



OWNER'S MANUAL

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



MOTORCYCLE

YP125RA (XMAX 125)

BMJ-F8199-E0

Safety information	1
Description	2
Smart key system	3
Stop and start system	4
Special features	5
Instrument and control functions	6
For your safety – pre-operation checks	7
Operation and important riding points	8
Periodic maintenance and adjustment	9
Scooter care and storage	10
Specifications	11
Consumer information	12
Index	13

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

For Europe

Declaration of Conformity:

Hereby, MITSUBISHI ELECTRIC CORPORATION, HIMEJI WORKS, declares that the radio equipment type, Smart Keyless System (SKEA7E-04, SKEA7E-03) is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address:

<http://www.mitsubishielectric.com/bu/automotive/doc/re.html>

Smart Unit: SKEA7E-04

Operation frequency: 125 kHz

Maximum output power: 117 dBuV/m at 10 meters

Hand Unit: SKEA7E-03

Operation frequency: 433.92 MHz

Maximum output power: 10 mW

Manufacturer:

MITSUBISHI ELECTRIC CORPORATION, HIMEJI WORKS

840, Chiyoda-machi, Himeji, Hyogo 670-8677, Japan

Importer:

YAMAHA MOTOR EUROPE N.V.

Koolhovenlaan 101, 1119 NC Schiphol-Rijk, 1117 ZN, Schiphol, the Netherlands

For UK**Declaration of Conformity:**

Hereby, MITSUBISHI ELECTRIC CORPORATION, HIMEJI WORKS, declares that the radio equipment type, Smart Keyless System (SKEA7E-04, SKEA7E-03) is in compliance with the Radio Equipment Regulations 2017.

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<http://www.mitsubishielectric.com/bu/automotive/doc/ukgb.html>

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YAMAHA MOTOR EUROPE N.V., BRANCH UK

Units A2-A3, Kingswey Business Park, Forsyth Road, Woking, Surrey. GU21 5SA. United Kingdom.

For Europe

Declaration of Conformity:

Hereby, YAMAHA MOTOR CO., LTD declares that the radio equipment type, Communication Control Unit, Y08U-A00 is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address:

https://global.yamaha-motor.com/eu_doc/

Frequency band: 2402~2480 MHz

The maximum radio frequency power:

Bluetooth 4.2 2.75 dBm 1.88 mW

Bluetooth 5.0 2.59 dBm 1.82 mW

Manufacturer:

PT Chao Long Motor Parts Indonesia

JL.MERANTI 1 BLOK, L2 NO. 5-6 DELTA SILICON INDUSTRIAL

PARK LIPPO CIKARANG BEKASI 17550, INDONESIA

Importer:

YAMAHA MOTOR EUROPE N.V.

Koolhovenlaan 101, 1119 NC Schiphol-Rijk, 1117 ZN, Schiphol, the Netherlands

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Units A2-A3, Kingswey Business Park, Forsyth Road, Woking, Surrey. GU21 5SA. United Kingdom.

Welcome to the Yamaha world of motorcycling!

As the owner of the YP125RA, 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 YP125RA. 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.



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

Important manual information

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

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

*Product and specifications are subject to change without notice.

EAUM1013

**YP125RA
OWNER'S MANUAL
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Table of contents

Safety information	1-1	Front brake lever.....	6-10	Periodic maintenance and adjustment	9-1
Further safe-riding points.....	1-5	Rear brake lever.....	6-10	Tool kit.....	9-2
Description	2-1	ABS.....	6-10	Periodic maintenance chart for the emission control system.....	9-3
Left view.....	2-1	Traction control system.....	6-11	General maintenance and lubrication chart.....	9-4
Right view.....	2-2	Fuel tank cap.....	6-13	Removing and installing the panel.....	9-8
Controls and instruments.....	2-3	Fuel.....	6-14	Checking the spark plug.....	9-8
Smart key system	3-1	Fuel tank overflow hose.....	6-15	Canister.....	9-9
Smart key system.....	3-1	Catalytic converter.....	6-16	Engine oil.....	9-10
Operating range of the smart key system.....	3-2	Storage compartments.....	6-16	Why Yamalube.....	9-11
Handling of the smart key and mechanical keys.....	3-3	Windscreen.....	6-18	Final transmission oil.....	9-11
Smart key.....	3-5	Handlebar position.....	6-20	Coolant.....	9-11
Replacing the smart key battery.....	3-6	Adjusting the shock absorber assemblies.....	6-20	Air filter and V-belt case air filter elements.....	9-12
Main switch.....	3-7	Power outlet.....	6-21	Checking the throttle grip free play.....	9-15
Stop and Start System	4-1	DC connectors.....	6-21	Valve clearance.....	9-15
Stop and Start System.....	4-1	Sidestand.....	6-22	Tires.....	9-15
Stop and Start System operation....	4-1	Ignition circuit cut-off system.....	6-22	Cast wheels.....	9-17
Special features	5-1	For your safety – pre-operation checks	7-1	Checking the front and rear brake lever free play.....	9-17
CCU (Communication Control Unit).....	5-1	Operation and important riding points	8-1	Checking the front and rear brake pads.....	9-18
Instrument and control functions	6-1	Engine break-in.....	8-1	Checking the brake fluid level.....	9-19
Indicator lights and warning lights.....	6-1	Starting the engine.....	8-2	Changing the brake fluid.....	9-20
Display screen.....	6-3	Starting off.....	8-3	Checking the V-belt.....	9-20
Handlebar switches.....	6-8	Acceleration and deceleration.....	8-3	Checking and lubricating the cables.....	9-21
		Braking.....	8-4		
		Tips for reducing fuel consumption.....	8-4		
		Parking.....	8-5		

Table of contents

Checking and lubricating the throttle grip and cable.....	9-21
Lubricating the front and rear brake levers.....	9-21
Checking and lubricating the centerstand and sidestand	9-22
Checking the front fork.....	9-23
Checking the steering	9-23
Checking the wheel bearings	9-24
Battery	9-24
Replacing the fuses.....	9-25
Vehicle lights	9-27
Replacing the license plate light bulb	9-27
Troubleshooting	9-28
Troubleshooting chart	9-30
Emergency mode	9-32
Scooter care and storage	10-1
Matte color caution	10-1
Care.....	10-1
Storage.....	10-4
Specifications.....	11-1
Consumer information	12-1
Identification numbers.....	12-1
Diagnostic connector	12-2
Vehicle data recording	12-2
Index	13-1

Be a Responsible Owner

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

Scooters are single-track vehicles.

Their safe use and operation are dependent upon the use of proper riding techniques as well as the expertise of the operator. Every operator should know the following requirements before riding this scooter.

He or she should:

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

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

Safe Riding

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

1

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:

163 kg (360 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

1

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 9-15 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.

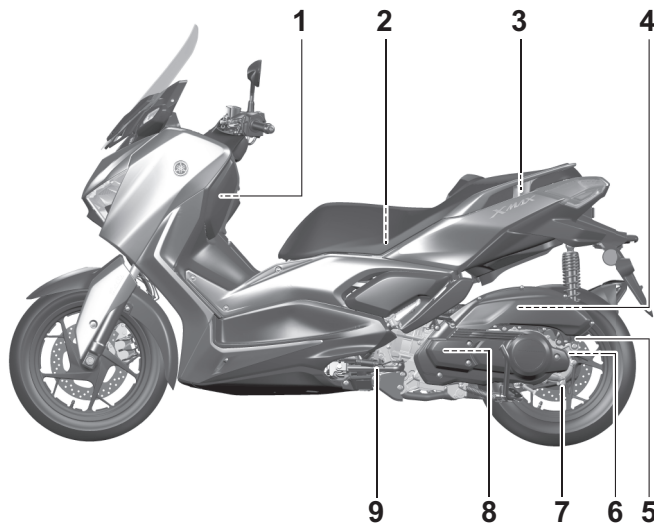
- Always wear a helmet, gloves, trousers (tapered around the cuff and ankle so they do not flap), and a brightly colored jacket.
- Do not carry too much luggage on the scooter. An overloaded scooter is unstable. Use a strong cord to secure any luggage to the carrier (if equipped). A loose load will affect the stability of the scooter and could divert your attention from the road. (See page 1-3.)

Description

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Left view

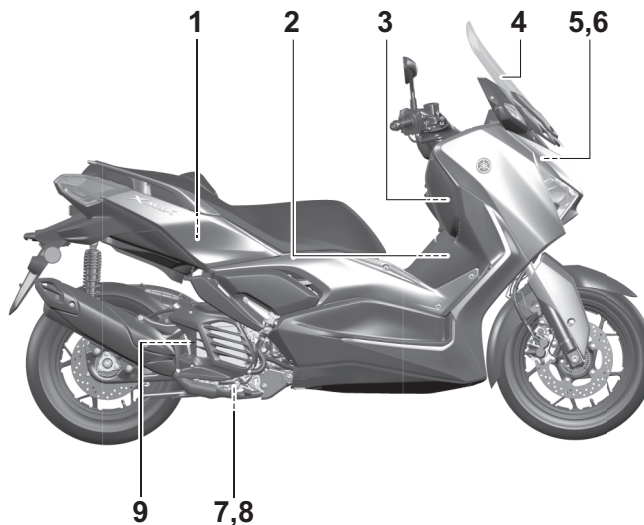
2



1. Storage compartment A (page 6-16)
2. Tool kit (page 9-2)
3. Grab bar (page 8-3)
4. Air filter element (page 9-12)
5. Shock absorber assembly spring preload adjusting ring (page 6-20)
6. Final transmission oil filler cap (page 9-11)
7. Final transmission oil drain bolt (page 9-11)
8. V-belt case air filter element (page 9-12)

9. Sidestand (page 6-22)

Right view

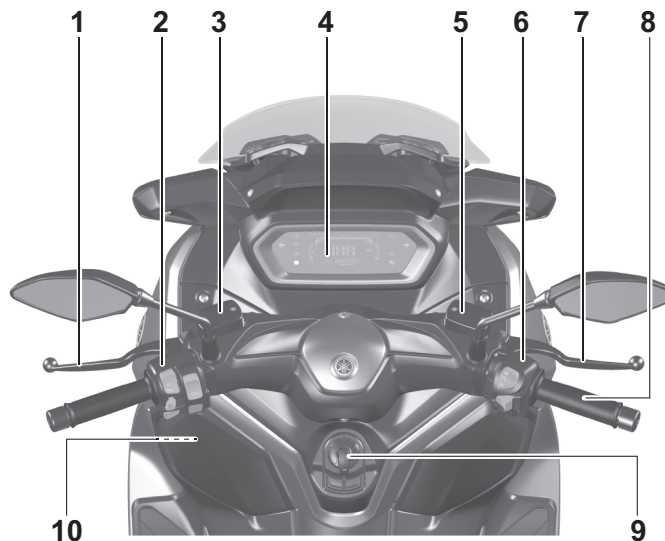
2

- 1. Rear storage compartment (page 6-16)
- 2. Fuel tank cap (page 6-13)
- 3. Storage compartment B (page 6-16)
- 4. Windscreen (page 6-18/9-25)
- 5. Battery (page 9-24)
- 6. Fuses (page 9-25)
- 7. Engine oil drain bolt A (page 9-10)
- 8. Engine oil drain bolt B (page 9-10)

- 9. Engine oil filler cap (page 9-10)

Controls and instruments

2

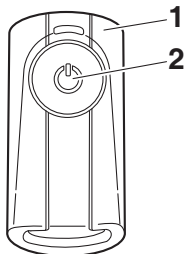


1. Rear brake lever (page 6-10)
2. Left handlebar switches (page 6-8)
3. Rear brake fluid reservoir (page 9-19)
4. Multi-function meter unit panel
5. Front brake fluid reservoir (page 9-19)
6. Right handlebar switches (page 6-8)
7. Front brake lever (page 6-10)
8. Throttle grip (page 9-15)

9. Main switch (page 3-7)
10. Power outlet (page 6-21)

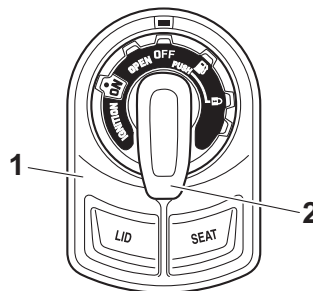
Smart key system

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 3-5.)



1. Smart key
2. Smart key button

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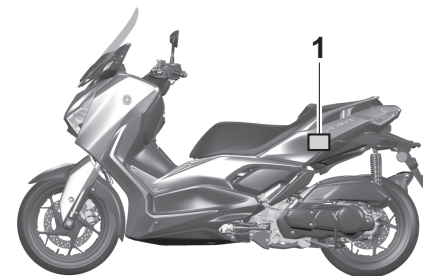


1. Main switch
2. Main switch knob

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

3

- 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 9-32.)

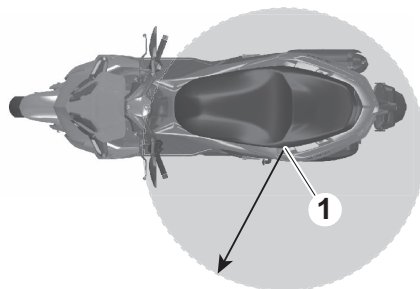
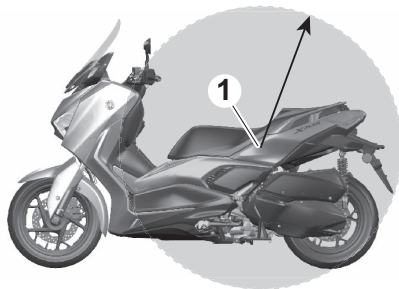
TIP

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

EAUM3960

The operating range of the smart key system is about 80 cm (31.5 in) from the antenna.



1. Vehicle mounted antenna

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 3-5 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.

- 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.

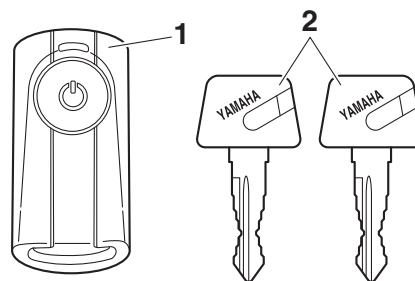
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WARNING

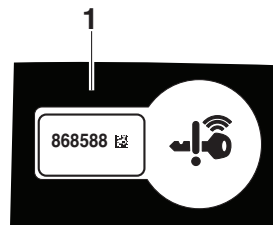
- The smart key should be carried with you. Do not store it on the vehicle.
- When the smart key is within operating range, exercise due care because other people not carrying the smart key can start the engine and operate the vehicle.

Handling of the smart key and mechanical keys

EAU78624



1. Smart key
2. Mechanical key



1. Identification number card

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.

If the vehicle battery is discharged, the mechanical key can be used to open the seat. **Carry one mechanical key in addition to the smart key.**

If the smart key is lost or the smart key battery has discharged, the identification number can be used to operate the vehicle in emergency mode. (See page 9-32.) **Write down the identification number in case of emergency.**

If the smart key is lost and the smart key system identification number is unknown, the entire smart key system will

Smart key system

need to be replaced at considerable cost. **Keep the identification number card in a safe place.**

ECA21573

NOTICE

3

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

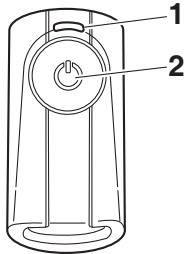
- The smart key battery life is approximately two years, but this may vary according to operating conditions.
- Replace the smart key battery when the smart key system indicator light flashes for 20 seconds when the vehicle is turned on, or when the smart key indicator light does not come on when the smart key button is pushed. (See page 3-6.) 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.

