoxide.**

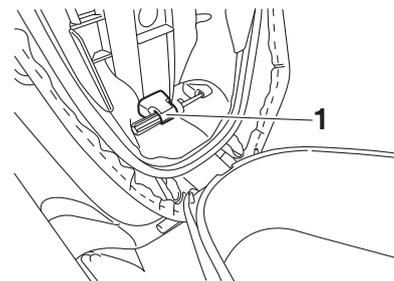
EWA15461

## **WARNING**

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

EAU39694

## Tool kit



1. Owner's tool kit

The tool kit is located on the bottom of the seat. (See page 6-16.)

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

## **TIP**

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

# Periodic maintenance and adjustment

EAUU0621

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

EAUU1294

## Periodic maintenance chart for the emission control system

NO.	ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING (whichever comes first)					ANNUAL CHECK
			1000 km or 2 months	4000 km or 6 months	8000 km or 10 months	12000 km or 14 months	16000 km or 18 months	
1	* Fuel line	<ul style="list-style-type: none"> <li>• Check fuel hoses for cracks or damage.</li> </ul>		√	√	√	√	√
2	* Fuel filter	<ul style="list-style-type: none"> <li>• Check condition.</li> <li>• Replace if necessary.</li> </ul>	Every 12000 km (7500 mi)					
3	* Spark plug	<ul style="list-style-type: none"> <li>• Check condition.</li> <li>• Clean and regap.</li> </ul>		√	√	√	√	
		<ul style="list-style-type: none"> <li>• Replace.</li> </ul>	Every 8000 km (5000 mi)					
4	* Valves	<ul style="list-style-type: none"> <li>• Check valve clearance.</li> <li>• Adjust if necessary.</li> </ul>			√		√	
5	* Fuel injection	<ul style="list-style-type: none"> <li>• Adjust engine idling speed.</li> </ul>	√	√	√	√	√	√
6	* Exhaust system	<ul style="list-style-type: none"> <li>• Check for leakage.</li> <li>• Tighten if necessary.</li> <li>• Replace gasket(s) if necessary.</li> </ul>		√	√	√	√	√

# Periodic maintenance and adjustment

EAUU1287

## General maintenance and lubrication chart

NO.	ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING (whichever comes first)					ANNUAL CHECK
			1000 km or 2 months	4000 km or 6 months	8000 km or 10 months	12000 km or 14 months	16000 km or 18 months	
1	* Diagnostic system check	<ul style="list-style-type: none"> <li>Perform dynamic inspection using Yamaha diagnostic tool.</li> <li>Check the error codes.</li> </ul>	√	√	√	√	√	√
2	Air filter element	<ul style="list-style-type: none"> <li>Replace.</li> </ul>	Every 16000 km					
3	Air filter check hose	<ul style="list-style-type: none"> <li>Clean.</li> </ul>	√	√	√	√	√	
4	V-belt case air filter element	<ul style="list-style-type: none"> <li>Clean.</li> <li>Replace if necessary.</li> </ul>		√	√	√	√	
5	* Battery	<ul style="list-style-type: none"> <li>Check voltage.</li> <li>Charge if necessary.</li> </ul>	√	√	√	√	√	√
6	* Front brake	<ul style="list-style-type: none"> <li>Check operation, fluid level and vehicle for fluid leakage.</li> </ul>	√	√	√	√	√	√
		<ul style="list-style-type: none"> <li>Replace brake pads.</li> </ul>	Whenever worn to the limit					
7	* Rear brake	<ul style="list-style-type: none"> <li>Check operation and adjust brake lever free play.</li> </ul>	√	√	√	√	√	√
		<ul style="list-style-type: none"> <li>Replace brake shoes.</li> </ul>	Whenever worn to the limit					
8	* Brake hose	<ul style="list-style-type: none"> <li>Check for cracks or damage.</li> <li>Check for correct routing and clamping.</li> </ul>		√	√	√	√	√
		<ul style="list-style-type: none"> <li>Replace.</li> </ul>	Every 4 years					
9	* Brake fluid	<ul style="list-style-type: none"> <li>Change.</li> </ul>	Every 2 years					
10	* Wheels	<ul style="list-style-type: none"> <li>Check runout and for damage.</li> <li>Replace if necessary.</li> </ul>		√	√	√	√	

# Periodic maintenance and adjustment

NO.	ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING (whichever comes first)					ANNUAL CHECK
			1000 km or 2 months	4000 km or 6 months	8000 km or 10 months	12000 km or 14 months	16000 km or 18 months	
11	* Tires	<ul style="list-style-type: none"> <li>• Check tread depth and for damage.</li> <li>• Replace if necessary.</li> <li>• Check air pressure.</li> <li>• Correct if necessary.</li> </ul>		√	√	√	√	√
12	* Wheel bearings	<ul style="list-style-type: none"> <li>• Check bearings for looseness or damage.</li> </ul>		√	√	√	√	
13	* Steering bearings	<ul style="list-style-type: none"> <li>• Check bearing play and steering for roughness.</li> </ul>	√	√	√	√	√	
		<ul style="list-style-type: none"> <li>• Lubricate with lithium-soap-based grease.</li> </ul>	Every 12000 km (7500 mi)					
14	* Chassis fasteners	<ul style="list-style-type: none"> <li>• Make sure that all nuts, bolts and screws are properly tightened.</li> </ul>		√	√	√	√	√
15	Front brake lever pivot shaft	<ul style="list-style-type: none"> <li>• Lubricate with silicone grease.</li> </ul>		√	√	√	√	√
16	Rear brake lever pivot shaft	<ul style="list-style-type: none"> <li>• Lubricate with lithium-soap-based grease.</li> </ul>		√	√	√	√	√
17	Sidestand, center-stand	<ul style="list-style-type: none"> <li>• Check operation.</li> <li>• Lubricate with lithium-soap-based grease.</li> </ul>		√	√	√	√	√
18	* Sidestand switch	<ul style="list-style-type: none"> <li>• Check operation.</li> </ul>	√	√	√	√	√	√
19	* Front fork	<ul style="list-style-type: none"> <li>• Check operation and for oil leakage.</li> </ul>		√	√	√	√	
20	* Shock absorber assemblies	<ul style="list-style-type: none"> <li>• Check operation and shock absorbers for oil leakage.</li> </ul>		√	√	√	√	

# Periodic maintenance and adjustment

NO.	ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING (whichever comes first)					ANNUAL CHECK
			1000 km or 2 months	4000 km or 6 months	8000 km or 10 months	12000 km or 14 months	16000 km or 18 months	
21	Engine oil	<ul style="list-style-type: none"> <li>• Change.</li> <li>• Check oil level and vehicle for oil leakage.</li> </ul>	√	√	√	√	√	
22	* Engine oil strainer	<ul style="list-style-type: none"> <li>• Clean.</li> </ul>	√					√
23	Final transmission oil	<ul style="list-style-type: none"> <li>• Check vehicle for oil leakage.</li> </ul>	√	√	Every 8000 km (5000 mi)			
		<ul style="list-style-type: none"> <li>• Change.</li> </ul>	√	Every 12000 km (7500 mi)				
24	* V-belt	<ul style="list-style-type: none"> <li>• Check for damage and wear.</li> </ul>			√	√	√	√
		<ul style="list-style-type: none"> <li>• Replace.</li> </ul>	Every 25000 km (15500 mi)					
25	* V-belt secondary sheave	<ul style="list-style-type: none"> <li>• Lubricate.</li> </ul>	Every 12000 km (7500 mi)					
26	* Front and rear brake switches	<ul style="list-style-type: none"> <li>• Check operation.</li> </ul>	√	√	√	√	√	√
27	Moving parts and cables	<ul style="list-style-type: none"> <li>• Lubricate.</li> </ul>		√	√	√	√	√
28	* Throttle grip	<ul style="list-style-type: none"> <li>• Check operation.</li> <li>• Check throttle grip free play, and adjust if necessary.</li> <li>• Lubricate cable and grip housing.</li> </ul>		√	√	√	√	√
29	* Lights, signals and switches	<ul style="list-style-type: none"> <li>• Check operation.</li> <li>• Adjust headlight beam.</li> </ul>	√	√	√	√	√	√