Smart key

EAU76474



1. Smart key indicator light
2. Smart key button

WARNING

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

EWA17952

To turn the smart key on or off

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

To check whether the smart key is turned on or off

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

If the smart key indicator light:

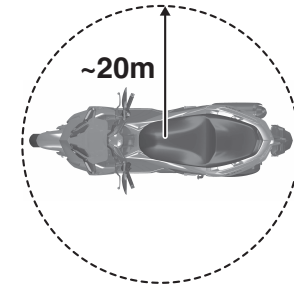
- Comes on quickly for 0.1 seconds: The smart key is turned on.
- Comes on slowly for 0.5 seconds: The smart key is turned off.

Remote answer-back function

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

Operating range of the answer-back function

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



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

To turn the answer-back beeper on or off

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

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

Smart key system

3

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

If the beeper:

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

Replacing the smart key battery

EAU98980

Have a Yamaha dealer 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 or its operating range is very short.



1. Smart key system indicator light “”

Specified battery:
CR2025

EWA20632



Danger of explosion if battery is incorrectly replaced

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

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

Do not ingest the battery, Chemical Burn Hazard

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

internal burns in just 2 hours and can lead to death. Keep new and used batteries away from children.

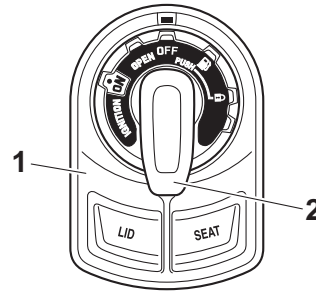
- If the battery compartment does not close securely, stop using the product and keep it away from children.
- If you think batteries might have been swallowed or placed inside any part of the body, seek immediate medical action.

The caution mark of ISO 7000-0434 is located on the case.

 : This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Main switch

EAU76893



1. Main switch
2. Main switch knob

ZAUM1816



1. Smart key system indicator light “”

The main switch is used to turn the vehicle power ON/OFF, lock/unlock the steering, and open the seat, fuel tank lid and storage compartment A. 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 beyond normal use. Otherwise, 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 before operating the main switch again.

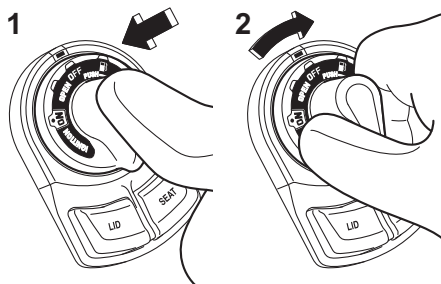
The main switch positions are described below.

Smart key system

3

ON

EAU76502



1. Push.
2. Turn.

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

To turn the vehicle power on

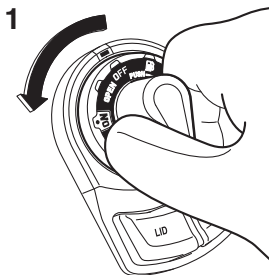
1. Turn the smart key on and bring it within operating range.
2. Push the main switch knob and the smart key indicator light will come on for approximately 4 seconds.
3. While the smart key system indicator light is on, turn the main switch to "ON". All of the turn signal lights will flash twice and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

TIP

- If the vehicle battery voltage is low, the turn signal lights will not flash.
- See "Emergency mode" on page 9-32 for information on turning the vehicle power on without the smart key.

OFF

EAU76511



ZALM1472

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.

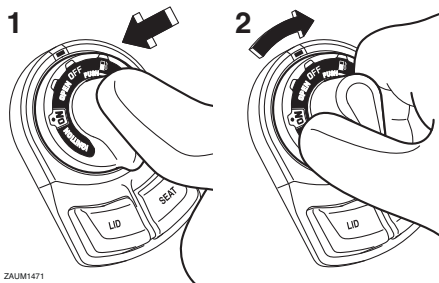
- During this 30 seconds, the main switch can be freely operated.
- After 30 seconds, the vehicle power will turn off automatically.
- To turn the vehicle power off immediately, push the main switch knob four times within 2 seconds.

OPEN (open)

EAU79042

Power is supplied to the main switch. The seat and storage compartment A can be opened.

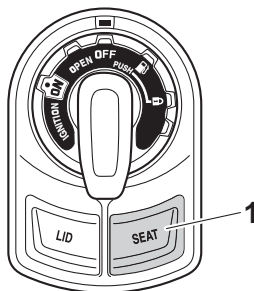
To open the seat and storage compartment A



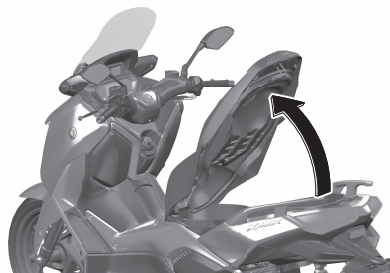
ZAM11471

1. Push.
2. Turn.

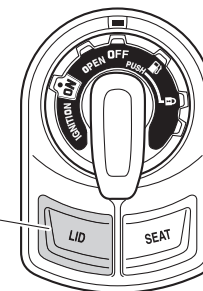
1. With the smart key turned on and within operating range, push the main switch knob.
2. While the smart key system indicator light is on, turn the main switch to "OPEN".
3. To open the seat, push the "SEAT" button, and then lift the rear of the seat.



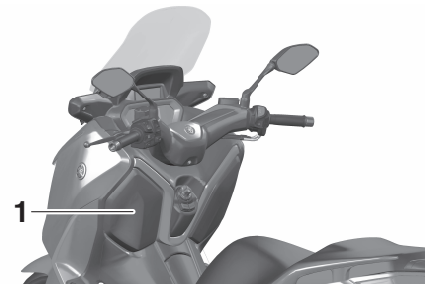
1. "SEAT" button



4. To open storage compartment A, push the "LID" button.



1. "LID" button



1. Storage compartment A

TIP _____
Make sure that the seat and storage compartment are securely closed before starting off.

Smart key system

3

Open position reminder

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

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

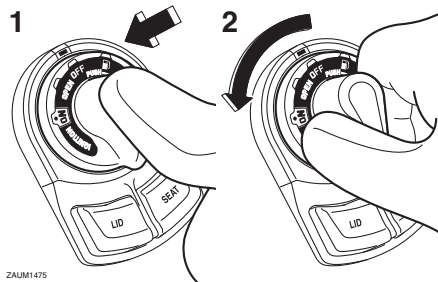
If the beeper sounds after 3 minutes, turn the main switch to “OFF” or “”. If the beeper sounds because the smart key was turned off or moved out of range, turn the smart key on and walk back into range.

TIP

- The beeper will turn off after 1 minute.
- The seat can also be opened with the mechanical key. (See page 6-16.)

“” (lock)

EAU76521



1. Push.
2. Push and turn.

The steering is locked and all electrical systems are off.

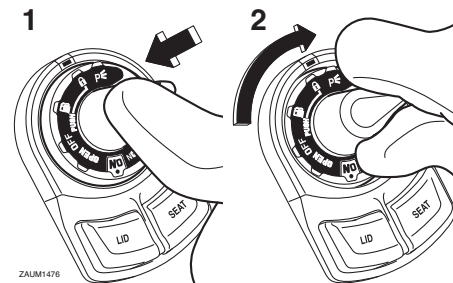
To lock the steering

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

TIP

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

To unlock the steering



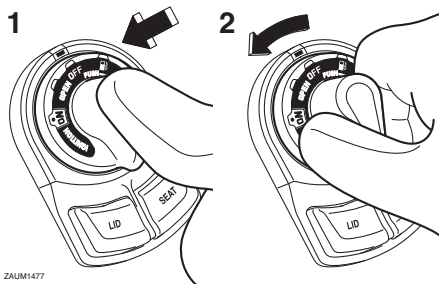
1. Push.
2. Push and turn.

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.

“” (fuel tank cap lid)

EAU79000

To open the fuel tank cap lid



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, turn the main switch to “”.

To close the fuel tank cap lid

Push the fuel tank cap lid down until it is closed.

TIP _____
Make sure that fuel tank cap lid is securely closed before starting off.

Stop and Start System

Stop and Start System

EAU76826



4

1. Stop and Start System indicator light “(A)”

The Stop and Start System stops the engine automatically when the vehicle is stopped in order 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 discharged 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 as the vehicle, there may be a delay when operating the vehicle under 10 km/h, such as in heavy traffic.
- If you think the battery voltage is low 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.

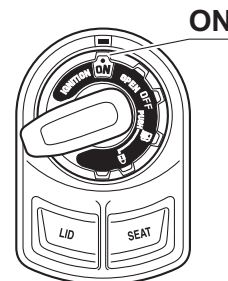
Stop and Start System operation

EAU76671

Activating the Stop and Start System

EAUM4970

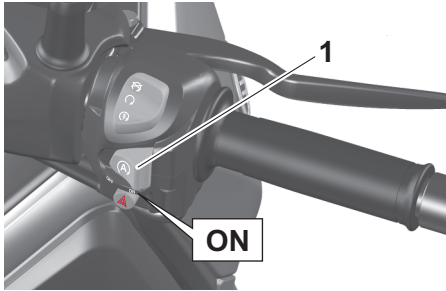
1. Turn the main switch on.



ZAUM1983

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

Stop and Start System



1. Stop and Start System switch “(A)”

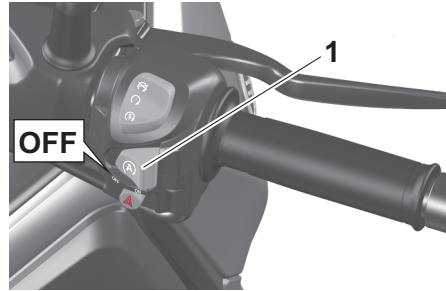
3. The Stop and Start System activates and the indicator light “(A)” comes on when the following conditions are met:

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



1. Stop and Start System indicator light “(A)”

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



1. Stop and Start System switch “(A)”

TIP

- To preserve battery power, the Stop and Start System may not activate.
- If the Stop and Start System does not activate, have a Yamaha dealer check the battery.

EAUM4980

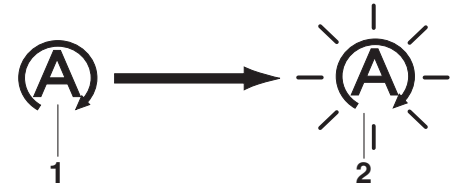
Stop the engine

The engine will stop automatically when the following conditions are met:

- The Stop and Start System switch is set to “ON”.

- The “(A)” indicator light on the multi-function meter is on.
- The vehicle is stopped with the throttle grip fully returned.

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



1. On
2. Flashing

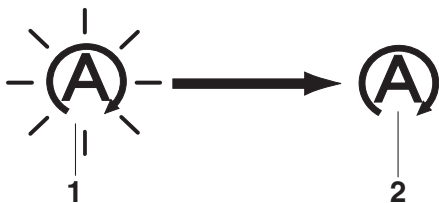
Restart the engine

If the throttle grip is turned while the Stop and Start System indicator light is flashing, the engine will automatically restart and the “(A)” indicator light will stop flashing.

EAUM4990

Stop and Start System

4



1. Flashing
2. Off

WARNING

Do not turn the throttle grip too much or too 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.

EWA18731



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.

EAU76711

Precautions when using the Stop and Start System

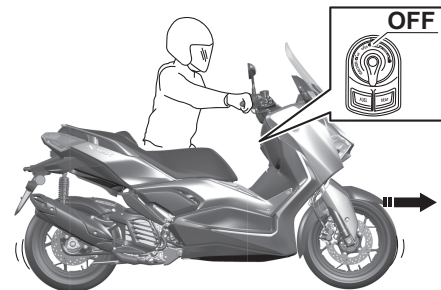
In order to prevent accidents due to improper operation, carefully read and observe the following precautions.

EWA18741

WARNING

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

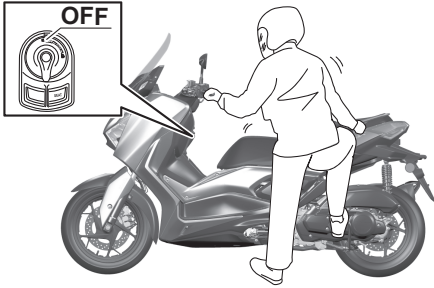
Stop and Start System is left turned on, the engine could start and the vehicle could start moving if the throttle grip is turned accidentally.



EWA18751

WARNING

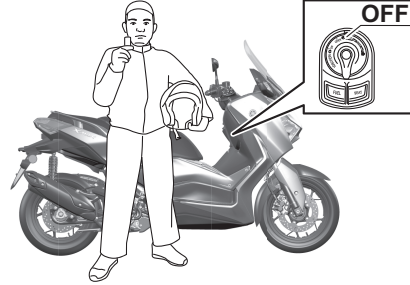
When placing the vehicle on the centerstand, be sure to turn the main switch off. If the vehicle is placed on the centerstand while the Stop and Start System is left turned on, the engine could start and the vehicle could start moving if the throttle grip is turned accidentally.



EWA18771

WARNING

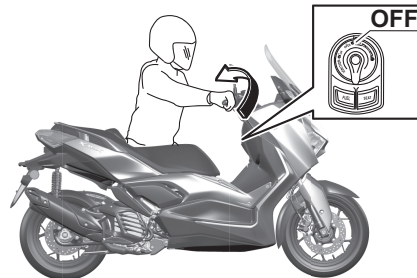
- When leaving the vehicle unattended, be sure to turn the main switch off.
- Do not leave the Stop and Start System turned on when parking the vehicle. Otherwise, the engine could start and the vehicle could start moving if the throttle grip is turned accidentally.



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.



Special features

CCU (Communication Control Unit)

EAUM4911

This model is equipped with a CCU that allows your vehicle and smartphone to connect using Bluetooth wireless technology and the MyRide App.

With this connection, notifications from apps, incoming phone calls and missed calls are signaled to you, and the battery level of your smartphone is displayed.

5

WARNING

- Always stop the vehicle before operating your smartphone.
- Never take your hands off the handlebars while riding.
- Always concentrate on riding by keeping your eyes and mind on the road.

EWAN0070

NOTICE

ECAN0150

The Bluetooth connection may not work in the following situations.

- In a location exposed to strong radio waves or other electro-magnetic noise.
- At facilities nearby that are emitting strong radio waves (TV or radio towers, power plants, broadcasting stations, airports, etc.).

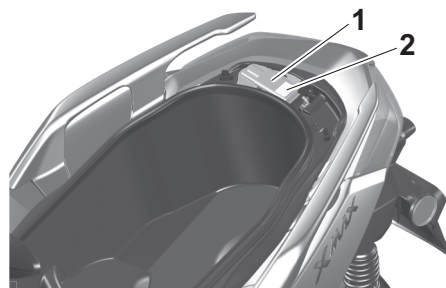
Pairing the CCU and your smartphone

1. Install the MyRide App on your smartphone and activate it.

TIP

The MyRide App can be downloaded from an App store.

2. Open the seat. (See page 3-8.)
3. Scan the QR code located on the CCU with the MyRide App.



1. CCU (Communication Control Unit)
2. CCU QR Code

4. When pairing is complete, the App connect icon and smartphone battery level meter will come on.

TIP

- Once paired, the smartphone is registered in the CCU. The next time the vehicle is turned on and the MyRide App is active, the connection will be automatically executed.
- Only one smartphone can be connected to the CCU at a time.
- If more than one phone has been registered in the CCU, then the first phone within reach will be connected.