## TIP

- Air filter
  - This model's air filter is equipped with a disposable oil-coated paper element, which must not be cleaned with compressed air to avoid damaging it.
  - The air filter element needs to be replaced more frequently when riding in unusually wet or dusty areas.
- V-belt case air filter
  - The air filter needs more frequent service if you are riding in unusually wet or dusty areas.
- V-belt
  - The V-belt should be checked at the initial 8000 km (5000 mi) and every 4000 km (2500 mi) thereafter. Replace the V-belt if any damage or wear is found. The V-belt needs to be replaced every 25000 km (16000 mi) even if there is no wear or damage.
- Hydraulic brake service
  - Regularly check and, if necessary, correct the brake fluid level. After disassembling the brake master cylinders and calipers, always change the brake fluid.
  - Every two years replace the internal components of the brake master cylinder and caliper, and change the brake fluid.
  - Replace the brake hose every four years and if cracked or damaged.
- Fuel system service
  - 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.
  - Replace the fuel filler cover every two years or if cracked or damaged.
  - Check the fuel filter if clogged or damaged every 12000 km (7500 mi).
- Battery service
  - Check the condition and service every 3 months.
  - Recharge the battery immediately if the voltage is less than 12.4 V.
  - If the battery tends to discharge, replace it immediately.

## **Periodic maintenance and adjustment**

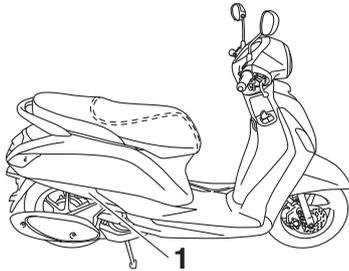
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- If the vehicle will not be used for more than one month, remove the battery, fully charge it, and then place it in a cool, dry place.
-

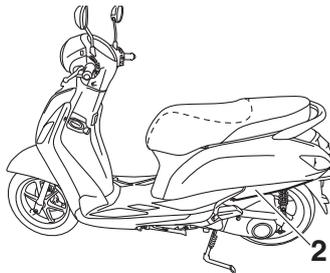
## Removing and installing panels

EAU18773

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.



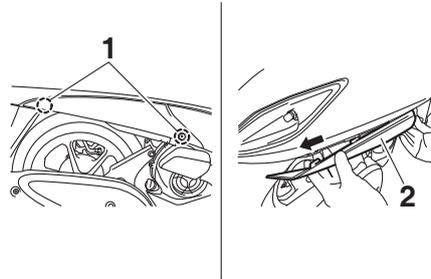
1. Panel A
2. Panel B



EAUS1492

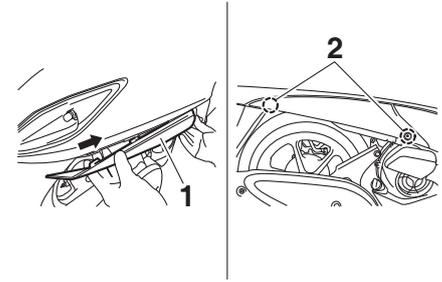
### Panel A

To remove the panel  
Remove the screws, and then take the panel off.



1. Screw
2. Panel A

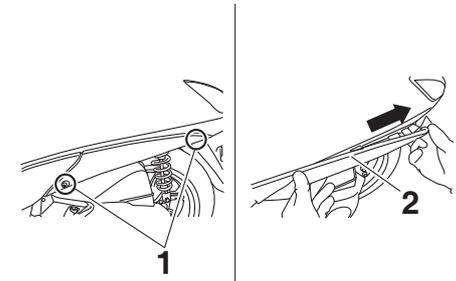
To install the panel  
Place the panel in the original position, and then install the screws.



1. Panel A
2. Screw

### Panel B

To remove the panel  
Remove the screw, and then take the panel off.

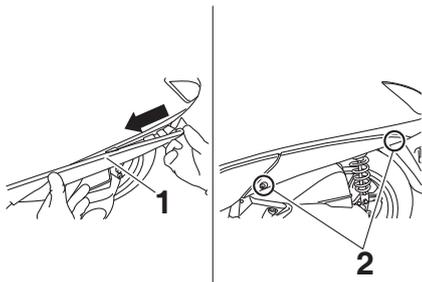


1. Screw
2. Panel B

# Periodic maintenance and adjustment

## To install the panel

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



1. Panel B
2. Screw

## Checking the spark plug

EAU19623

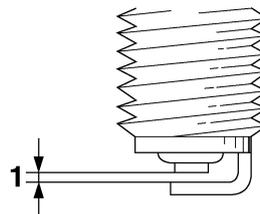
The spark plug is an important engine component, which should be checked periodically, preferably by a Yamaha dealer. Since heat and deposits will cause any spark plug to slowly erode, it should be removed and checked in accordance with the periodic maintenance and lubrication chart. In addition, the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

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

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

**Specified spark plug:**  
NGK/CR6HSA

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



1. Spark plug gap

**Spark plug gap:**  
0.6–0.7 mm (0.024–0.028 in)

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

**Tightening torque:**  
Spark plug:  
13 N·m (1.3 kgf·m, 9.6 lb·ft)

# Periodic maintenance and adjustment

## TIP

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

## Engine oil and oil strainer

EAU62845

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

### To check the engine oil level

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

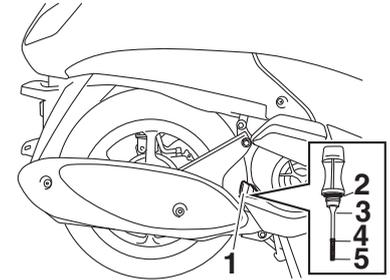
## WARNING

EWAU0031

The muffler and muffler protector become very hot during use. To avoid possible burns, let the muffler and protector cool before removing the oil filler cap.

## TIP

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



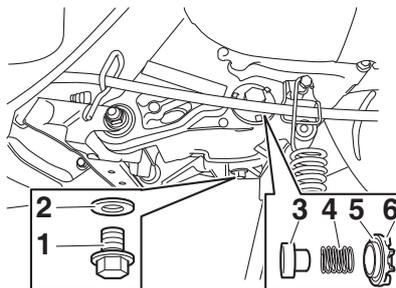
1. Engine oil filler cap
2. O-ring
3. Engine oil dipstick
4. Maximum level mark
5. Tip of the engine oil dipstick

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

# Periodic maintenance and adjustment

## To change the engine oil and clean the oil strainer

1. Start the engine, warm it up for several minutes, and then turn it off.
2. Place an oil pan under the engine to collect the used oil.
3. Remove the engine oil filler cap and drain bolt B to drain the oil from the crankcase. **NOTICE: When removing the engine oil drain bolt, the O-ring, compression spring, and oil strainer will fall out. Take care not to lose these parts.** [ECA111002]



1. Engine oil drain bolt A
2. Gasket
3. Oil strainer
4. Compression spring
5. O-ring
6. Engine oil drain bolt B

**TIP** \_\_\_\_\_  
When only changing the engine oil, remove drain bolt A. When changing the engine oil and cleaning the engine oil strainer, remove drain bolt B also.

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

5. Install the engine oil strainer, compression spring, engine oil drain bolt with new O-ring, and then tighten the drain bolt to the specified torque.

**TIP** \_\_\_\_\_  
Make sure that the O-ring is properly seated.

### Tightening torque:

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

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

### Recommended engine oil:

See page 11-1.

### Oil quantity:

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

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

ECA11671

## NOTICE

- 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.
- Be sure no foreign material enters the crankcase.

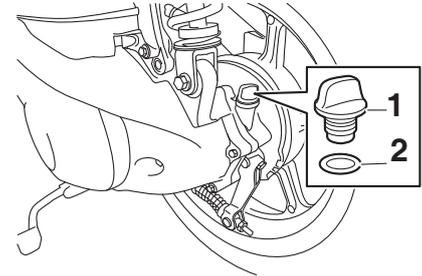
7. Start the engine, and then let it idle for several minutes while checking it for oil leakage. If oil is leaking, immediately turn the engine off and check for the cause.
8. Turn the engine off, and then check the oil level and correct it if necessary.

EAU67821

## Final transmission oil

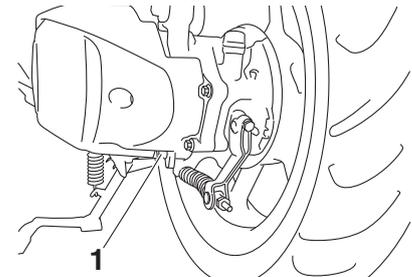
The final transmission case must be checked for oil leakage before each ride. If any leakage is found, have a Yamaha dealer check and repair your motorcycle. In addition, the final transmission oil must be changed as follows at the intervals specified in the periodic maintenance and lubrication chart.

1. Start the engine and warm up the final transmission oil by riding the motorcycle for several minutes.
2. Stop the engine and then place the motorcycle on the center-stand.
3. Place an oil pan under the final transmission case to collect the used oil.
4. Remove the final transmission oil filler cap and its O-ring from the final transmission case.



1. Final transmission oil filler cap
2. O-ring

5. Remove the final transmission oil drain bolt and its gasket to drain the oil from the final transmission case.



1. Final transmission oil drain bolt

# Periodic maintenance and adjustment

6. Install the final transmission oil drain bolt and its new gasket, and then tighten the bolt to the specified torque.

## TIP

- Before installing the final transmission oil drain bolt and gasket, apply oil to them.
- Wipe off any excess oil afterwards.

### Tightening torque:

Final transmission oil drain bolt:  
9 N·m (0.9 kgf·m, 6.6 lb·ft)

7. Refill with the specified amount of the recommended final transmission oil. **WARNING! Make sure that no foreign material enters the final transmission case. Make sure that no oil gets on the tire or wheel.**<sup>[EWA11312]</sup>

### Recommended final transmission oil:

See page 11-1.

### Oil quantity:

0.10 L (0.11 US qt, 0.09 Imp.qt)

8. Install the final transmission oil filler cap and its new O-ring, and then tighten the oil filler cap.
9. Check the final transmission case for oil leakage. If oil is leaking, check for the cause.

EAUU2120

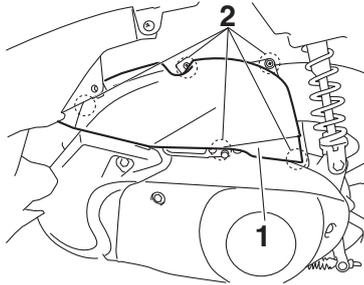
## Air filter and V-belt case air filter elements

The air filter element should be replaced every 16000 km (10000 mi) and the V-belt case air filter element should be cleaned at the intervals specified in the periodic maintenance and lubrication chart. Service the air filter elements more frequently if you are riding in unusually wet or dusty areas.

## Checking and replacing the air filter element

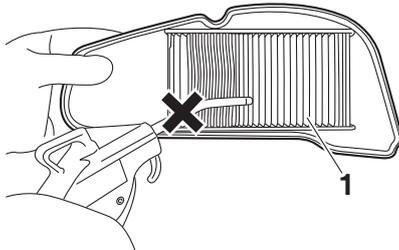
1. Place the vehicle on the centerstand.
2. Remove the left rear panel.
3. Remove the air filter case cover by removing the screws.

# Periodic maintenance and adjustment



1. Air filter case cover
2. Screw

4. Remove the air filter element by pulling it out.
5. Check the air filter element for excessive dirt or damage and replace it if necessary.

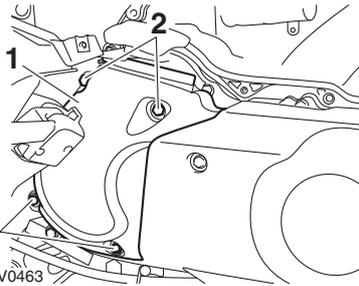


1. Air filter element

6. Place the air filter element in its original position.
7. Install the air filter case cover by installing the screws.
8. Install the left rear panel.

## Cleaning the V-belt case air filter element

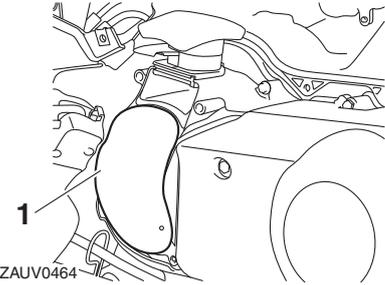
1. Place the vehicle on the center-stand.
2. Remove the V-belt air filter case cover by removing the bolts.



ZAUUV0463

1. V-belt air filter case cover
2. Bolt

3. Remove the element by pulling it out.

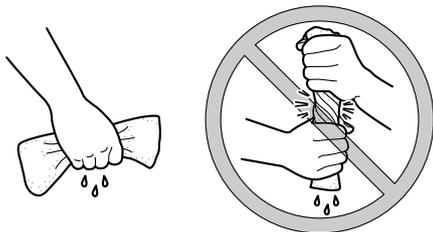


ZAUUV0464

1. V-belt case air filter element

4. Clean the element with solvent, and then squeeze the remaining solvent out.
5. Check the element for damage and replace it if necessary.
6. Apply oil of the recommended type to the entire surface of the element, and then squeeze the excess oil out. **WARNING!** Use only a dedicated parts cleaning solvent. To avoid the risk of fire or explosion, do not use gasoline or solvents with a low flash point. [EWA10432] **NOTICE:** To avoid damaging the air filter element, handle it gently and carefully, and do not twist it. [ECA10522]

# Periodic maintenance and adjustment



**TIP**  
The element should be wet but not dripping.

## Recommended oil:

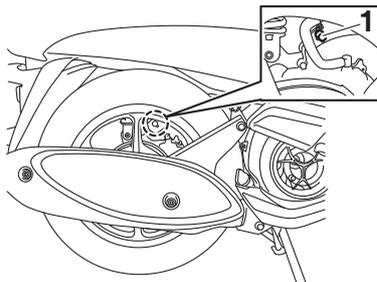
Yamaha foam air filter oil or other quality foam air filter oil

7. Install the element into the filter case.
8. Place the air filter case cover in its original position, and then install the bolts. **NOTICE: Make sure that each filter element is properly seated in its case. The engine should never be operated without the filter elements in-**

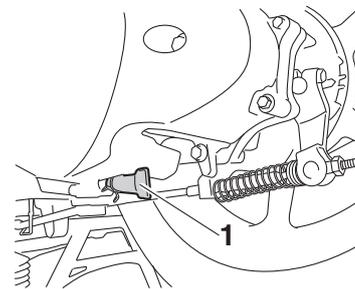
stalled, otherwise the piston(s) and/or cylinder(s) may become excessively worn. [ECA10532]

## Cleaning the air filter check hoses

1. Check each cap at the bottom left side of the air filter case and the hose at the bottom of the V-belt case for accumulated dirt or water.



1. Air filter check hose



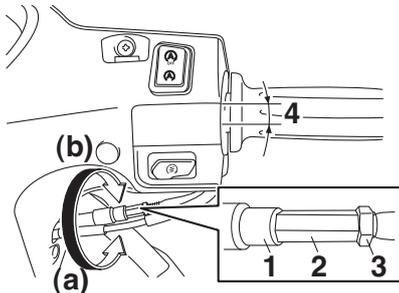
1. V-belt case check hose

2. If dirt or water is visible, remove the hose from their clamp.
3. Drain dirt or water into a proper container.
4. Install the air filter check hose to the original position.