Indicator lights and warning lights

EAU4939Y



1. High beam indicator light “”
2. Malfunction indicator light “”
3. Coolant temperature warning light “”
4. Right turn signal indicator light “”
5. ABS warning light “”
6. Stop and Start System indicator light “”
7. Smart key system indicator light “”
8. Traction control system indicator light “**TCS**”
9. Left turn signal indicator light “”

Turn signal indicator lights “” and “”

EAU88680

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

High beam indicator light “”

EAU88690

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

Coolant temperature warning light “”

EAU88880

This warning light comes on when the engine is overheating. If this occurs, stop the engine immediately and allow the engine to cool. (See page 9-31.)

For vehicles with a radiator fan, the radiator fan(s) automatically switch on or off according to the coolant temperature.

TIP

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

NOTICE

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

ECA10022

Malfunction indicator light (MIL) “”

EAU88712

This light comes on or flashes if a problem is detected in the engine or other vehicle control system. If this occurs, have a Yamaha dealer check the on-board diagnostic system. The electrical circuit of the warning light can be checked by turning the vehicle power on. The light should come on for a few seconds, and then go off. If the light does not come on initially when the vehicle power is turned on, or if the light remains on, have a Yamaha dealer check the vehicle.

ECA26820

NOTICE

If the MIL starts flashing, reduce engine speed to prevent exhaust system damage.

TIP

The engine is sensitively monitored by the on-board diagnostic system to detect deterioration and malfunction of the emission control system. Therefore the MIL may come on or flash due to vehicle modifications, lack of maintenance,

Instrument and control functions

6

nance, or excessive/improper use of the vehicle. To prevent this, observe these precautions.

- Do not attempt to modify the software of the engine control unit.
- Do not add any electrical accessories that interfere with engine control.
- Do not use aftermarket accessories or parts such as suspension, spark plugs, injectors, exhaust system, etc.
- Do not change the drivetrain specifications (chain, sprockets, wheels, tires, etc.).
- Do not remove or alter the O2 sensor, air induction system, or exhaust parts (catalysts or EXUP, etc.).
- Maintain V-belt and drive belt (if equipped) properly.
- Maintain correct tire pressure.
- Do not operate the vehicle in an extreme manner. For example, repeated or excessive opening and closing of the throttle, racing, burnouts, wheelies, etc.

ABS warning light “ ”

EAUN4001

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

EWA16043



WARNING

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

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

TIP

If the engine is revved while the brakes are applied or the vehicle is on its centerstand (if equipped), the ABS warning light may come on. If this happens, turn the vehicle power off and then back on again to reset the ABS warning light.

Traction control system indicator light “ ”

EAU88700

This indicator light will flash when traction control has engaged.

If the traction control system is turned off, this indicator light will come on.

TIP

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

Smart key system indicator light “ ”

EAUN2772

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.

Stop and Start System indicator light “A”

EAUM5000

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 “ON”, this indicator light may not come on. (See page 4-1.)

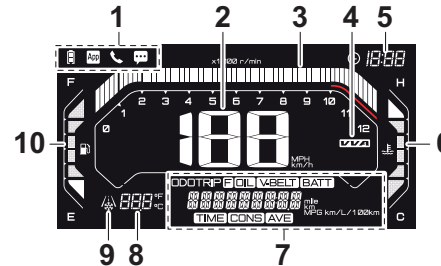
Display screen

EAUM4931

EWA18210

⚠ WARNING

Stop the vehicle before making any setting changes. Changing settings while riding can distract the operator and increase the risk of an accident.



1. Indicator icons
2. Speedometer
3. Tachometer
4. VVA (variable valve actuation) indicator
5. Clock
6. Coolant temperature meter
7. Information display
8. Air temperature display
9. Icy road warning indicator “/”
10. Fuel meter

TIP

- The display units can be switched between kilometers/miles by holding the “RES” switch while turning the main switch ON.

Speedometer

The speedometer shows the vehicle’s traveling speed.

Tachometer

The tachometer shows the engine speed, as measured by the rotational velocity of the crankshaft, in revolutions per minute (r/min).

ECA10032

NOTICE

Do not operate the engine in the tachometer red zone.

Red zone: 10000 r/min and above

Fuel meter

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

Instrument and control functions

When the first segment starts blinking, the fuel reserve tripmeter “TRIP F” will start counting, refuel as soon as possible.

TIP

If all the fuel meter display segments blink repeatedly, have a Yamaha dealer inspect the vehicle.

Coolant temperature meter

The coolant temperature meter indicates the radiator coolant temperature. When the coolant is too hot, the top segment will blink.

TIP

If all the coolant temperature meter display segments blink repeatedly, have a Yamaha dealer inspect the vehicle.

Clock “⌚”

The clock uses a 12-hour time system. The clock can be synchronized with a connected smartphone automatically or adjusted manually.

To adjust clock manually:

1. With the main switch OFF, hold the “SEL” switch and turn the main switch ON.
2. Keep holding the “SEL” switch for 8 seconds and the hour digits of the clock will start blinking.
3. Press the “SEL” switch to increment the hour digits.
4. Hold the “SEL” switch to confirm the digits and the minute digits will start blinking.
5. Press the “SEL” switch to increment the minute digits.
6. Hold the “SEL” switch to confirm the digits and the display will return to normal function.

TIP

The clock cannot be adjusted when the vehicle is in motion.

Air temperature display

Displays the ambient air temperature in °C from -10°C to 50°C.

TIP

Displayed temperature may differ from actual ambient temperature depending on conditions.

VVA indicator

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

Smartphone battery level indicator icon “🔋”

This icon displays the connected smartphone’s current battery level.

- Icon off: No smartphone connected.
- “🔋”: The center bar moves up and down to indicate the battery level.

When the battery level is below 11%, the icon will blink continuously.

Smartphone connectivity indicator icon “”

This icon comes on when a smartphone is successfully connected to the CCU.

Call indicator icon “”

The call indicator icon comes on when the connected smartphone receives a call. It will remain on until the main switch is turned OFF. The current call status will also be indicated by a message on the information display, either “INCOMING CALL” or “MISSED CALL”.

Notification indicator icon “”

The notification indicator icon comes on when the connected smartphone receives a notification. It will remain on until the main switch is turned OFF. The current notification status will also be indicated by a message on the information display, either “INCOMING MESSAGE” or “MISSED MESSAGE”.

TIP

Notifications must be setup for each application on the connected smartphone in advance.

Icy road warning Indicator “”

The icy road warning indicator will blink when the detected air temperature is 3 °C (37 °F) or lower.

TIP

In some riding conditions, this indicator may not blink when the actual air temperature reaches 3°C (37 °F) or lower

Information display

The information display shows important information about the vehicle. Press the “SEL” switch to cycle the following items in order:

- “ODO”: odometer
- “TRIP”: tripmeter
- “TRIP TIME”: trip timer
- “TRIP F”: fuel reserve tripmeter (when low fuel)
- “TRIP OIL”: oil change tripmeter

- “TRIP V-BELT”: V-belt replacement tripmeter
- various status/warning messages (if active)
- “CONS AVE”: average fuel consumption (km/L)
- “CONS AVE”: average fuel consumption (L/100km)
- “CONS”: current fuel consumption (km/L)
- “CONS”: current fuel consumption (L/100km)
- “AVE”: average speed
- “BATT”: battery voltage
- “TCS”: traction control system status

The “TRIP”, “TRIP F”, “TRIP OIL”, “TRIP V-BELT”, “CONS AVE”, and “AVE” items can be individually reset by holding the “RES” switch while the item is displayed.

Odometer “ODO”:

The odometer shows the total distance traveled by the vehicle.

TIP

The odometer will lock at 999999 km (621370 mile) and cannot be reset.

Instrument and control functions

Tripmeter “TRIP”:

Shows the distance since it was last reset.

TIP

The tripmeter will reset to 0.0 and begin counting again after 9999.9 has been reached.

Triptimer “TRIP TIME”:

Shows elapsed time with main switch ON since it was last reset (in hour:minute format).

TIP

The triptimer will reset to 0.0 and begin counting again after 99.59 has been reached.

Fuel reserve tripmeter “TRIP F”:

When the fuel tank reserve level has been reached, “TRIP F” appears automatically and begins recording distance traveled from that point.

After refueling and traveling some distance, “TRIP F” will disappear.

Oil change tripmeter “TRIP OIL”:

Shows the distance since it was last reset. When the mileage surpasses the maintenance interval, the “OIL” segment will blink repeatedly. The oil change maintenance intervals are at 1000 km, 5000 km, and then every 6000 km thereafter.

After changing the engine oil, manually reset the oil change tripmeter.

V-belt replacement tripmeter “TRIP V-BELT”:

Shows the distance since it was last reset. When the mileage surpasses the maintenance interval, the “V-BELT” segment will blink repeatedly. The v-belt replacement maintenance interval at every 18000 km.

After changing the engine oil, manually reset the oil change tripmeter.

Status messages:

Various status messages can appear in the information display when triggered by an event. When a status event occurs, the information display will switch

to show the status message. When more than one status message is active, they will alternate.

The status messages are:

- Low fuel warning “L FUEL”. Corresponds to fuel reserve tripmeter becoming active.
- Coolant temperature warning “H TEMP”. Corresponds to the last segment of the coolant temperature meter blinking.
- Icy road warning “ICE”. Corresponds to the icy road warning indicator becoming active.
- Oil change alert “OIL SERV”. Corresponds to the “OIL” segment of the oil change tripmeter starting to blink when the service interval mileage has been surpassed.
- V-belt replacement alert “V-BELT SERV”. Corresponds to the “V-BELT” segment of the oil change tripmeter starting to blink when the service interval mileage has been surpassed.
- Incoming call alert “INCOMING CALL”. Corresponds to the call indicator icon coming on.

- Missed call alert “MISSED CALL”. Corresponds to the call indicator icon coming on and if the call is not answered on the connected smartphone.
- Incoming notification alert “INCOMING MESSAGE”. Corresponds to the notification indicator icon coming on.
- Missed notification alert “MISSED MESSAGE”. Corresponds to the notification indicator icon coming on and if the message is not viewed on the connected smartphone.

Average fuel consumption “CONS AVG”:

The average fuel consumption since last reset, displayed in first “km/L” and then “L/100km”, or “MPG”.

TIP

After resetting the average fuel consumption display, “---.” will be shown until the vehicle has traveled 1 km.

Current fuel consumption “CONS”:

The current fuel consumption, displayed in first “km/L” and then “L/100km”, or “MPG”.

TIP

If stopped or at low speed the current fuel consumption may read at or near the maximum display range: “99.9 km/L” / “1.0 L/100km” / “299.9 MPG”.

Average speed “AVE”:

Shows the average speed since it was last reset.

Battery voltage “BATT”:

Shows the current charge state of the battery. The display range is 9.0-16.0 V.

TIP

If the battery voltage is outside the display range, “---” is displayed.

Traction control system status “TCS ON” / “TCSOFF”:

Shows/changes the current traction control system setting. With this item displayed, hold the “SEL” switch for 3 seconds to turn the traction control system on/off.

TIP

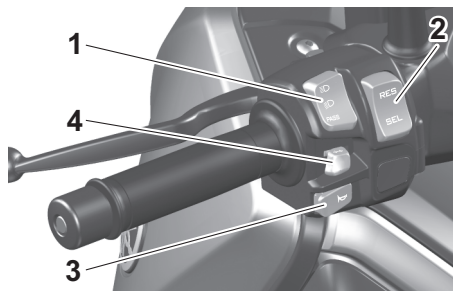
When “TCSOFF” is displayed the “**TCS**” indicator light will come on.

Instrument and control functions

Handlebar switches

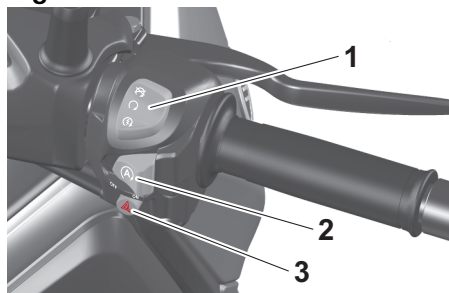
EAU1234T

Left



1. Dimmer/Pass switch “ $\equiv$ 〇/ $\equiv$ 〇/PASS”
2. “SEL/RES” switch
3. Horn switch “ HORN ”
4. Turn signal switch “ $\leftarrow/\rightarrow$ ”

Right

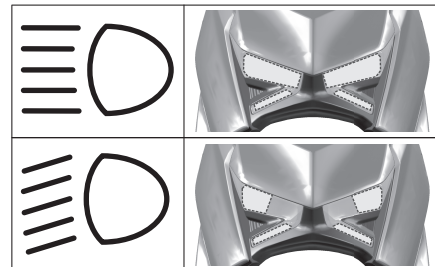


1. Stop/Run/Start switch “ $\text{STOP}/\text{RUN}/\text{START}$ ”
2. Stop and Start System switch “ STOP ”
3. Hazard switch “ Δ ”

EAU54203

Dimmer/Pass switch “ $\equiv$ 〇/ $\equiv$ 〇/PASS”

Set this switch to “ $\equiv$ 〇” for the high beam and to “ $\equiv$ 〇” for the low beam. To flash the high beam, push the switch down towards “PASS” while the headlights are on low beam.



EAU12461

Turn signal switch “ $\leftarrow/\rightarrow$ ”

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

EAU12501

Horn switch “ HORN ”

Press this switch to sound the horn.

Stop/Run/Start switch “//”

EAU54213

To crank the engine with the starter, set this switch to “”, and then push the switch down towards “”. See page 8-2 for starting instructions prior to starting the engine.

Set this switch to “” to stop the engine in case of an emergency, such as when the vehicle overturns or when the throttle cable is stuck.

Hazard switch “”

EAUM4940

Use this switch to turn on the hazard lights (simultaneous flashing of all turn signal lights).

The hazard lights are used in case of an emergency or to warn other drivers when your vehicle is stopped where it might be a traffic hazard.

The hazard lights can be turned on or off only when the main switch is in the “ON” position. You can turn the main switch to the “OFF” or “” position, and the hazard lights will continue to flash. To turn off the hazard lights, turn the main switch to the “ON” position and operate the hazard switch again.

NOTICE

ECA10062

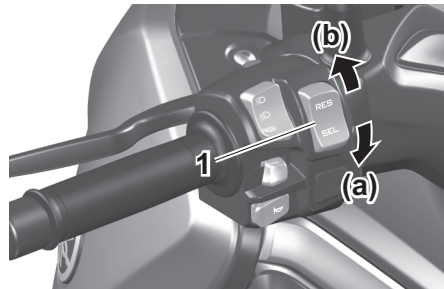
Do not use the hazard lights for an extended length of time with the engine not running, otherwise the battery may discharge.

“SEL/RES” switch

EAUM4960

This switch is used to make setting and display changes in the display screen. See page 6-3 for more information.

To use the “SEL” switch, move the “SEL/RES” switch in direction (a). To use the “RES” switch, move the “SEL/RES” switch in direction (b).