**TIP**  
The air filter check hose need more frequent cleaning after riding in the rain, washing the vehicle, or in case of over-tur. If the check hose or caps are clogged, have a Yamaha dealer service the vehicle.

EAU1211

## Adjusting the throttle grip free play



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

The throttle grip free play should measure 3.0–7.0 mm (0.12–0.28 in) as shown. Periodically check the throttle grip free play and, if necessary, adjust it as follows.

1. Loosen the locknut.
2. To increase the throttle grip free play, turn the adjusting nut in direction (a). To decrease the throttle grip free play, turn the adjusting nut in direction (b).
3. Tighten the locknut.

EAU21403

## Valve clearance

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

**TIP** \_\_\_\_\_  
This service must be performed when the engine is cold.

EAU82720

## Tires

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

### Tire air pressure

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

EWA10504

### **WARNING**

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

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

# Periodic maintenance and adjustment

EWA10583

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

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

**1 person:**

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

Rear:  
225 kPa (2.25 kgf/cm<sup>2</sup>, 33 psi)

**2 persons:**

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

Rear:  
225 kPa (2.25 kgf/cm<sup>2</sup>, 33 psi)

**Maximum load\*:**

160 kg (353 lb)

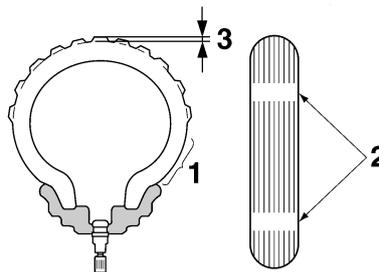
\* Total weight of rider, passenger, cargo and accessories

EWA10512

**9** **! WARNING**

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

## Tire inspection



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

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

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

1.0 mm (0.04 in)

**! WARNING**

- It is dangerous to ride with a worn-out tire. When a tire tread begins to show crosswise lines, have a Yamaha dealer replace the tire immediately.
- The replacement of all wheel and brake-related parts, including the tires, should be left to a Yamaha dealer, who has the necessary professional knowledge and experience to do so.
- Ride at moderate speeds after changing a tire since the tire surface must first be “broken in” for it to develop its optimal characteristics.

## Tire information

This model is equipped with tubeless tires and tire air valves.

Tires age, even if they have not been used or have only been used occasionally. Cracking of the tread and sidewall rubber, sometimes accompanied by carcass deformation, is an evidence of

ageing. Old and aged tires shall be checked by tire specialists to ascertain their suitability for further use.

EWA10462

## **WARNING**

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

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

### **Front tire:**

Size:

110/70-12 47L

Manufacturer/model:

MAXXIS/M6219Y

### **Rear tire:**

Size:

110/70-12 47L

Manufacturer/model:

MAXXIS/M6220

## **Cast wheels**

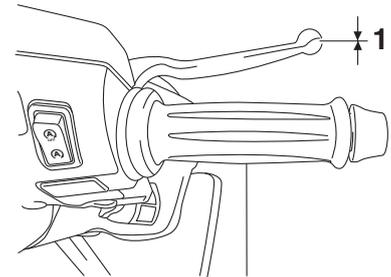
To maximize the performance, durability, and safe operation of your vehicle, note the following points regarding the specified wheels.

- 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.

EAU21963

## **Checking the front brake lever free play**

EAU49351



1. No brake lever free play

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

EWA14212

## **WARNING**

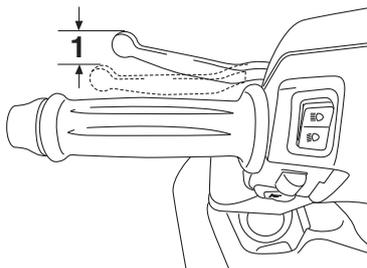
**A soft or spongy feeling in the brake lever can indicate the presence of air in the hydraulic system. If there is air in the hydraulic system, have a Yamaha dealer bleed the system before operating the vehicle. Air in the hydraulic system will diminish the**

# Periodic maintenance and adjustment

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

## Adjusting the rear brake lever free play EAU22172

Measure the rear brake lever free play as shown.

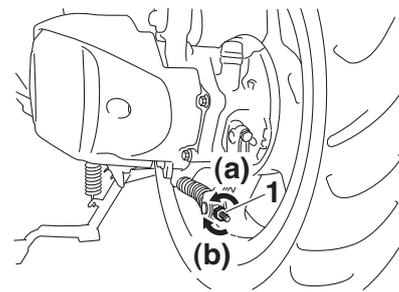


1. Rear brake lever free play

**Rear brake lever free play:**  
10.0–20.0 mm (0.39–0.79 in)

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

To increase the brake lever free play, turn the adjusting nut at the brake shoe plate in direction (a). To decrease the brake lever free play, turn the adjusting nut in direction (b).



1. Rear brake lever free play adjusting nut

EWA10651

### **! WARNING**

**If proper adjustment cannot be obtained as described, have a Yamaha dealer make this adjustment.**

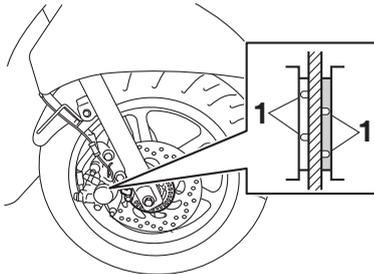
## Checking the front brake pads and rear brake shoes

EAU22382

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

### Front brake pads

EAU22433



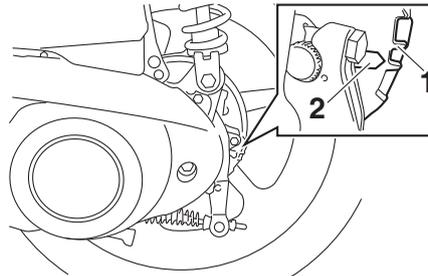
1. Brake pad wear indicator groove

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

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

### Rear brake shoes

EAU22541



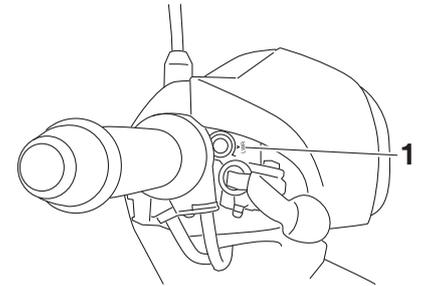
1. Brake shoe wear indicator
2. Brake shoe wear limit line

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

## Checking the brake fluid level

EAU77811

Before starting off, confirm that the brake fluid is above the minimum level mark. (Position the handlebars so the brake fluid in the reservoir is level to the ground.) Replenish the brake fluid if necessary.



1. Minimum level mark

### Specified brake fluid:

DOT 3 or 4 (LTF125-I)  
YAMAHA GENUINE BRAKE FLUID  
(DOT 4) (LTF125-A)



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

EWA18870

# Periodic maintenance and adjustment

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- **Insufficient brake fluid may allow air to enter the brake system, reducing braking performance.**
- **Do not let water enter the brake fluid reservoir when refilling. Water will significantly lower the boiling point of the fluid and may result in vapor lock.**
- **To prevent contamination, clean the reservoir and filler cap before removing. Use only fresh brake fluid from a sealed container.**
- **Use only the specified brake fluid. Use of a different brake fluid may result in a harmful chemical reaction, may cause the rubber seals to deteriorate or cause internal rusting of the brake system.**

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 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 vehicle before further operation.

EAU22724

## Changing the brake fluid

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

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

ECA17641

### **NOTICE**

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

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## Checking the V-belt

EAU0311

The V-belt must be checked and replaced by a Yamaha dealer at the intervals specified in the periodic maintenance and lubrication chart.

## Checking and lubricating the cables

EAU23098

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

### Recommended lubricant:

Yamaha cable lubricant or other suitable cable lubricant

## Checking and lubricating the throttle grip and cable

EAU49921

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.

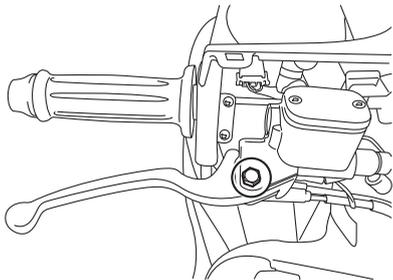
# Periodic maintenance and adjustment

## Lubricating the front and rear brake levers

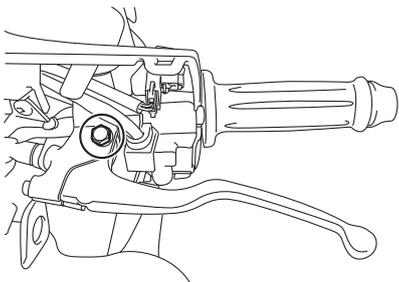
EAU43643

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

### Front brake lever



### Rear brake lever

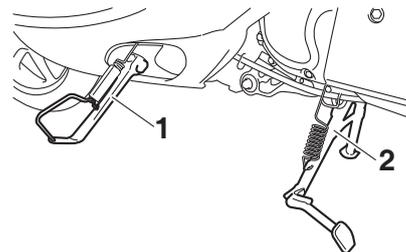


### Recommended lubricants:

- Front brake lever:
  - Silicone grease
- Rear brake lever:
  - Lithium-soap-based grease

## Checking and lubricating the centerstand and sidestand

EAU23215



1. Sidestand
2. Centerstand

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

EWA10742

### **! WARNING**

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

# Periodic maintenance and adjustment

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

EAU23273

## Checking the front fork

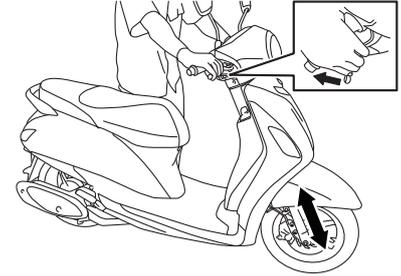
The condition and operation of the front fork must be checked as follows at the intervals specified in the periodic maintenance and lubrication chart.

### To check the condition

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

### To check the operation

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



ECA10591

### **NOTICE**

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

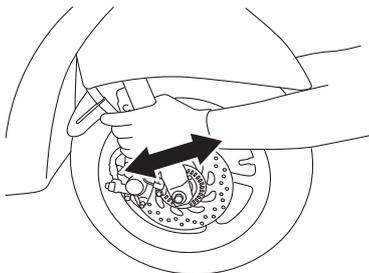
# Periodic maintenance and adjustment

EAU45512

## Checking the steering

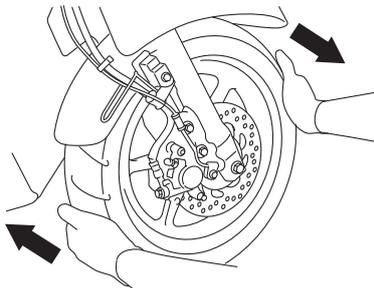
Worn or loose steering bearings may cause danger. Therefore, the operation of the steering must be checked as follows at the intervals specified in the periodic maintenance and lubrication chart.

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



EAU23292

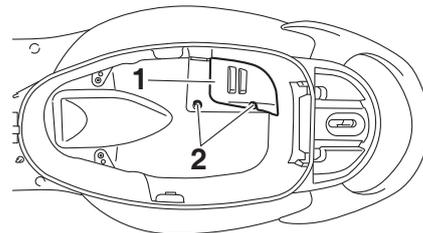
## Checking the wheel bearings



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

EAU0924

## Battery

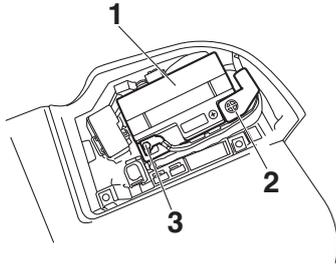


1. Battery cover
2. Screw

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.

# Periodic maintenance and adjustment

ECA16522



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

EWA10761

## **WARNING**

- **Electrolyte is poisonous and dangerous since it contains sulfuric acid, which causes severe burns. Avoid any contact with skin, eyes or clothing and always shield your eyes when working near batteries. In case of contact, administer the following FIRST AID.**
  - **EXTERNAL:** Flush with plenty of water.
  - **INTERNAL:** Drink large quantities of water or milk and immediately call a physician.

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

ECA10621

## **NOTICE**

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

### To charge the battery

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

## **NOTICE**

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

### To store the battery

1. If the vehicle will not be used for more than one month, remove the battery, fully charge it, and then place it in a cool, dry place. **NOTICE:** When removing the battery, be sure to turn the main switch off, then disconnect the negative lead before disconnecting the positive lead. [ECA16304]
2. If the battery will be stored for more than two months, check it at least once a month and fully charge it if necessary.
3. Fully charge the battery before installation. **NOTICE:** When installing the battery, be sure to turn the main switch off, then connect the positive lead before connecting the negative lead.

[ECA16842]

# Periodic maintenance and adjustment

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

ECA16531

## NOTICE

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

ECAU0051

## NOTICE

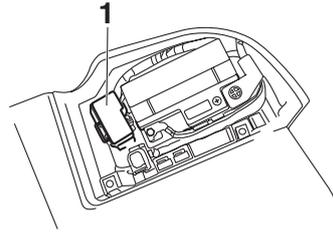
Do not ride the vehicle with the battery disconnected or with a low-charged battery. This will cause hard engine starting, decreased headlight life, and the flasher lights may not operate properly.

## Replacing the fuses

EAU66797

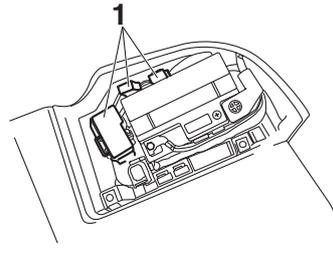
The fuse boxes, which contain the fuses for the individual circuits, are located under the seat. (See page 6-16.)

### (LTF125-I)



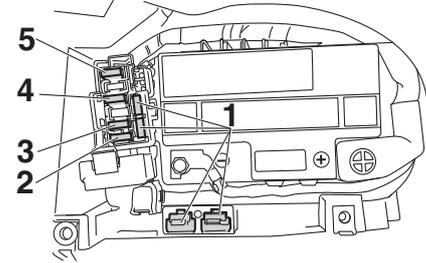
1. Fuse box

### (LTF125-A)



1. Fuse box

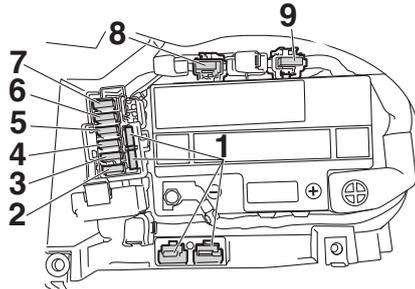
### (LTF125-I)



1. Spare fuse
2. Terminal fuse 1
3. Sub fuse
4. Answer back fuse
5. Main fuse

# Periodic maintenance and adjustment

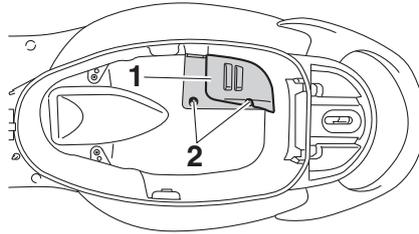
(LTF125-A)



1. Spare fuse
2. Terminal fuse 1
3. Sub fuse
4. ABS fuse
5. ABS motor fuse
6. ABS solenoid fuse
7. Main fuse
8. Smart key system fuse 1
9. Smart key system fuse 2

If a fuse is blown, replace it as follows.

1. Turn off the electrical circuit in question, and then turn off the main switch.
2. Open the seat. (See page 6-16.)
3. Remove the battery cover by removing the screws.