1. “SEL/RES” switch

Stop and Start System switch “”

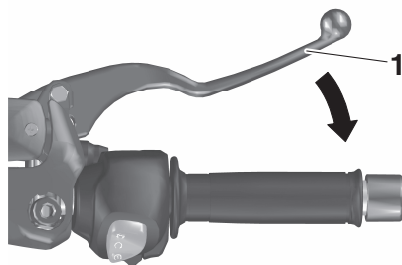
EAUM5010

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

Instrument and control functions

Front brake lever

EAU12902



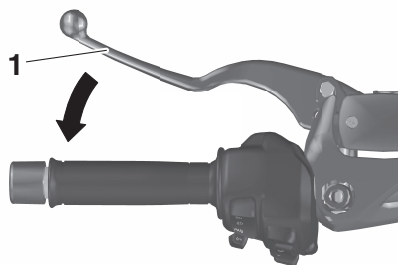
6

1. Front brake lever

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

Rear brake lever

EAU12952



1. Rear brake lever

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

EAU78201

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

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

EWA16051

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.

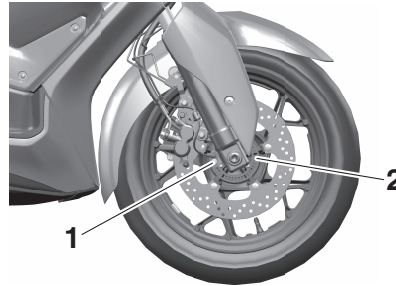
TIP

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

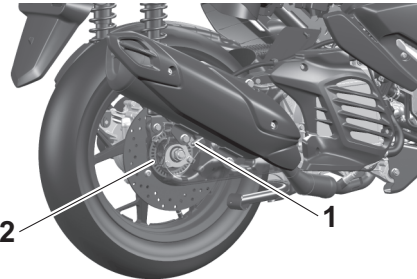
ECA20100

NOTICE

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



1. Front wheel sensor
2. Front wheel sensor rotor



1. Rear wheel sensor
2. Rear wheel sensor rotor

Traction control system

The traction control system helps maintain traction when accelerating on slippery surfaces, such as unpaved or wet roads. If sensors detect that the rear wheel is starting to slip (uncontrolled spinning), the traction control system assists by regulating engine power until traction is restored.

When traction control has engaged, the “**TCS**” indicator light will flash. You may notice changes in engine response or exhaust sound.

EWA18860

⚠ WARNING

The traction control system is not a substitute for riding appropriately for the conditions. Traction control cannot prevent loss of traction due to excessive speed when entering turns, when accelerating hard at a sharp lean angle, or while braking, and cannot prevent front wheel slipping. As with any vehicle, approach surfaces that may be slippery with caution and avoid especially slippery surfaces.

Instrument and control functions

Setting the traction control system



1. Traction control system indicator “TCS”

When the vehicle is turned on, traction control is automatically turned on. To turn the traction control system off/on, follow the procedure on page 6-7.

TIP

Turn the traction control system off to help free the rear wheel if the vehicle gets stuck in mud, sand, or other soft surfaces.

NOTICE

Use only the specified tires. (See page 9-15.) Using different sized tires will prevent the traction control system from controlling tire rotation accurately.

Resetting the traction control system

The traction control system will automatically disable under certain conditions; such as when a sensor fault is detected, or when only one wheel is allowed to rotate for more than a few seconds. Should this happen, the “TCS” indicator light will come on, and possibly the “ ” warning light, too.

TIP

When the vehicle is on the centerstand, do not rev the engine for an extended period of time. Otherwise, the traction control system will automatically disable and need to be reset.

If the traction control system automatically disables, try resetting it as follows.

1. Stop the vehicle and turn it off completely.
2. Wait a few seconds and then turn the vehicle power on.
3. The “TCS” indicator light should turn off and the system be enabled.

TIP

If the “TCS” indicator light remains on after resetting, the vehicle may still be ridden; however, have a Yamaha dealer check the vehicle as soon as possible.

4. Have a Yamaha dealer check the vehicle and turn off the “ ” warning light.

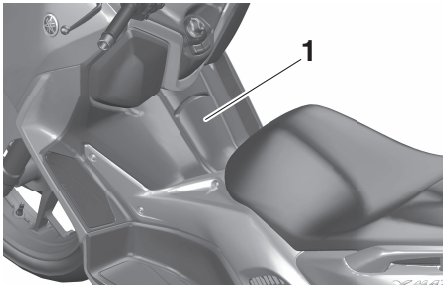
ECA16801

EAU78503

Fuel tank cap

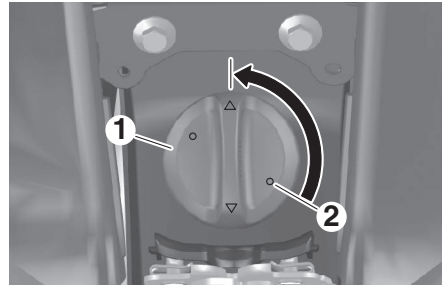
To remove the fuel tank cap

1. With the smart key turned on and within operating range, turn the main switch to “” to open the fuel tank cap lid.



1. Fuel tank cap lid

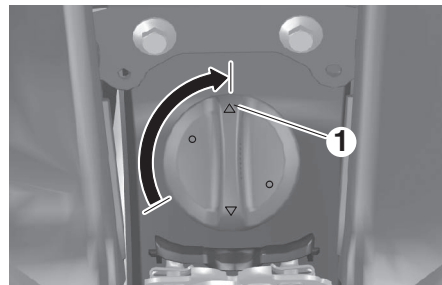
2. Turn the fuel tank cap counter-clockwise until the release mark “o” aligns with “▽”, and then pull the cap off.



1. Fuel tank cap
2. Release mark “o”

To install the fuel tank cap

1. Insert the fuel tank cap onto the tank opening and turn it clockwise until the install mark “△” aligns with “▽”.



1. Install mark “△”
2. Close the fuel tank cap lid.

WARNING

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

Instrument and control functions

Fuel

Make sure there is sufficient gasoline in the tank.

EAU13213

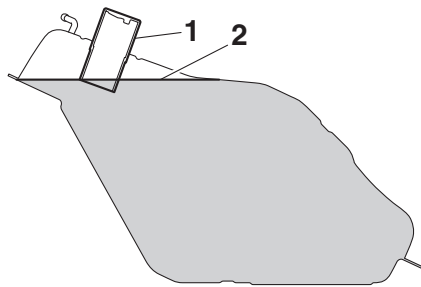
EWA10882

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.

6

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.

EAU86072

Your Yamaha engine was designed to use unleaded gasoline with a research octane number of 90 or higher. If engine knocking or pinging occurs, use a gasoline of a different brand or higher octane rating.

Recommended fuel:

Unleaded gasoline (E10 acceptable)

Octane number (RON):

90

Fuel tank capacity:

13 L (3.4 US gal, 2.9 Imp.gal)

Fuel tank reserve:

2.4 L (0.63 US gal, 0.53 Imp.gal)



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.

ECA11401

TIP

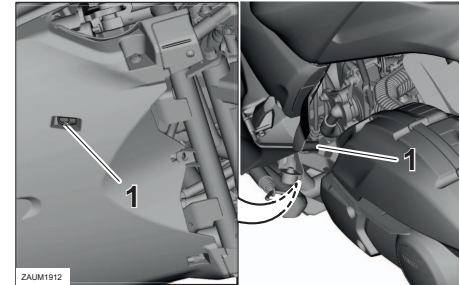
- This mark identifies the recommended fuel for this vehicle as specified by European regulation (EN228).
- Confirm the gasoline pump nozzle has the same fuel identification mark.

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.

Fuel tank overflow hose

EAU58301



1. Fuel tank overflow hose

Before operating the vehicle:

- Check the fuel tank overflow hose connection and routing.
- Check the fuel tank overflow hose for cracks or damage, and replace it if necessary.
- Make sure that the fuel tank overflow hose is not blocked, and clean it if necessary.

Instrument and control functions

Catalytic converter

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

EAU13435

EWA10863

WARNING

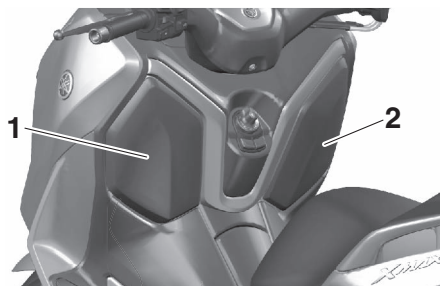
The exhaust system is hot after operation. To prevent a fire hazard or burns:

- 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.

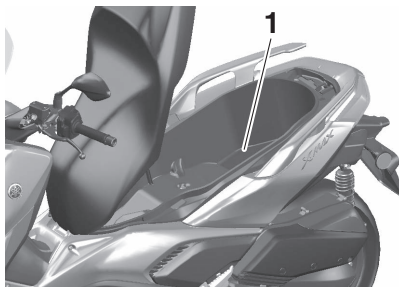
Storage compartments

This model is equipped with 3 storage compartments. The front storage compartments and rear storage compartment are located as shown.

EAU78515



1. Storage compartment A
2. Storage compartment B



1. Rear storage compartment

TIP

- Storage compartment A can only be opened using the smart key system. (See page 3-8.)
- The seat/rear storage compartment can be opened using the smart key system or the mechanical key.
- Some helmets cannot be stored in the rear storage compartment because of their size or shape.

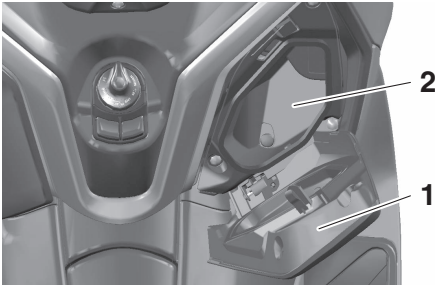
Storage compartment A

To open storage compartment A: with the smart key turned on and within operating range, turn the main switch to “OPEN” and then push the “LID” button.

To close storage compartment A, push the storage compartment lid until it is closed.

Storage compartment B

To open storage compartment B, push the storage compartment lid inward to unlock it, and then pull to open.



1. Lid
2. Storage compartment B

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

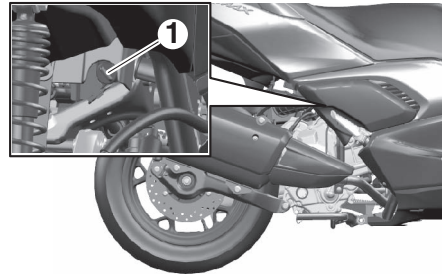
Seat/rear storage compartment

To open the seat/rear storage compartment via the main switch

With the smart key turned on and within operating range, turn the main switch to “OPEN”, and then push the “SEAT” button.

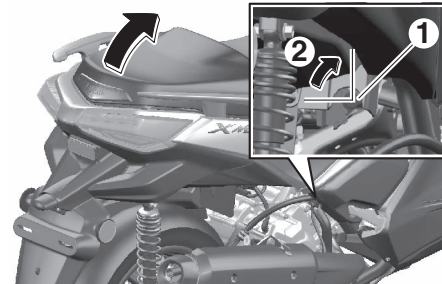
To open the seat/rear storage compartment with the mechanical key

1. Open the keyhole cover.



1. Keyhole cover

2. Insert the mechanical key into the seat lock, and then turn it clockwise.



1. Seat lock
2. Unlock.

TIP

Be sure to close the seat and all storage compartments before starting off.

ECA24020

NOTICE

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

ECA21150

NOTICE

Keep the following points in mind when using the storage compartment.

- Since the storage compartment accumulates heat when exposed to the sun and/or the engine heat, do not store anything susceptible to heat, consumables or flammable items inside it.
- To avoid humidity from spreading through the storage compartment, wrap wet articles in a plastic bag before storing them in the compartment.

Instrument and control functions

- 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.

WARNING

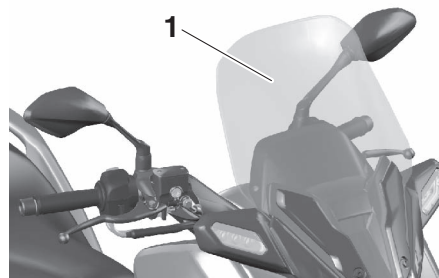
EWA18950

6

- Do not exceed the load limit of 1 kg (2.2 lb) for storage compartment A.
- Do not exceed the load limit of 0.5 kg (1.1 lb) for storage compartment B.
- Do not exceed the load limit of 5 kg (11 lb) for the rear storage compartment.
- Do not exceed the maximum load of 163 kg (360 lb) for the vehicle.

Windscreen

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

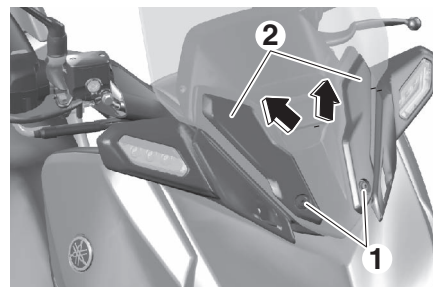


1. Windscreen

To change the windscreen height to the high position

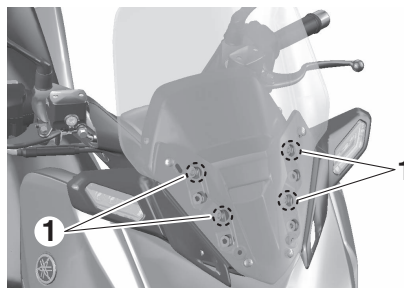
1. Remove the bolt access covers by removing the quick fasteners.

EAN3922



1. Quick fastener
2. Bolt access cover

2. Remove the windscreen by removing the bolts.

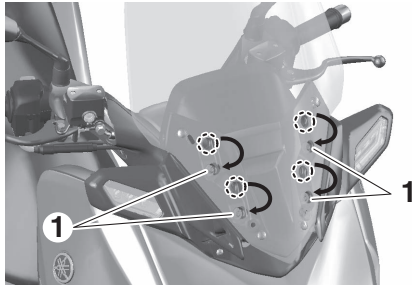


1. Bolt

3. Install the windscreen to the high position by installing the bolts, and then tighten the bolts to the specified torque. **WARNING! A loose**

windscreen could cause an accident. Be sure to tighten the screws to the specified torque.

[EWAN0080]

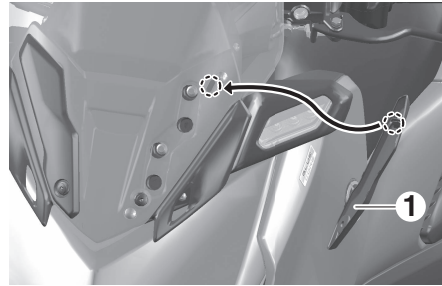


1. Bolt

Tightening torque:

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

4. Place the bolt access covers, and then install the quick fasteners.

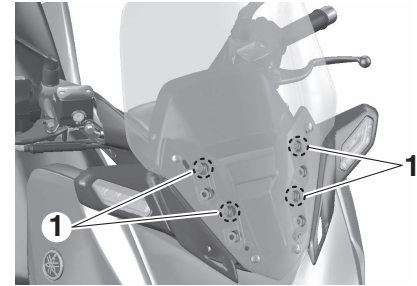


1. Bolt

To change the windscreen height to the low position

1. Remove the bolt access covers by removing the quick fasteners.
2. Remove the windscreen by removing the bolts.
3. Install the windscreen to the low position by installing the bolts, and then tighten the bolts to the specified torque. **WARNING! A loose windscreen could cause an accident. Be sure to tighten the screws to the specified torque.**

[EWAN0080]



1. Bolt

Tightening torque:

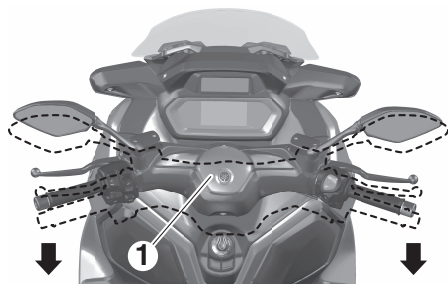
Windscreen bolt:
7 N·m (0.7 kgf·m, 5.2 lb·ft)

4. Place the bolt access covers, and then install the quick fasteners.

Instrument and control functions

Handlebar position

The handlebar can be adjusted to one of two positions to suit the rider's preference. Have a Yamaha dealer adjust the position of the handlebar.