1. Battery cover
2. Screw

4. Remove the blown fuse, and then install a new fuse of the specified amperage. **WARNING! Do not use a fuse of a higher amperage rating than recommended to avoid causing extensive damage to the electrical system and possibly a fire.** [EWA15132]

## Specified fuses:

- Main fuse:  
15.0 A
- Sub fuse:  
7.5 A
- Terminal fuse 1:  
2.0 A
- Smart key system fuse:  
7.5 A (LTF125-A)
- Smart key system fuse 2:  
7.5 A (LTF125-A)
- ABS motor fuse:  
10.0 A (LTF125-A)
- ABS solenoid fuse:  
7.5 A (LTF125-A)
- ABS control unit fuse:  
2.0 A (LTF125-A)
- Answer back fuse:  
7.5 A (LTF125-I)

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

## TIP

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

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

# Periodic maintenance and adjustment

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## Headlight

EAU62850

This model is equipped with an LED-type headlight.

If a headlight does not come on, have a Yamaha dealer check its electrical circuit.

ECA16581

### **NOTICE**

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

---

## Auxiliary light

EAU44941

This model is equipped with an LED-type auxiliary light.

If the auxiliary light does not come on, have a Yamaha dealer check it.

## Tail/brake light

EAU24182

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.

## Front turn signal light

EAU39881

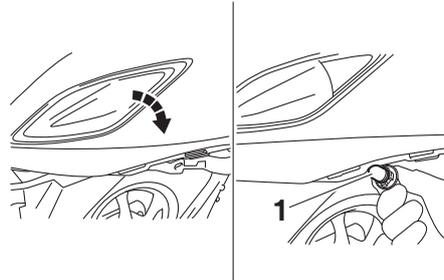
If a front turn signal light does not come on, have a Yamaha dealer check its electrical circuit or replace the bulb.

## Replacing a rear turn signal light bulb

EAU0780

ECAU0081

1. Remove the rear panel by removing the screws.
2. Remove the turn signal light bulb socket (together with the bulb) by turning it counterclockwise.



1. Turn signal light bulb

3. Remove the burnt-out bulb by pulling it out.
4. Insert a new bulb into the socket.
5. Install the socket (together with the bulb) by turning it clockwise.
6. Install the rear panel by installing the screws.

### NOTICE

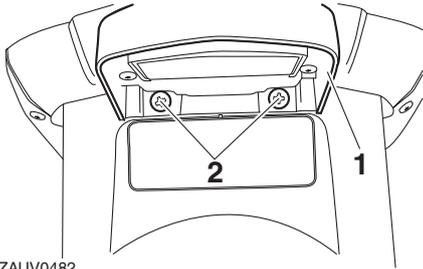
If a turn signal light bulb of different wattage than recommended is used, the turn signal light flashing may be affected.

# Periodic maintenance and adjustment

## Replacing the license plate light bulb

EAU0271

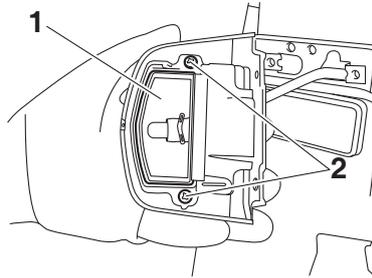
1. Remove the license plate unit by removing the screws.



ZAU0482

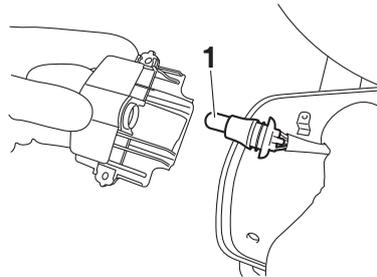
1. License plate light unit
2. Screw

2. Remove the license plate light lens by removing the screws.



1. License plate light lens
2. Screw

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



1. License plate light bulb

4. Insert a new bulb into the socket.
5. Install the license plate light lens by installing the screws.

6. Install the license plate light cover by installing the screws.

## Troubleshooting

EAU60701

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

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

EWA15142



### WARNING

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

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

## Smart key system troubleshooting (LTF125-A)

EAU76551

Please check the following items when the smart key system does not work.

- Is the smart key turned on? (See page 4-5.)
- Is the smart key battery discharged? (See page 4-6.)
- Is the smart key battery installed correctly? (See page 4-6.)
- Is the smart key being used in a location with strong radio waves or other electromagnetic noise? (See page 4-1.)
- Are you using the smart key that is registered to the vehicle?
- Is the vehicle battery discharged? When the vehicle battery is discharged, the smart key system will not operate. Please have the vehicle battery charged or replaced. (See page 9-25.)

If the smart key system does not work after checking the above items, have a Yamaha dealer check the smart key system.

## TIP

See Emergency mode on page 9-35 for information on starting the engine without the smart key.

EAU76843

## Stop and Start System troubleshooting

If a problem occurs, check the following before taking the vehicle to a Yamaha dealer.

## The Stop and Start System indicator light does not come on.

1. Is the main switch turned on?
2. Is the Stop and Start System switch set to “**A**”?
3. Was the engine warmed up sufficiently after starting?
4. After the engine was warmed up, was the engine left idling for a certain period of time?
5. Did the vehicle travel at a speed of 10 km/h or higher?

# Periodic maintenance and adjustment

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Even if the preceding conditions are met, the Stop and Start System may not activate in order to preserve battery power. In this case, continue to drive the vehicle.

In addition, the Stop and Start System indicator light does not come on if the engine trouble warning light is on.

If the Stop and Start System indicator light still does not come on after you checked the preceding conditions, have a Yamaha dealer check the vehicle as soon as possible.

## **The Stop and Start System indicator light comes on, but the engine does not stop automatically.**

1. Was the vehicle stopped completely?

The engine may not stop automatically until the vehicle is stopped for a certain period of time. Try bringing the vehicle to a complete stop.

2. Is the throttle grip turned?

The engine does not stop automatically if the throttle grip is not in the fully closed position.

Turn the throttle grip to the fully closed position.

If the engine still does not stop automatically after you checked the preceding conditions, have a Yamaha dealer check the vehicle as soon as possible.

## **After the engine was stopped by the Stop and Start System, the engine does not restart even if the throttle grip is turned.**

1. Is the Stop and Start System switch set to “”?

If the Stop and Start System switch is set to “” while the Stop and Start System is activated, the Stop and Start System will be turned off.

2. Was the sidestand operated?

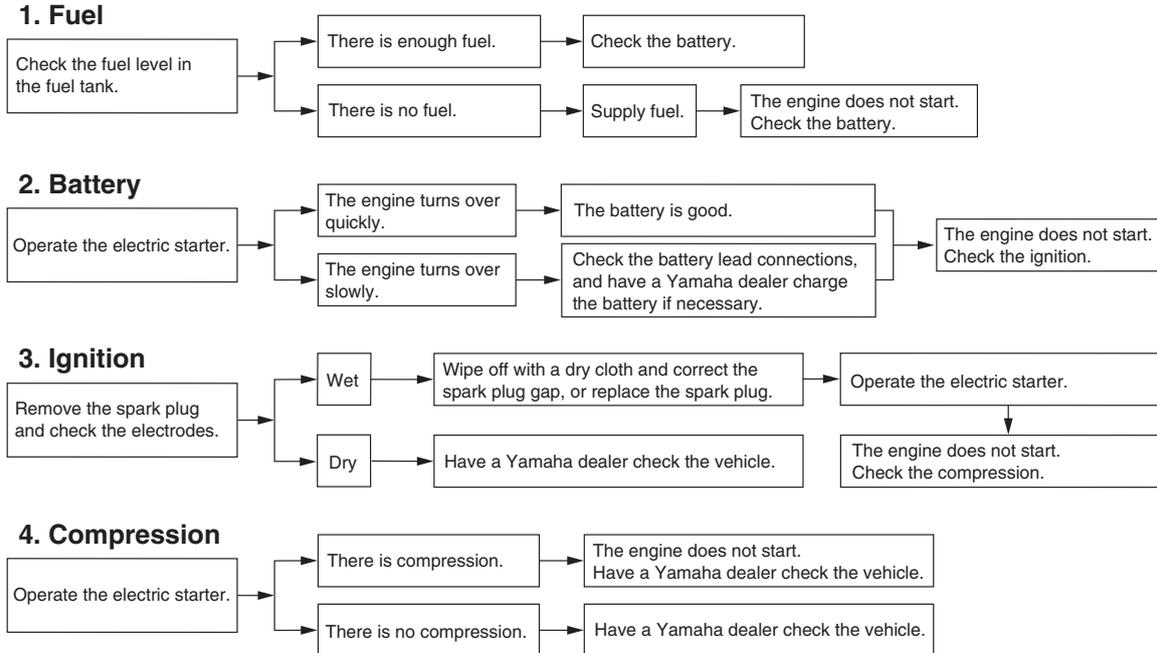
When the sidestand is lowered, the Stop and Start System is deactivated.

3. Was the engine left stopped by the Stop and Start System for a long period of time?

If the engine is left stopped by the Stop and Start System for a long period of time, the battery could become discharged.

If the engine still does not restart after you checked the preceding conditions, have a Yamaha dealer check the vehicle as soon as possible.

## Troubleshooting chart



# Periodic maintenance and adjustment

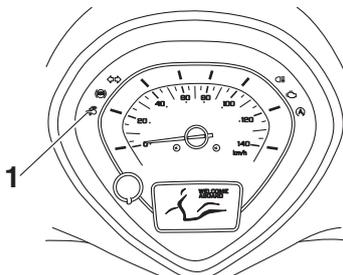
## Emergency mode (LTF125-A)

EAU76561

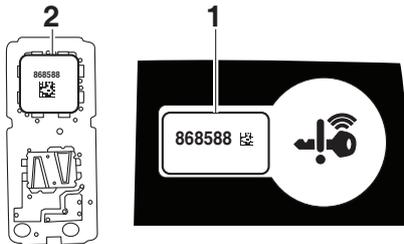
When the smart key is lost or damaged, or its battery has discharged, the vehicle can still be turned on and the engine started. You will need the smart key system identification number.

### To operate the vehicle in emergency mode

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



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



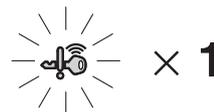
1. Identification number card
2. Identification number
4. Inputting the identification number is done by counting the number of flashes of the smart key system indicator light.

For example, if the identification number is 123456:

Push and hold the knob.



The smart key system indicator light will start to flash.



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



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



Push and hold the knob again.



# Periodic maintenance and adjustment

---

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



The second digit has been set as “2”.



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

## TIP

---

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

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

- The identification number is not entered correctly.

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

# Scooter care and storage

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## Matte color caution

EAU37834

ECA15193

### **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.

---

## Care

EAU0362

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 prod-

ucts onto seals, gaskets and wheel axles. Always rinse the dirt and degreaser off with water.

## Cleaning

ECA10784

### **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 swing-arm 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 wind-

shield. 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 or near the sea

Since sea salt is extremely corrosive carry out the following steps after each ride in the rain or near the sea.

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.** [ECA10792]

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 cleaner 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.

# Scooter care and storage

---

EWA10943

## 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.

ECAU0022

## NOTICE

- Apply spray oil and wax sparingly and make sure to wipe off any excess.
- Never apply oil or wax to any rubber parts, plastic parts or headlight, taillight and meter lenses, 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.

EAU36564

## 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.

ECA10821

## 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 cylinder, piston rings, etc. from corrosion.
    - a. Remove the spark plug cap and spark plug.
    - b. Pour a teaspoonful of engine oil into the spark plug bore.
    - c. Install the spark plug cap onto the spark plug, and then place the spark plug on the cylinder head so that the electrodes are grounded. (This will limit sparking during the next step.)
    - d. Turn the engine over several times with the starter. (This will coat the cylinder wall with oil.)
    - e. Remove the spark plug cap from the spark plug, and then install the spark plug and the spark plug cap. **WARNING! To prevent damage or injury from sparking, make sure to ground the spark plug electrodes while turning the engine over.** [EWA10952]
  4. Lubricate all control cables and the pivoting points of all levers and pedals as well as of the side-stand/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 9-25.
- TIP** \_\_\_\_\_  
Make any necessary repairs before storing the scooter.  
\_\_\_\_\_

# Specifications

## Dimensions:

- Overall length:  
1820 mm (71.7 in)
- Overall width:  
685 mm (27.0 in)
- Overall height:  
1150 mm (45.3 in)
- Seat height:  
790 mm (31.1 in)
- Wheelbase:  
1280 mm (50.4 in)
- Ground clearance:  
125 mm (4.92 in)
- Minimum turning radius:  
1.9 m (6.23 ft)

## Weight:

- Curb weight:  
101 kg (223 lb) (LTF125-I)  
102 kg (225 lb) (LTF125-A)

## Engine:

- Combustion cycle:  
4-stroke
- Cooling system:  
Air cooled
- Valve train:  
SOHC
- Number of cylinders:  
Single cylinder
- Displacement:  
125 cm<sup>3</sup>
- Bore × stroke:  
52.4 × 57.9 mm (2.06 × 2.28 in)
- Compression ratio:  
11.0 : 1

## Starting system:

- Electric starter (LTF125-A)
- Electric starter and kickstarter (LTF125-I)

## Lubrication system:

- Wet sump

## Engine oil:

- Recommended brand:  
YAMALUBE
- SAE viscosity grades:  
10W-40
- Recommended engine oil grade:  
API service SG type or higher, JASO  
standard MA or MB
- Engine oil quantity:  
Oil change:  
0.80 L (0.85 US qt, 0.70 Imp.qt)  
With oil filter removal:  
0.80 L (0.85 US qt, 0.70 Imp.qt)

## Final transmission oil:

- Type:  
Motor oil SAE 10W-30 type SE or higher or  
Gear oil SAE 85W GL-3
- Quantity:  
0.10 L (0.11 US qt, 0.09 Imp.qt)

## Air filter:

- Air filter element:  
Oil-coated paper element

## Fuel:

- Recommended fuel:  
Regular unleaded gasoline (Gasohol [E10]  
acceptable)
- Fuel tank capacity:  
4.4 L (1.2 US gal, 1.0 Imp.gal)

## Fuel injection:

- Throttle body:  
ID mark:  
B8A1\_00

## Spark plug(s):

- Manufacturer/model:  
NGK/CR6HSA
- Spark plug gap:  
0.6–0.7 mm (0.024–0.028 in)

## Clutch:

- Clutch type:  
Dry, centrifugal, shoe

## Drivetrain:

- Primary reduction ratio:  
1.000
- Final drive:  
Gear
- Secondary reduction ratio:  
7.773 (50/17 × 37/14)
- Transmission type:  
V-belt automatic

## Chassis:

- Frame type:  
Underbone
- Caster angle:  
26.7 °
- Trail:  
74 mm (2.9 in)

## Front tire:

- Type:  
Tubeless
- Size:  
110/70-12 47L

Manufacturer/model:  
MAXXIS/M6219Y

## Rear tire:

Type:  
Tubeless

Size:  
110/70-12 47L

Manufacturer/model:  
MAXXIS/M6220

## Loading:

Maximum load:  
160 kg (353 lb)  
(Total weight of rider, passenger, cargo  
and accessories)

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

1 person:  
Front:  
200 kPa (2.00 kgf/cm<sup>2</sup>, 29 psi)  
Rear:  
225 kPa (2.25 kgf/cm<sup>2</sup>, 33 psi)

2 persons:  
Front:  
200 kPa (2.00 kgf/cm<sup>2</sup>, 29 psi)  
Rear:  
225 kPa (2.25 kgf/cm<sup>2</sup>, 33 psi)