1. Handlebar

EAU46833

Adjusting the shock absorber assemblies

EAU14895

EWA10211



WARNING

Always adjust both shock absorber assemblies equally, otherwise poor handling and loss of stability may result.

Each shock absorber assembly is equipped with a spring preload adjusting ring.

ECA10102

NOTICE

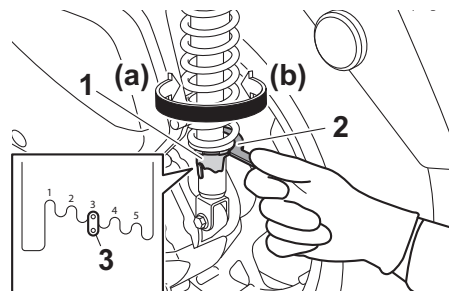
To avoid damaging the mechanism, do not attempt to turn beyond the maximum or minimum settings.

Adjust the spring preload as follows.

Turn the adjusting ring in direction (a) to increase the spring preload.

Turn the adjusting ring in direction (b) to decrease the spring preload.

- Align the appropriate notch in the adjusting ring with the position indicator on the shock absorber.
- Use the spring preload adjusting tool included in the kit to make this adjustment.



1. Spring preload adjusting ring
2. Special wrench
3. Position indicator

Spring preload setting:

Minimum (soft):

1

Standard:

3

Maximum (hard):

5

Power outlet

EAUN3821

EWAN0050

WARNING

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

ECAN0210

NOTICE

The accessory connected to the power outlet should not be used with the engine turned off, and the load must never exceed 12 W (1 A), otherwise the fuse may blow or the battery may discharge.

This vehicle is equipped with a power outlet located within storage compartment A.

A 12-V accessory connected to the power outlet can be used when the main switch is in the “ON” position and should only be used when the engine is running.

To use the power outlet

1. Open storage compartment A. (See page 3-8.)
2. Turn the main switch off.

3. Remove the power outlet cap.



ZAUM1930

1. Power outlet cap

4. Turn the accessory off.
5. Insert the accessory plug into the power outlet.



ZAUM1931

1. Power outlet

6. Turn the main switch on, and then start the engine. (See page 8-2.)
7. Turn the accessory on.

DC connectors

EAU99831

This vehicle is equipped with additional wiring and DC connector(s) for the installation of optional electric accessories.

Consult a Yamaha dealer for more information regarding the location and capacity of the DC connector(s) and about what accessories are capable of being installed.

Instrument and control functions

Sidestand

EAU15306

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.)

6

WARNING

EWA10242

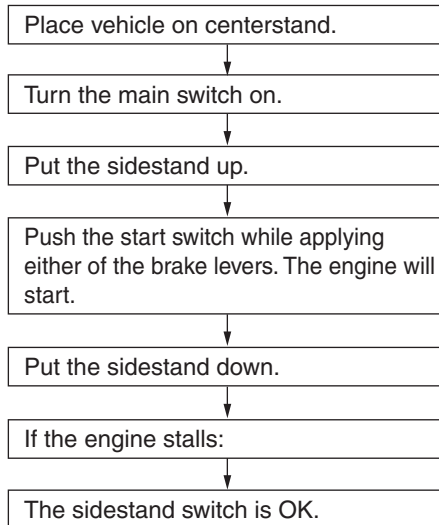
The vehicle must not be ridden with the sidestand down, or if the sidestand cannot be properly moved up (or does not stay up), otherwise the sidestand could contact the ground and distract the operator, resulting in a possible loss of control. Yamaha's ignition circuit cut-off system has been designed 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.

EAUT1098

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 centerstand during this inspection.
- If a malfunction is found, have the vehicle inspected before riding.

For your safety – pre-operation checks

EAU1559B

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

EWA11152

WARNING

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

Before using this vehicle, check the following points:

ITEM	CHECKS	PAGE
Fuel	• Check fuel level in fuel tank. • Refuel if necessary. • Check fuel line for leakage. • Check fuel tank overflow hose for obstructions, cracks or damage, and check hose connection.	6-14, 6-15
Engine oil	• Check oil level in engine. • If necessary, add recommended oil to specified level. • Check vehicle for oil leakage.	9-10
Final transmission oil	• Check vehicle for oil leakage.	9-11
Coolant	• Check coolant level in reservoir. • If necessary, have Yamaha dealer add coolant. • Check cooling system for leakage.	9-11
Front brake	• Check operation. • If soft or spongy, have Yamaha dealer bleed hydraulic system. • Check brake pads for wear. • Replace if necessary. • Check fluid level in reservoir. • If necessary, add specified brake fluid to specified level. • Check hydraulic system for leakage.	9-17, 9-18, 9-19

For your safety – pre-operation checks

ITEM	CHECKS	PAGE
Rear brake	• Check operation. • If soft or spongy, have Yamaha dealer bleed hydraulic system. • Check brake pads for wear. • Replace if necessary. • Check fluid level in reservoir. • If necessary, add specified brake fluid to specified level. • Check hydraulic system for leakage.	9-17, 9-18, 9-19
Throttle grip	• Make sure that operation is smooth. • Check throttle grip free play. • If necessary, have Yamaha dealer adjust throttle grip free play and lubricate cable and grip housing.	9-15, 9-21
Control cables	• Make sure that operation is smooth. • Lubricate if necessary.	9-21
Wheels and tires	• Check for damage. • Check tire condition and tread depth. • Check air pressure. • Correct if necessary.	9-15, 9-17
Brake levers	• Make sure that operation is smooth. • Lubricate lever pivoting points if necessary.	9-21
Centerstand, sidestand	• Make sure that operation is smooth. • Lubricate pivots if necessary.	9-22
Chassis fasteners	• Make sure that all nuts, bolts and screws are properly tightened. • Tighten if necessary.	—
Instruments, lights, signals and switches	• Check operation. • Correct if necessary.	—
Sidestand switch	• Check operation of ignition circuit cut-off system. • If system is not working correctly, have Yamaha dealer check vehicle.	6-22

Operation and important riding points

EAU15952

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

EWA10272

WARNING

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

Engine break-in

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

Since the engine is brand new, do not put an excessive load on it for the first 1000 km (600 mi). The various parts in the engine wear and polish themselves to the correct operating clearances. During this period, prolonged full-throttle operation or any condition that might result in engine overheating must be avoided.

EAU16831

1000 km (600 mi) and beyond

The vehicle can now be operated normally.

ECA10311

NOTICE

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

EAUM4310

0–500 km (0–300 mi)

Avoid prolonged operation above 5000 r/min.

500–1000 km (300–600 mi)

Avoid prolonged operation above 6000 r/min. **NOTICE:** After 1000 km (600 mi) of operation, be sure to replace the engine oil and clean the oil strainer, and replace the final transmission oil. [ECA23650]

Starting the engine

EAUM4461

The ignition circuit cut-off system will enable starting when the sidestand is be up.

To start the engine

1. Turn the main switch on.
2. Confirm the indicator and warning light(s) come on for a few seconds, and the go off. (See page 6-1.)

TIP

- Do not start the engine if the malfunction indicator light remains on.
- The ABS warning light should come on and stay on until the vehicle reaches a speed of 10 km/h (6 mi/h).

ECA24110

NOTICE

If a warning or indicator light does not work as described above, have a Yamaha dealer check the vehicle.

3. Close the throttle completely.
4. While applying the front or rear brake, push the start switch.

5. Release the start switch when the engine starts, or after 5 seconds. Wait 10 seconds before pressing the switch again to allow battery voltage to restore.

ECA11043

NOTICE

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

EAUM4280

TIP

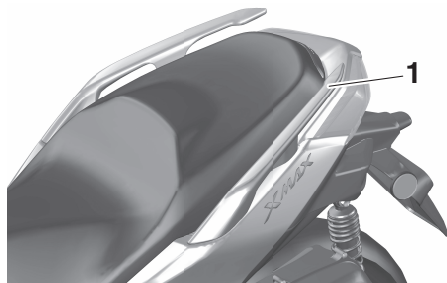
This model is equipped with a lean angle sensor to stop the engine in case of a turnover. In this case, the malfunction Indicator light will come on but this is not a malfunction. Turn the vehicle power off and then back on again to cancel the Indicator light. Failing to do so will prevent the engine from starting even though the engine will crank when pushing the start switch.

Operation and important riding points

Starting off

EAU45093

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.

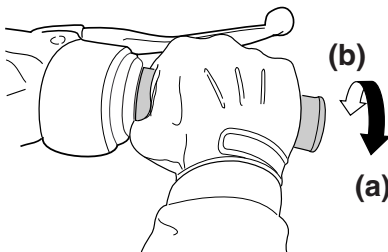


1. Grab bar

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

Acceleration and deceleration

EAU16783



ZALIM0199

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).

ECA12682

NOTICE

- **Use the brake when stopping on an uphill slope. Holding the vehicle at a stop with throttle operation will cause the clutch to heat up, causing damage to the clutch.**

- **Do not rev the throttle unnecessarily, otherwise the malfunction indicator light (MIL)/engine trouble warning light may come on.**

Braking

EAU60650

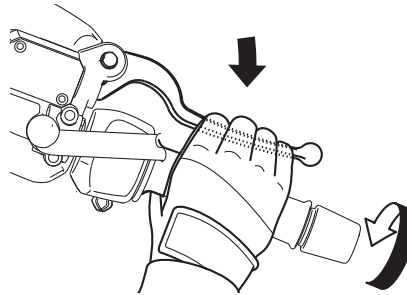
EWA17790

WARNING

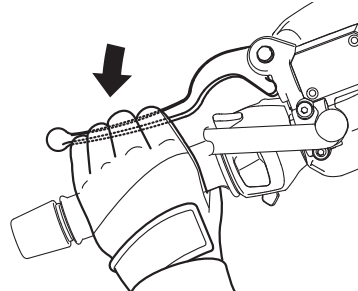
- Avoid braking hard or suddenly (especially when leaning over to one side), otherwise the vehicle may skid or overturn.
- Railroad crossings, streetcar rails, iron plates on road construction sites, and manhole covers become extremely slippery when wet. Therefore, slow down when approaching such areas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

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

Front



Rear



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

EAUN1421

EWA10312

Parking

When parking, turn the vehicle power off, and then turn the smart key off.

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 3-5.)

If the sidestand is lowered when the engine is running, the engine will stop and the beeper will sound for approximately 1 minute. To stop the beeper, turn the vehicle power off or raise the sidestand.

TIP

- Before leaving the vehicle, be sure to turn the main switch to “OFF” or “”. Otherwise, the battery may discharge.
- The sidestand alarm beeper can be set to not activate. Please contact your Yamaha dealer.

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.

Periodic maintenance and adjustment

EAUS1824

EWA15123

EWA15461

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

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

WARNING

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

WARNING

Turn off the engine when performing maintenance unless otherwise specified.

- **A running engine has moving parts that can catch on body parts or clothing and electrical parts that can cause shocks or fires.**
- **Running the engine while servicing can lead to eye injury, burns, fire, or carbon monoxide poisoning – possibly leading to death. See page 1-3 for more information about carbon monoxide.**

WARNING

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

EWA10322

EWA10331

WARNING

This scooter is designed for use on paved roads only. If this scooter is operated in abnormally dusty, muddy or wet conditions, the air filter element should be cleaned or replaced more frequently, otherwise rapid engine wear may result. Consult a Yamaha dealer for proper maintenance intervals.

Periodic maintenance and adjustment

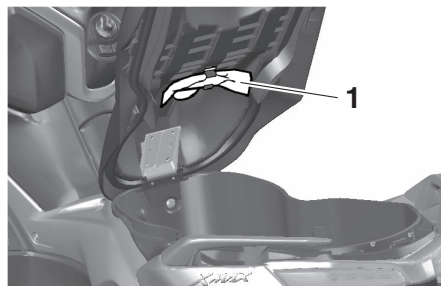
EAU17303

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

9

EAU85230

Tool kit



1. Tool kit

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

TIP

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

Periodic maintenance and adjustment

EAU71021

- TIP**
- The annual checks must be performed every year, except if a distance-based maintenance is performed instead.
 - From 30000 km (17500 mi), repeat the maintenance intervals starting from 6000 km (3500 mi).
 - Items marked with an asterisk should be performed by a Yamaha dealer as they require special tools, data and technical skills.

EAU71041

Periodic maintenance chart for the emission control system

NO.	ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING					ANNUAL CHECK
			1000 km (600 mi)	6000 km (3500 mi)	12000 km (7000 mi)	18000 km (10500 mi)	24000 km (14000 mi)	
1	* Fuel line	• Check fuel hoses for cracks or damage. • Replace if necessary.		√	√	√	√	√
2	* Spark plug	• Check condition. • Adjust gap and clean.		√		√		
		• Replace.			√		√	
3	* Valve clearance	• Check and adjust.		√	√	√	√	
4	* Fuel injection	• Check engine idle speed.	√	√	√	√	√	√
5	* Exhaust system	• Check for leakage. • Tighten if necessary. • Replace gasket if necessary.	√	√	√	√	√	
6	* Evaporative emission control system	• Check control system for damage. • Replace if necessary.			√		√	

Periodic maintenance and adjustment

EAU71344

General maintenance and lubrication chart

NO.	ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING					ANNUAL CHECK
			1000 km (600 mi)	6000 km (3500 mi)	12000 km (7000 mi)	18000 km (10500 mi)	24000 km (14000 mi)	
1	* Diagnostic system check	- Perform dynamic inspection using Yamaha diagnostic tool. - Check the error codes.	√	√	√	√	√	√
2	* Air filter element	Replace.			√		√	
3	Air filter case check hose	Clean.	√	√	√	√	√	
4	* V-belt case air filter element	Clean.		√	√		√	
		Replace.				√		
5	* Front brake	- Check operation, fluid level, and for fluid leakage. - Replace brake pads if necessary.	√	√	√	√	√	√
6	* Rear brake	- Check operation, fluid level, and for fluid leakage. - Replace brake pads if necessary.	√	√	√	√	√	√
7	* Brake hoses	Check for cracks or damage.		√	√	√	√	√
		Replace.	Every 4 years					
8	* Brake fluid	Change.	Every 2 years					
9	* Wheels	- Check runout and for damage. - Replace if necessary.		√	√	√	√	
10	* Tires	- Check tread depth and for damage. - Replace if necessary. - Check air pressure. - Correct if necessary.		√	√	√	√	√

Periodic maintenance and adjustment

NO.	ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING					ANNUAL CHECK
			1000 km (600 mi)	6000 km (3500 mi)	12000 km (7000 mi)	18000 km (10500 mi)	24000 km (14000 mi)	
11	* Wheel bearings	• Check bearing for looseness or damage.		√	√	√	√	
12	* Steering bearings	• Check bearing assemblies for looseness.	√	√	√	√		
		• Moderately repack with lithium-soap-based grease.					√	
13	* Chassis fasteners	• Make sure that all nuts, bolts and screws are properly tightened.		√	√	√	√	√
14	Front and rear brake lever pivot shaft	• Lubricate with silicone grease.		√	√	√	√	√
15	Sidestand, center-stand	• Check operation. • Lubricate with lithium-soap-based grease.		√	√	√	√	√
16	* Sidestand switch	• Check operation and replace if necessary.	√	√	√	√	√	√
17	* Front fork	• Check operation and for oil leakage. • Replace if necessary.		√	√	√	√	
18	* Shock absorber assemblies	• Check operation and for oil leakage. • Replace if necessary.		√	√	√	√	
19	* Engine oil	• Change (warm engine before draining).	At the initial interval and when the oil change indicator flashes or comes on Every 3000 km (1800 mi)					
		• Check oil level and vehicle for oil leakage.						
20	* Engine oil strainer	• Clean.	√					

Periodic maintenance and adjustment

NO.	ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING					ANNUAL CHECK
			1000 km (600 mi)	6000 km (3500 mi)	12000 km (7000 mi)	18000 km (10500 mi)	24000 km (14000 mi)	
21	* Final transmission oil	• Check vehicle for oil leakage.	√	√	√	√	√	
		• Change.	√		√		√	
22	* Cooling system	• Check coolant level and vehicle for coolant leakage.		√	√	√	√	√
		• Change.	Every 3 years					
23	* V-belt	• Replace.	When the V-belt replacement indicator flashes or comes on					
24	* Front and rear brake switches	• Check operation.	√	√	√	√	√	√
25	* Moving parts and cables	• Lubricate.		√	√	√	√	√
26	* Throttle grip housing and cable	• Check operation and free play. • Adjust the throttle cable free play if necessary. • Lubricate the throttle grip housing and cable.		√	√	√	√	√
27	* Lights, signals and switches	• Check operation. • Adjust headlight beam.	√	√	√	√	√	√

EAU72790

TIP

- Engine air filter and V-belt air filter
 - This model's engine air filter is equipped with a disposable oil-coated paper element, which must not be cleaned with compressed air to avoid damaging it.
 - The engine air filter element needs to be replaced and the V-belt air filter element needs to be serviced more frequently when riding in unusually wet or dusty areas.

Periodic maintenance and adjustment

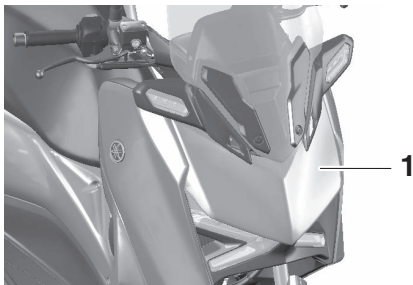
- Hydraulic brake service
 - After disassembling the brake master cylinders and calipers, always change the fluid. Regularly check the brake fluid levels and fill the reservoirs as required.
 - Every two years replace the internal components of the brake master cylinders and calipers, and change the brake fluid.
 - Replace the brake hoses every four years and if cracked or damaged.
-

Periodic maintenance and adjustment

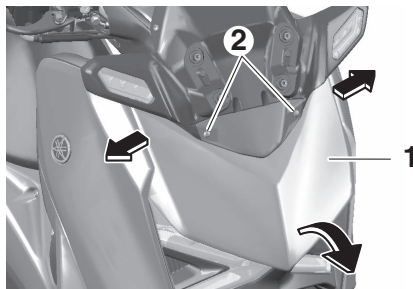
Removing and installing the panel

EAU18752

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



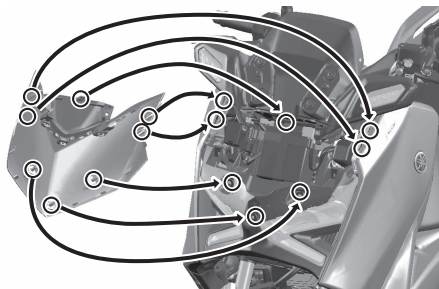
1. Panel A



1. Panel A
2. Screw

To install the panel

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



EAU78530

Panel A

To remove the panel

Remove the screws, and then pull the panel outward and slide it forward as shown.

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.

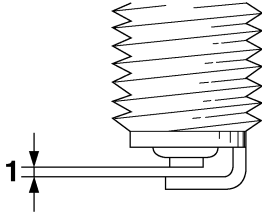
If the spark plug shows signs of electrode erosion and excessive carbon or other deposits, it should be replaced.

Specified spark plug:
NGK/CPR8EA-9

Periodic maintenance and adjustment

EAU36113

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:

0.8–0.9 mm (0.031–0.035 in)

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

Tightening torque:

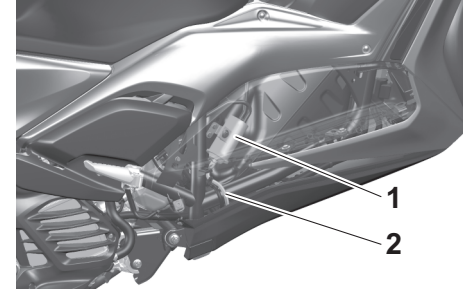
Spark plug:

13 N·m (1.3 kgf·m, 9.6 lb·ft)

TIP

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

Canister



1. Canister

2. Canister breather hose

This model is equipped with a canister to prevent the discharging of fuel vapor into the atmosphere. Before operating this vehicle, make sure to check the following:

- Check each hose connection.
- Check each hose and canister for cracks or damage. Replace if damaged.
- Make sure that the canister breather is not blocked, and if necessary, clean it.

Periodic maintenance and adjustment

Engine oil

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

Recommended engine oil:

10W-40

Oil quantity:

Oil change:

0.90 L (0.95 US qt, 0.79 Imp.qt)

EAUM4550

ECA11621

NOTICE

- In order to prevent clutch slip-page (since the engine oil also lubricates the clutch), do not mix any chemical additives. Do not use oils with a diesel specification of "CD" or oils of a higher quality than specified. In addition, do not use oils labeled "ENERGY CONSERVING II" or higher.
- Make sure that no foreign material enters the crankcase.

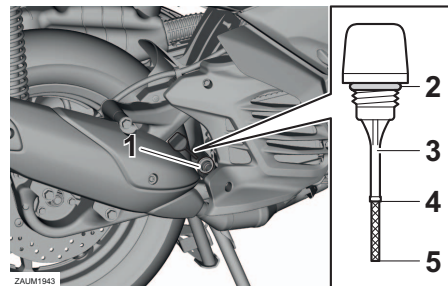
To check the engine oil level

1. Place the vehicle on a level surface and hold it in an upright position. 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.

NOTICE: Do not operate the vehicle until you know that the engine oil level is sufficient. [ECA10012]

TIP

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



1. Oil filler hole
2. O-ring
3. Engine oil dipstick
4. Maximum level mark
5. Minimum level mark

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

Why Yamalube

EAU85450

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



Final transmission oil

EAUN3780

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 at the intervals specified in the periodic maintenance and lubrication chart. Have a Yamaha dealer change the final transmission oil.

Coolant

EAUS1203

The coolant level should be checked regularly. In addition, the coolant must be changed at the intervals specified in the periodic maintenance chart.

Recommended coolant:

YAMALUBE coolant

Coolant quantity:

Coolant reservoir (max level mark):

0.13 L (0.14 US qt, 0.11 Imp.qt)

Radiator (including all routes):

0.46 L (0.49 US qt, 0.40 Imp.qt)

TIP

If genuine Yamaha coolant is not available, use an ethylene glycol antifreeze containing corrosion inhibitors for aluminum engines and mix with distilled water at a 1:1 ratio.

9

EAUM4331

To check the coolant level

1. Place the vehicle on the center-stand.

Periodic maintenance and adjustment

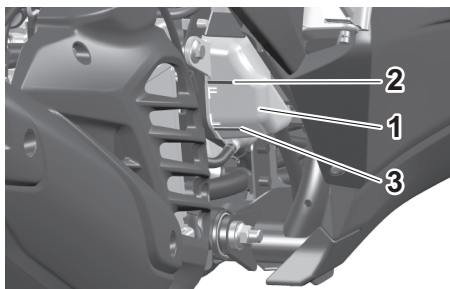
TIP

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

2. Check the coolant level in the coolant reservoir.

TIP

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



1. Coolant reservoir
2. Maximum level mark
3. Minimum level mark

3. If the coolant is at or below the minimum level mark, have a Yamaha dealer add coolant to the reservoir.

Coolant reservoir capacity (up to the maximum level mark):
0.13 L (0.14 US qt, 0.11 Imp.qt)

EAU33032

Changing the coolant

The coolant must be changed at the intervals specified in the periodic maintenance and lubrication chart. Have a Yamaha dealer change the coolant.

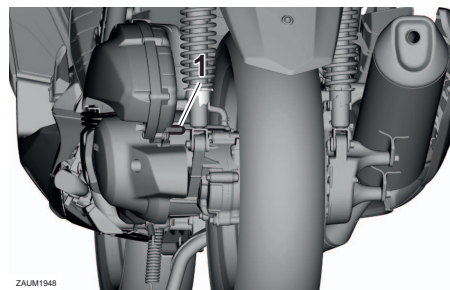
WARNING! Never attempt to remove the radiator cap when the engine is hot. [EWA10382]

Air filter and V-belt case air filter elements

EAU67174

The air filter element should be replaced 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. The air filter check hose and V-belt case air filter check hose must be frequently checked and cleaned if necessary.

Cleaning the air filter check hose



ZAJM1948

1. Air filter check hose

Periodic maintenance and adjustment

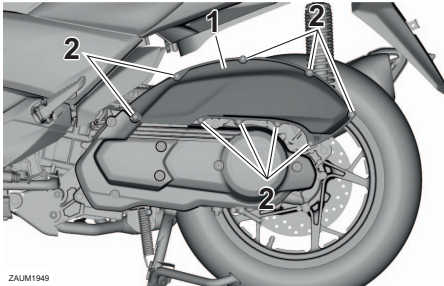
1. Check the hose on the rear side of the air filter case for accumulated dirt or water.
2. If dirt or water is visible, remove the hose from the clamp, clean it, and then install it.

TIP

If dirt or water was found in the check hose, be sure to check the air filter element for excessive dirt or damage and replace it if necessary.

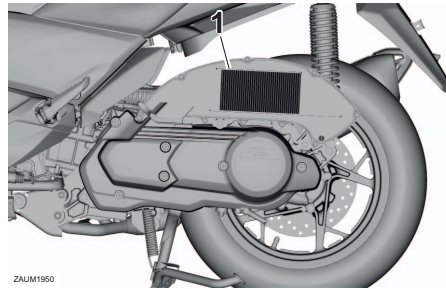
Replacing the air filter element

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



1. Air filter case cover
2. Screw

3. Pull the air filter element out.



1. Air filter element

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

[ECA10482]

ECA21220

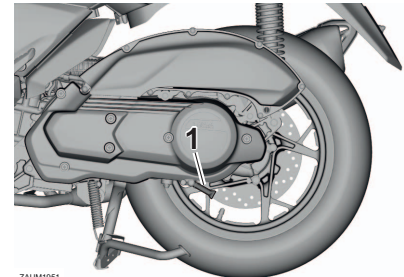
NOTICE

- The air filter element must be replaced at the intervals specified in the periodic maintenance chart.

- The air filter element should be replaced more frequently if you often ride in the rain or dusty areas.
- The air filter cannot be cleaned by blowing it with compressed air. It must be replaced.

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

Cleaning the V-belt case check hose



1. V-belt case check hose

1. Check the hose on the rear side of the V-belt case for accumulated dirt or water.
2. If dirt or water is visible, remove the hose from the clamp, clean it, and then install it.

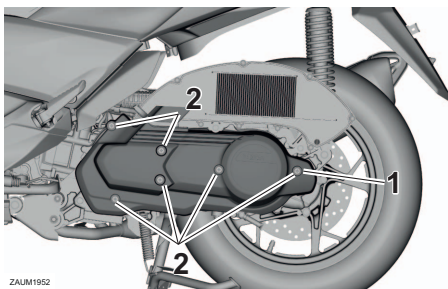
Periodic maintenance and adjustment

TIP

If dirt or water was found in the check hose, be sure to check the V-belt case air filter element for excessive dirt or damage and clean or replace it if necessary.

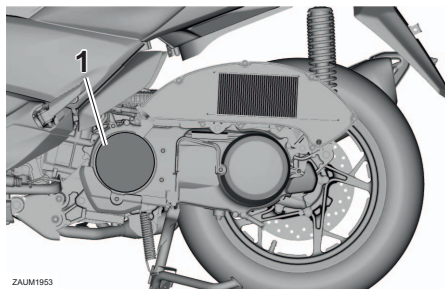
Cleaning the V-belt case air filter element

1. Place the vehicle on the center-stand.
2. Remove the screws, and then pull the V-belt case air filter element cover outward and away from the V-belt case.

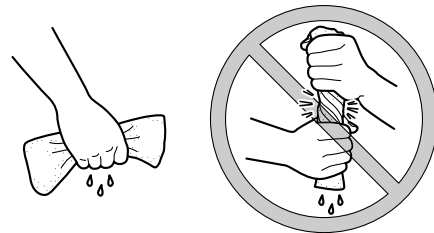


1. V-belt case air filter element cover
2. Screw

3. Pull the V-belt case air filter element out, and then clean it with solvent. After cleaning, remove the remaining solvent by squeezing the element. **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]



1. V-belt case air filter element



4. Apply oil of the recommended type to the entire surface of the sponge material, and then squeeze the excess oil out.

TIP

- The air filter element should be wet but not dripping.
- Check the air filter element for excessive dirt or damage and replace it if necessary.

Recommended oil:

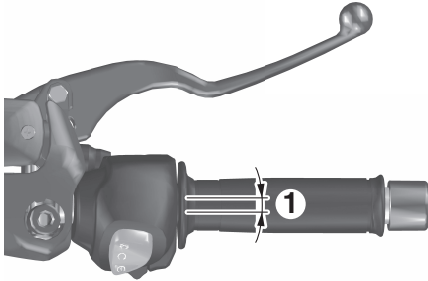
Yamaha foam air filter oil or other quality foam air filter oil

5. Insert the element into the V-belt case.
6. Install the air filter element cover by installing the screws.

Checking the throttle grip free play

EAU21386

Measure the throttle grip free play as shown.



1. Throttle grip free play

Throttle grip free play:
3.0–5.0 mm (0.12–0.20 in)

Periodically check the throttle grip free play and, if necessary, have a Yamaha dealer adjust it.

Valve clearance

EAU21403

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

TIP

This service must be performed when the engine is cold.

Tires

EAU69761

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

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

Cold tire air pressure:

1 person:

Front:

190 kPa (1.90 kgf/cm², 28 psi)

Rear:

220 kPa (2.20 kgf/cm², 32 psi)

2 persons:

Front:

210 kPa (2.10 kgf/cm², 30 psi)

Rear:

250 kPa (2.50 kgf/cm², 36 psi)

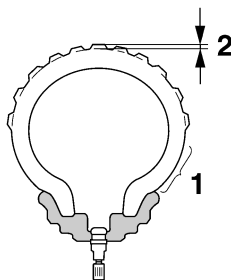
Maximum load:

Vehicle:

163 kg (360 lb)

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

Tire inspection



1. Tire sidewall

2. Tire tread depth

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

Minimum tire tread depth (front and rear):

1.6 mm (0.06 in)

TIP

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

EWA10472

⚠ WARNING

- Have a Yamaha dealer replace excessively worn tires. Besides being illegal, operating the vehicle with excessively worn tires decreases riding stability and can lead to loss of control.
- The replacement of all wheel and brake-related parts, including the tires, should be left to a Yamaha dealer, who has the necessary professional knowledge and experience to do so.
- Ride at moderate speeds after changing a tire since the tire surface must first be “broken in” for it to develop its optimal characteristics.