## Front wheel:

Wheel type:  
Cast wheel  
Rim size:  
12 x MT2.50

## Rear wheel:

Wheel type:  
Cast wheel

Rim size:  
12 x MT2.75

## Front brake:

Type:  
Hydraulic single disc brake  
Specified brake fluid:  
DOT 3 or 4 (LTF125-I)  
YAMAHA GENUINE BRAKE FLUID (DOT 4)  
(LTF125-A)

## Rear brake:

Type:  
Mechanical leading trailing drum brake

## Front suspension:

Type:  
Telescopic fork  
Spring:  
Coil spring  
Shock absorber:  
Hydraulic damper  
Wheel travel:  
90 mm (3.5 in)

## Rear suspension:

Type:  
Swingarm (link suspension)  
Spring:  
Coil spring  
Shock absorber:  
Hydraulic damper  
Wheel travel:  
85 mm (3.3 in)

## Electrical system:

System voltage:  
12 V

Ignition system:  
TCI

Charging system:  
Starter generator

## Battery:

Model:  
YTZ6V (LTF125-I)  
YTZ7V (LTF125-A)  
Voltage, capacity:  
12 V, 5.0 Ah (10 HR) (LTF125-I)  
12 V, 6.0 Ah (10 HR) (LTF125-A)

## Bulb wattage x quantity:

Headlight:  
LED  
Bike/tail light:  
LED  
Front turn signal light:  
10.0 W x 2  
Rear turn signal light:  
10.0 W x 2  
Auxiliary light:  
LED  
License plate light:  
3.4 W x 1  
Meter lighting:  
LED  
Meter lighting (fuel meter):  
LED  
High beam indicator light:  
LED  
Turn signal indicator light:  
LED  
Engine trouble warning light:  
LED

# Specifications

---

ABS warning light:

LED (LTF125-A)

Smart key system indicator light:

LED (LTF125-A)

Stop and Start System indicator light:

LED

## **Fuse(s):**

Main fuse:

15.0 A

Sub fuse:

7.5 A

Terminal fuse 1:

2.0 A

ABS control unit fuse:

2.0 A (LTF125-A)

ABS motor fuse:

10.0 A (LTF125-A)

ABS solenoid fuse:

7.5 A (LTF125-A)

Answer back fuse:

7.5 A (LTF125-I)

Smart key system fuse:

7.5 A (LTF125-A)

Smart key system fuse 2:

7.5 A (LTF125-A)

## Identification numbers

EAU26365

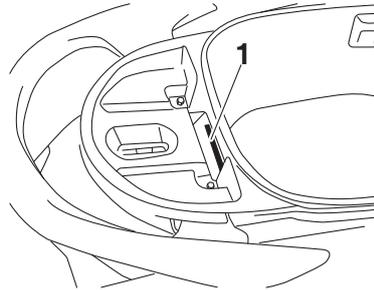
Record the vehicle identification number and the engine serial number in the spaces provided below for assistance when ordering spare parts from a Yamaha dealer or for reference in case the vehicle is stolen.

VEHICLE IDENTIFICATION NUMBER:

ENGINE SERIAL NUMBER:

## Vehicle identification number

EAU62971



1. Vehicle identification number

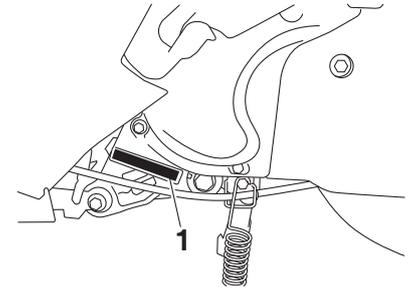
The vehicle identification number is stamped into the frame under the passenger seat.

### TIP

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

## Engine serial number

EAU26442



1. Engine serial number

The engine serial number is stamped into the crankcase.

- A**
- ABS (for ABS models).....6-12
  - ABS warning light (for ABS models).....6-5
  - Acceleration and deceleration .....8-3
  - Activating the Stop and Start System ....5-1
  - Air filter and V-belt case
    - air filter elements .....9-13
  - Auxiliary DC connector .....6-19
  - Auxiliary DC jack.....6-22
  - Auxiliary light.....9-29
- B**
- Battery .....9-25
  - Brake fluid, changing.....9-21
  - Brake fluid level, checking.....9-20
  - Brake lever.....6-11
  - Brake lever, rear.....6-12
  - Brake levers, lubricating .....9-23
  - Brake pads and shoes, checking .....9-20
  - Braking.....8-3
- C**
- Cables, checking and lubricating .....9-22
  - Care .....10-1
  - Catalytic converter.....6-15
  - Centerstand and sidestand,
    - checking and lubricating .....9-23
- D**
- Dimmer switch .....6-11
- E**
- Emergency mode (LTF125-A).....9-35
  - Engine break-in.....8-4
  - Engine oil and oil strainer.....9-10
  - Engine serial number .....12-1
  - Engine trouble warning light .....6-5
- F**
- Final transmission oil .....9-12
  - Front brake lever free play,
    - checking.....9-18
  - Front fork, checking .....9-24
  - Front turn signal light.....9-30
  - Fuel.....6-14
  - Fuel consumption, tips for reducing .....8-3
  - Fuel tank cap.....6-13
  - Fuses, replacing .....9-27
- H**
- Handlebar switches.....6-10
  - Headlight .....9-29
  - Helmet holders .....6-17
  - Helmets .....2-6
  - High beam indicator light .....6-5
  - Horn switch .....6-11
- I**
- Identification numbers.....12-1
  - Ignition circuit cut-off system.....6-20
  - Indicator lights and warning lights .....6-4
- K**
- Key, handling of smart and
    - mechanical keys.....4-3
  - Keyhole shutter .....6-4
  - Kickstarter .....6-16
- L**
- Labels, location .....1-1
  - License plate light bulb, replacing.....9-31
  - Luggage hook .....6-19
- M**
- Main switch .....4-7
  - Main switch/steering lock (LTF125-I) .....6-3
- Maintenance and lubrication,
  - periodic.....9-3
- Maintenance, emission
  - control system .....9-2
- Matte color, caution .....10-1
- Multi-function meter unit.....6-6
- O**
- Operating range of the
    - smart key system.....4-2
- P**
- Panels, removing and installing .....9-8
  - Parking.....8-4
  - Part locations .....3-1
  - Passenger footrest.....6-17
  - Precautions when using the
    - Stop and Start System .....5-3
- R**
- Rear brake lever free play, adjusting ....9-19
  - Remote control unit (LTF125-I) .....6-1
- S**
- Safe-riding points.....2-5
  - Safety information.....2-1
  - Seat.....6-16
  - Sidestand .....6-20
  - Smart key.....4-5
  - Smart key battery, replacing.....4-6
  - Smart key system .....4-1
  - Smart key system indicator light.....6-6
  - Smart key system, troubleshooting .....9-32
  - Spark plug, checking .....9-9
  - Specifications .....11-1
  - Starting off .....8-2
  - Starting the engine.....8-1
  - Start switch .....6-11

Steering, checking ..... 9-25  
Stop and Start System ..... 5-1  
Stop and Start System indicator light .... 6-6  
Stop and Start System operation..... 5-1  
Stop and Start System switch..... 6-11  
Stop and Start System  
    troubleshooting ..... 9-32  
Storage ..... 10-3  
Storage compartments..... 6-18

**T**

Tail/brake light ..... 9-29  
Throttle grip and cable,  
    checking and lubricating ..... 9-22  
Throttle grip free play, adjusting..... 9-16  
Tires ..... 9-16  
Tool kit ..... 9-1  
Troubleshooting..... 9-32  
Troubleshooting chart ..... 9-34  
Turn signal indicator lights ..... 6-5  
Turn signal light bulb (rear),  
    replacing..... 9-30  
Turn signal switch..... 6-11

**V**

Valve clearance ..... 9-16  
V-belt, checking..... 9-22  
Vehicle identification number ..... 12-1

**W**

Wheel bearings, checking ..... 9-25  
Wheels ..... 9-18



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