Tire information

This model is equipped with tubeless tires and rubber 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

⚠ WARNING

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

EWA10512

Periodic maintenance and adjustment

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:

120/70-15 M/C 56S

Manufacturer/model:

MICHELIN/CITY GRIP 2

Rear tire:

Size:

140/70-14 M/C 68S

Manufacturer/model:

MICHELIN/CITY GRIP 2

Cast wheels

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

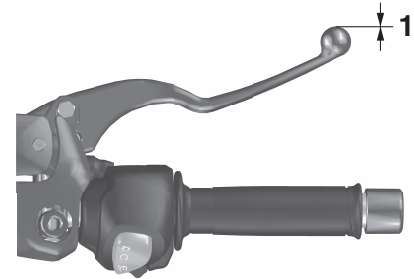
- The wheel rims should be checked for cracks, bends, warp-age or other damage before each ride. If any damage is found, have a Yamaha dealer replace the wheel. Do not attempt even the smallest repair to the wheel. A de-formed or cracked wheel must be replaced.
- The wheel should be balanced whenever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

EAU21963

Checking the front and rear brake lever free play

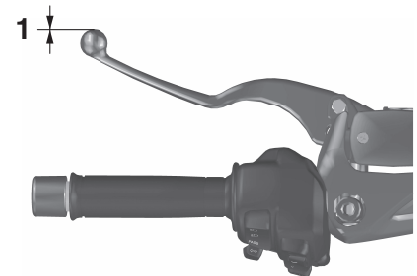
EAU50861

Front



1. No brake lever free play

Rear



1. No brake lever free play

Periodic maintenance and adjustment

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

EWA14212

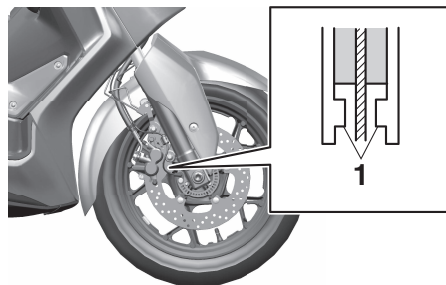
⚠ WARNING

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

Checking the front and rear brake pads

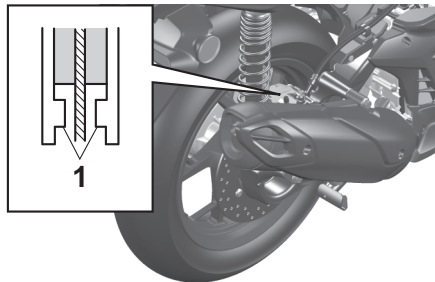
EAU22312

Front brake



1. Brake pad wear indicator

Rear brake



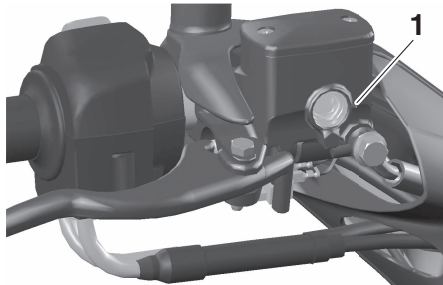
1. Brake pad wear indicator

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

Checking the brake fluid level EAU40262

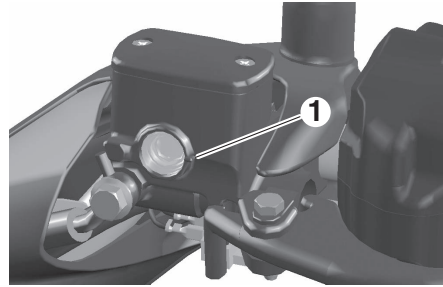
Before riding, check that the brake fluid is above the minimum level mark. Check the brake fluid level with the top of the reservoir level. Replenish the brake fluid if necessary.

Front brake



1. Minimum level mark

Rear brake



1. Minimum level mark

Specified brake fluid:
DOT 4

EWA16011

⚠ WARNING

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

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

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

ECA17641

NOTICE

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

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

Periodic maintenance and adjustment

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

Changing the brake fluid

EAU22734

Have a Yamaha dealer change the brake fluid every 2 years. In addition, have the seals of the master cylinders and brake calipers, as well as the brake hoses replaced at the intervals listed below or sooner if they are damaged or leaking.

- Brake seals: every 2 years
- Brake hoses: every 4 years

EAUU0311

Checking the V-belt

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

Periodic maintenance and adjustment

Checking and lubricating the cables

EAU23098

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

Recommended lubricant:

Yamaha cable lubricant or other suitable cable lubricant

Checking and lubricating the throttle grip and cable

EAU23115

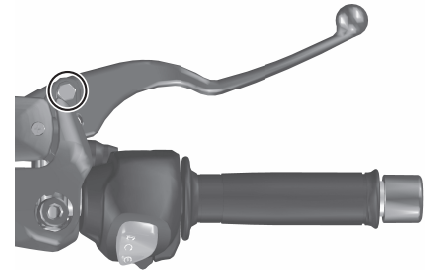
The operation of the throttle grip should be checked before each ride. In addition, the cable should be lubricated by a Yamaha dealer at the intervals specified in the periodic maintenance chart.

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

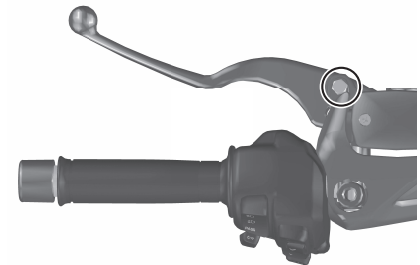
Lubricating the front and rear brake levers

EAU23173

Front brake lever



Rear brake lever



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

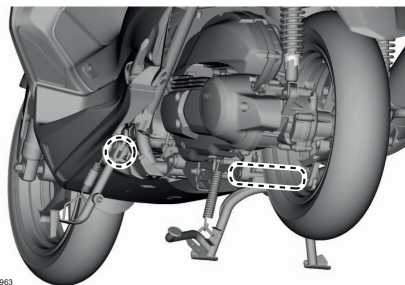
Periodic maintenance and adjustment

Recommended lubricant:
Silicone grease

Checking and lubricating the centerstand and sidestand

EAU23215

Recommended lubricant:
Lithium-soap-based grease



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.

EAU23273

Checking the front fork

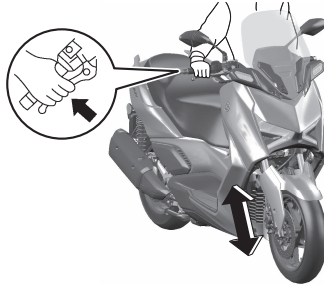
The condition and operation of the front fork must be checked as follows at the intervals specified in the periodic maintenance and lubrication chart.

To check the condition

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

To check the operation

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



ECA10591

NOTICE

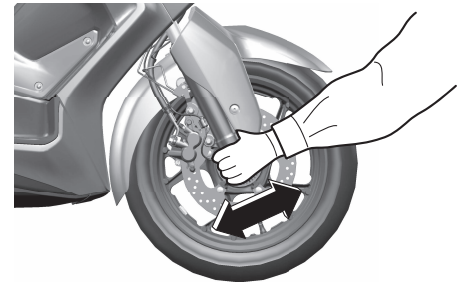
If any damage is found or the front fork does not operate smoothly, have a Yamaha dealer check or repair it.

EAU45512

Checking the steering

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

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



Periodic maintenance and adjustment

Checking the wheel bearings

EAU23292

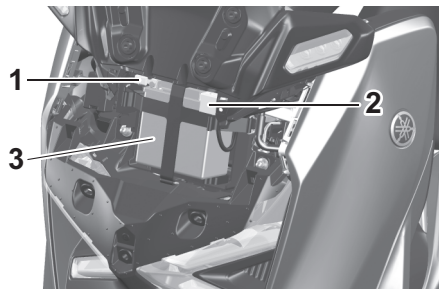


The front and rear wheel bearings must be checked at the intervals specified in the periodic maintenance and lubrication chart. If there is play in the wheel hub or if the wheel does not turn smoothly, have a Yamaha dealer check the wheel bearings.

9

Battery

EAUN4010



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

The battery is located behind panel A. (See page 9-8.)

TIP

To access the battery, also remove the windscreen. (See page 6-18.)

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.

⚠ WARNING

EWA10761

- **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.

Periodic maintenance and adjustment

- **KEEP THIS AND ALL BATTERIES OUT OF THE REACH OF CHILDREN.**

To charge the battery

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

ECA16522

NOTICE

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

To store the battery

1. If the vehicle will not be used for more than one month, remove the battery, fully charge it, and then place it in a cool, dry place.
NOTICE: When removing the battery, be sure to turn the main

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

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

[ECA16842]

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

ECA16531

NOTICE

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

EAUM5030

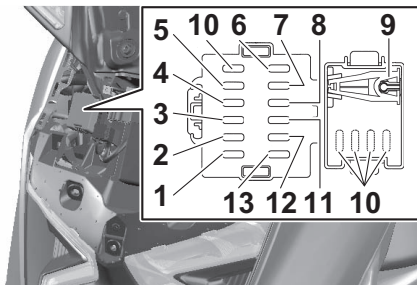
Replacing the fuses

The fuse box, which contain the fuses for the individual circuits, is located under panel A. (See page 9-8.)



1. Fuse box

Periodic maintenance and adjustment



1. Backup fuse
2. Fuel injection system fuse
3. Main fuse
4. ABS motor fuse
5. ABS solenoid fuse
6. Smart key system fuse
7. Terminal fuse 1
8. Grip warmer fuse
9. Fuse puller
10. Spare fuse
11. Signaling system fuse
12. ABS control unit fuse
13. Ignition fuse

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. Remove the panel A. (See page 9-8.)

3. 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:
30.0 A
- Terminal fuse 1:
2.0 A
- Grip warmer fuse:
7.5 A
- Signaling system fuse:
10.0 A
- Ignition fuse:
10.0 A
- Smart key system fuse:
2.0 A (YP125RA)
- ABS motor fuse:
30.0 A
- Fuel injection system fuse:
7.5 A (YP125RA)
- ABS solenoid fuse:
15.0 A
- ABS control unit fuse:
2.0 A
- Backup fuse:
7.5 A

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

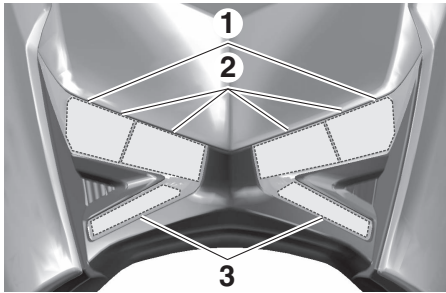
TIP

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

5. Install the panel A. (See page 9-8.)

Vehicle lights

EAU80380



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

Except for the license plate light bulb, this model's lights are all LED. If an LED light does not come on, check the fuses and then have a Yamaha dealer check the vehicle. If the license plate light does not come on, check and replace the bulb. (See page 9-27.)

ECA16581

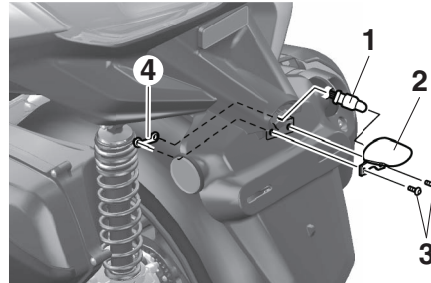
NOTICE

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

Replacing the license plate light bulb

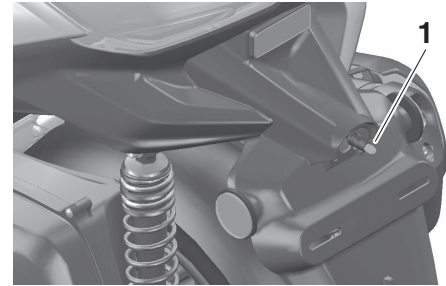
EAU78560

1. Remove the license plate light unit by removing the bolts and plate, and then remove the license plate light bulb socket (together with the bulb) by pulling it out.



1. License plate light bulb socket
2. License plate light unit
3. Bolt
4. Plate

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



1. License plate light bulb

3. Insert a new bulb into the socket.
4. Install the socket (together with the bulb) by pushing it in, and then install the license plate light unit by installing the plate and bolts.

Periodic maintenance and adjustment

Troubleshooting

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.



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

EAU60701

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

Smart key system troubleshooting

EAU76551

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

- Is the smart key turned on? (See page 3-5.)
- Is the smart key battery discharged? (See page 3-6.)
- Is the smart key battery installed correctly? (See page 3-6.)
- Is the smart key being used in a location with strong radio waves or other electromagnetic noise? (See page 3-1.)
- 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 9-24.)

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 9-32 for information on starting the engine without the smart key.

EAUM5040

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 "ON"?
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

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 “OFF”?

If the Stop and Start System switch is set to “OFF” 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.

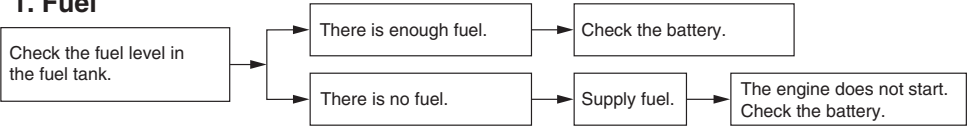
If the engine still does not restart after you checked the preceding conditions, have a Yamaha dealer check the vehicle as soon as possible.

Periodic maintenance and adjustment

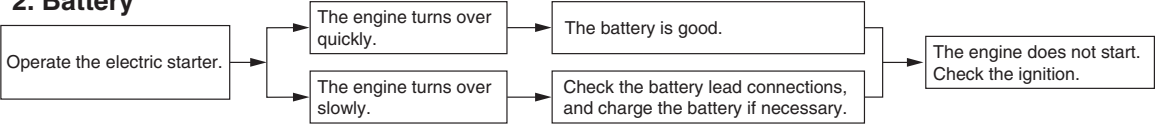
EAU86350

Troubleshooting chart

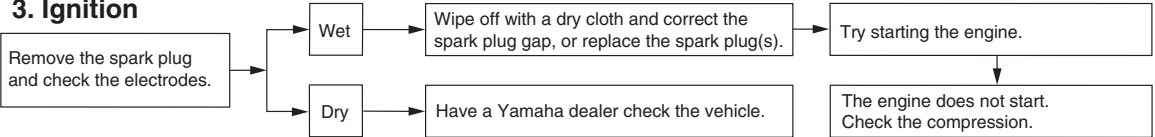
1. Fuel



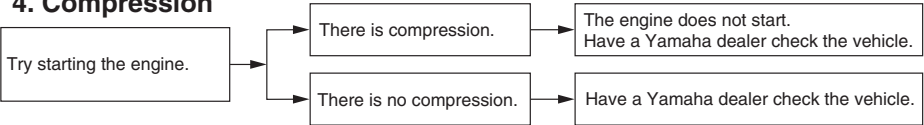
2. Battery



3. Ignition



4. Compression



Periodic maintenance and adjustment

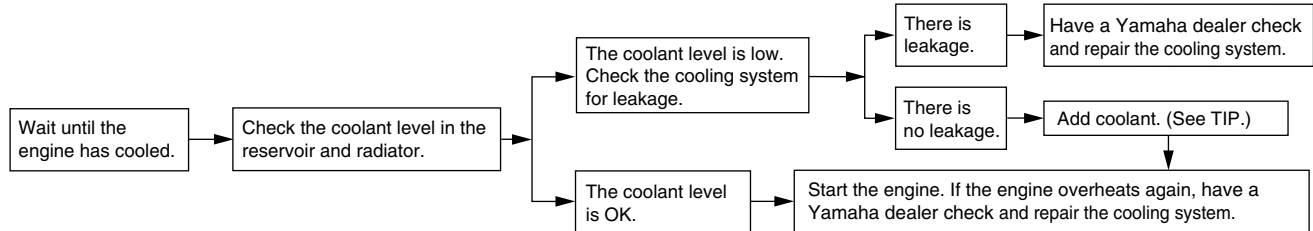
EAU86420

Engine overheating

EWAT1041

WARNING

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



TIP

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

Periodic maintenance and adjustment

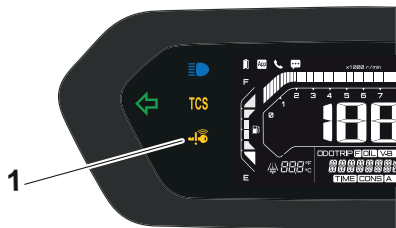
EAU76561

Emergency mode

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

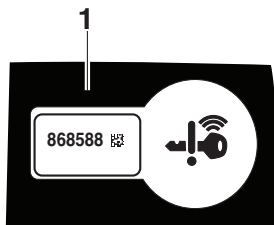
To operate the vehicle in emergency mode

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



1. Smart key system indicator light "🔑"

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



1. Identification number card

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

For example, if the identification number is 123456:

Push and hold the knob.

The smart key system indicator light will start to flash.



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



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



Push and hold the knob again.



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

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

EAU96754

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

Special care in winter

ECA28181

NOTICE

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

TIP

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

ECA26280

NOTICE

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

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

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

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

Before washing

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

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

[ECA26290]

Washing

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

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

3. For windscreen-equipped vehicles: Clean the windscreen with a soft towel or sponge dampened with water and a pH neutral detergent. If necessary, use a high-quality windscreen cleaner or polish for motorcycles. **NOTICE: Never use any strong chemicals to clean the windscreen. Additionally, some cleaning compounds for plastic may scratch the windscreen, so be sure to test all cleaning products before general application.** [ECA27860]
4. Rinse off thoroughly with clean water. Be sure to remove all detergent residues, as they can be harmful to plastic parts.

After washing

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

Scooter care and storage

3. Use a chrome polish to shine chrome, aluminum, and stainless steel parts. Often the thermally induced discoloring of stainless steel exhaust systems can be removed through polishing.
4. Apply a corrosion protection spray on all metal parts including chrome or nickel-plated surfaces. **WARNING! Do not apply silicone or oil spray to seats, hand grips, rubber foot pegs or tire treads. Otherwise these parts will become slippery, which could cause loss of control. Thoroughly clean the surfaces of these parts before operating the vehicle.** [EWA20651]
5. Treat rubber, vinyl, and unpainted plastic parts with a suitable care product.
6. Touch up minor paint damage caused by stones, etc.
7. Wax all painted surfaces using a non-abrasive wax or use a detail spray for motorcycles.
8. When finished cleaning, start the engine and let it idle for several minutes to help dry any remaining moisture.
9. If the headlight lens has fogged up, start the engine and turn on the headlight to help remove the moisture.
10. Let the vehicle dry completely before storing or covering it.

ECA26320

NOTICE

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

EWA20660

WARNING

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

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

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

Storage

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

EAU83472

ECA21170

NOTICE

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

Long term storage

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

1. Make all necessary repairs and perform any outstanding maintenance.
 2. Follow all instructions in the Care section of this chapter.
 3. Fill up the fuel tank, adding fuel stabilizer according to product instructions. Run the engine for 5 minutes to distribute treated fuel through the fuel system.
 4. For vehicles equipped with a fuel cock: Turn the fuel cock lever to the off position.
 5. For vehicles with a carburetor: To prevent fuel deposits from building up, drain the fuel in the carburetor float chamber into a clean container. Retighten the drain bolt and pour the fuel back into the fuel tank.
 6. Use a quality engine fogging oil according to product instructions to protect internal engine components from corrosion. If engine fogging oil is not available, perform the following steps for each cylinder:
 - a. Remove the spark plug cap and spark plug.
 - b. Pour a teaspoonful of engine oil into the spark plug bore.
 - c. Install the spark plug cap onto the spark plug, and then place the spark plug on the cylinder head so that the electrodes are grounded. (This will limit sparking during the next step.)
 - d. Turn the engine over several times with the starter. (This will coat the cylinder wall with oil.)
- WARNING! To prevent damage or injury from sparking, make sure to ground the spark plug electrodes while turning the engine over.**
- [EWA10952]
- e. Remove the spark plug cap from the spark plug, and then install the spark plug and the spark plug cap.
 7. Lubricate all control cables, pivots, levers and pedals, as well as the sidestand and centerstand (if equipped).
 8. Check and correct the tire air pressure, and then lift the vehicle so that all wheels are off the ground. Otherwise, turn the

Scooter care and storage

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

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

TIP

- If the battery will be removed, charge it once a month and store it in a temperate location between 0-30 °C (32-90 °F).
 - See page 9-24 for more information on charging and storing the battery.
-

Dimensions:

Overall length:
2180 mm (85.8 in)
Overall width:
795 mm (31.3 in)
Overall height:
1410/1460 mm (55.5/57.5 in)
Seat height:
800 mm (31.5 in)
Wheelbase:
1570 mm (61.8 in)
Ground clearance:
140 mm (5.51 in)
Minimum turning radius:
2.5 m (8.20 ft)

Weight:

Curb weight:
167 kg (368 lb)

Engine:

Combustion cycle:
4-stroke
Cooling system:
Liquid cooled
Valve train:
SOHC
Number of cylinders:
Single cylinder
Displacement:
125 cm³
Bore × stroke:
52.0 × 58.7 mm (2.05 × 2.31 in)
Starting system:
Electric starter

Engine oil:

Recommended brand:



SAE viscosity grades:
10W-40
Recommended engine oil grade:
API service SG type or higher, JASO
standard MA or MB
Engine oil quantity:
Oil change:
0.90 L (0.95 US qt, 0.79 Imp.qt)

Final transmission oil:

Type:
Motor oil SAE 10W-40 type SG or higher
Quantity:
0.10 L (0.11 US qt, 0.09 Imp.qt)

Coolant quantity:

Coolant reservoir (up to the maximum level mark):
0.13 L (0.14 US qt, 0.11 Imp.qt)
Radiator (including all routes):
0.46 L (0.49 US qt, 0.40 Imp.qt)

Fuel:

Recommended fuel:
Unleaded gasoline (E10 acceptable)
Octane number (RON):
90
Fuel tank capacity:
13 L (3.4 US gal, 2.9 Imp.gal)
Fuel reserve amount:
2.4 L (0.63 US gal, 0.53 Imp.gal)

Fuel injection:

Throttle body:
ID mark:
B2T1

Front tire:

Type:
Tubeless
Size:
120/70-15 M/C 56S
Manufacturer/model:
MICHELIN/CITY GRIP 2

Rear tire:

Type:
Tubeless
Size:
140/70-14 M/C 68S
Manufacturer/model:
MICHELIN/CITY GRIP 2

Loading:

Maximum load:
163 kg (360 lb)
(Total weight of rider, passenger, cargo and accessories)

Front brake:

Type:
Hydraulic single disc brake

Rear brake:

Type:
Hydraulic single disc brake

Front suspension:

Type:
Telescopic fork

Specifications

Rear suspension:

Type:

Unit swing

Electrical system:

System voltage:

12 V

Battery:

Model:

YTZ7V

Voltage, capacity:

12 V, 6.0 Ah (10 HR)

Bulb wattage:

Headlight:

LED

Brake/tail light:

LED

Front turn signal light:

LED

Rear turn signal light:

LED

Auxiliary light:

LED

License plate light:

5.0 W

Identification numbers

EAU53562

Record the vehicle identification number, engine serial number, and the model label information in the spaces provided below. These identification numbers are needed when registering the vehicle with the authorities in your area and when ordering spare parts from a Yamaha dealer.

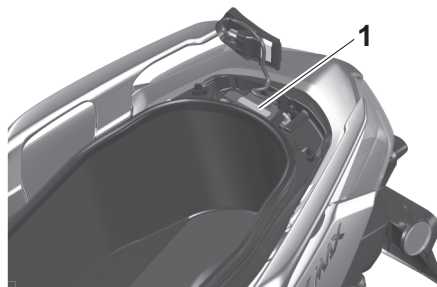
VEHICLE IDENTIFICATION NUMBER:

ENGINE SERIAL NUMBER:

MODEL LABEL INFORMATION:

Vehicle identification number

EAU26411



1. Vehicle identification number

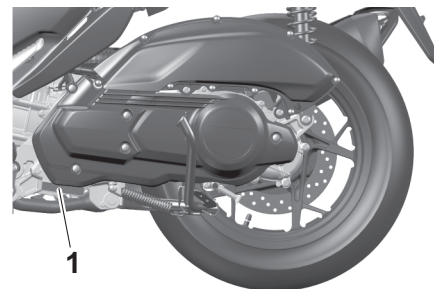
The vehicle identification number is stamped into the frame.

TIP

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

Engine serial number

EAU26442

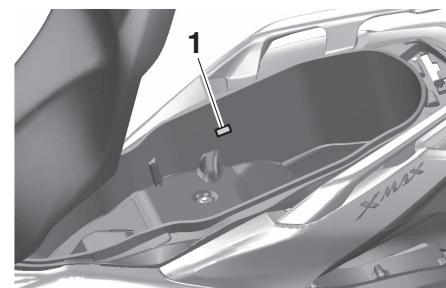


1. Engine serial number

The engine serial number is stamped into the crankcase.

Model label

EAU26501

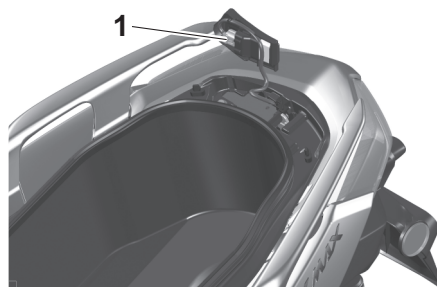


1. Model label

Consumer information

The model label is affixed to the inside of the rear storage compartment. (See page 6-16.) Record the information on this label in the space provided. This information will be needed when ordering spare parts from a Yamaha dealer.

Diagnostic connector



1. Diagnostic connector

The diagnostic connector is located as shown.

EAU69910

EAU85300

Vehicle data recording

This model's ECU stores certain vehicle data to assist in the diagnosis of malfunctions and for research, statistical analysis and development purposes.

Although the sensors and recorded data will vary by model, the main data points are:

- Vehicle status and engine performance data
- Fuel-injection and emission-related data

This data will be uploaded only when a special Yamaha diagnostic tool is attached to the vehicle, such as when maintenance checks or service procedures are performed.

Vehicle data uploaded will be handled appropriately according to the following Privacy Policy.

Privacy Policy

<https://www.yamaha-motor.eu/en/privacy/privacy-policy/>

Yamaha will not disclose this data to a third party except in the following cases. In addition, Yamaha may provide vehicle data to a contractor in order to outsource services related to the handling of vehicle data. Even in this case, Yamaha will require the contractor to properly handle the vehicle data we provided and Yamaha will appropriately manage the data.

- With the consent of the vehicle owner
- Where obligated by law
- For use by Yamaha in litigation
- When the data is not related to an individual vehicle nor owner

Index

A

- ABS6-10
- ABS warning light6-2
- Acceleration and deceleration8-3
- Activating the Stop and Start System4-1
- Air filter and V-belt case air filter elements9-12

B

- Battery9-24
- Brake fluid, changing9-20
- Brake fluid level, checking9-19
- Brake lever, front6-10
- Brake lever, rear6-10
- Brake levers, lubricating9-21
- Braking8-4

C

- Cables, checking and lubricating9-21
- Canister9-9
- Care10-1
- Catalytic converter6-16
- CCU (Communication Control Unit)5-1
- Centerstand and sidestand, checking and lubricating9-22
- Coolant9-11
- Coolant temperature warning light6-1

D

- Data recording, vehicle12-2
- DC connectors6-21
- Diagnostic connector12-2
- Dimmer/Pass switch6-8
- Display6-3

E

- Emergency mode9-32
- Engine break-in8-1

- Engine oil9-10
- Engine overheating9-31
- Engine serial number12-1

F

- Final transmission oil9-11
- Front and rear brake lever free play, checking9-17
- Front and rear brake pads, checking ... 9-18
- Front fork, checking9-23
- Fuel6-14
- Fuel consumption, tips for reducing8-4
- Fuel tank cap6-13
- Fuel tank overflow hose6-15
- Fuses, replacing9-25

H

- Handlebar position, adjusting6-20
- Handlebar switches6-8
- Hazard switch6-9
- High beam indicator light6-1
- Horn switch6-8

I

- Identification numbers12-1
- Ignition circuit cut-off system6-22
- Indicator lights and warning lights6-1

K

- Key, handling of smart and mechanical keys3-3

L

- License plate light bulb, replacing9-27

M

- Main switch3-7
- Maintenance and lubrication, periodic ... 9-4
- Maintenance, emission control system9-3

- Malfunction indicator light (MIL)6-1
- Matte color, caution10-1
- Model label12-1

O

- Operating range of the smart key system3-2

P

- Panel, removing and installing9-8
- Parking8-5
- Part locations2-1
- Power outlet6-21
- Precautions when using the Stop and Start System4-3

S

- Safe-riding points1-5
- Safety information1-1
- SEL/RES switch6-9
- Shock absorber assemblies, adjusting6-20
- Sidestand6-22
- Smart key3-5
- Smart key battery, replacing3-6
- Smart key system3-1
- Smart key system indicator light6-2
- Smart key system, troubleshooting9-28
- Spark plug, checking9-8
- Special features5-1
- Specifications11-1
- Starting off8-3
- Starting the engine8-2
- Steering, checking9-23
- Stop and Start System4-1
- Stop and Start System indicator light6-3
- Stop and Start System operation4-1

Stop and Start System switch.....	6-9
Stop and Start System	
troubleshooting	9-28
Stop/Run/Start switch	6-9
Storage	10-4
Storage compartments.....	6-16

T

Throttle grip and cable, checking	
and lubricating	9-21
Throttle grip free play, checking.....	9-15
Tires	9-15
Tool kit.....	9-2
Traction control system.....	6-11
Traction control system indicator light ...	6-2
Troubleshooting.....	9-28
Troubleshooting chart	9-30
Turn signal indicator lights	6-1
Turn signal switch.....	6-8

V

Valve clearance	9-15
V-belt, checking.....	9-20
Vehicle identification number	12-1
Vehicle lights	9-27

W

Wheel bearings, checking	9-24
Wheels	9-17
Windscreen.....	6-18

Y

Yamalube.....	9-11
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