



OWNER'S MANUAL

TMAX

XP500

5GJ-28199-EV

Welcome to the Yamaha world of motorcycling!

As the owner of an XP500, you are benefiting from Yamaha's vast experience and newest technology regarding the design and manufacture of high-quality products, which have earned Yamaha a reputation for dependability.

Please take the time to read this manual thoroughly, so as to enjoy all advantages of your XP500. 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!

IMPORTANT MANUAL INFORMATION

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



The Safety Alert Symbol means **ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!**



Failure to follow **WARNING** instructions could result in severe injury or death to the scooter operator, a bystander, or a person inspecting or repairing the scooter.



A **CAUTION** indicates special precautions that must be taken to avoid damage to the scooter.



A **NOTE** provides key information to make procedures easier or clearer.

NOTE: _____

- This manual should be considered a permanent part of this scooter and should remain with it even if the scooter is subsequently sold.
 - 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 you have any questions concerning this manual, please consult your Yamaha dealer.
-

IMPORTANT MANUAL INFORMATION

EW000002

⚠️ WARNING

PLEASE READ THIS MANUAL CAREFULLY AND COMPLETELY BEFORE OPERATING THIS SCOOTER.

EAU03337

**XP500
OWNER'S MANUAL
© 2001 by Yamaha Motor Co., Ltd.
1st Edition, May 2001
All rights reserved.
Any reprinting or unauthorized use
without the written permission of
Yamaha Motor Co., Ltd.
is expressly prohibited.
Printed in Japan.**

TABLE OF CONTENTS

1 GIVE SAFETY THE RIGHT OF WAY

1

2 DESCRIPTION

2

3 INSTRUMENT AND CONTROL FUNCTIONS

3

4 PRE-OPERATION CHECKS

4

5 OPERATION AND IMPORTANT RIDING POINTS

5

6 PERIODIC MAINTENANCE AND MINOR REPAIR

6

7 SCOOTER CARE AND STORAGE

7

8 SPECIFICATIONS

8

9 CONSUMER INFORMATION

9

INDEX



GIVE SAFETY THE RIGHT OF WAY

GIVE SAFETY THE RIGHT OF WAY	1-1
Further safe-riding points.....	1-2



GIVE SAFETY THE RIGHT OF WAY

1

Scooters are fascinating vehicles, which can give you an unsurpassed feeling of power and freedom. However, they also impose certain limits, which you must accept; even the best scooter does not ignore the laws of physics.

Regular care and maintenance are essential for preserving value and operating condition of your scooter. Moreover, what is true for the scooter is also true for the rider: good performance depends on being in good shape. Riding under the influence of medication, drugs and alcohol is, of course, out of the question. Scooter riders—more than car drivers—must always be at their mental and physical best. Under the influence of even small amounts of alcohol, there is a tendency to take dangerous risks.

Protective clothing is as essential for the scooter rider as seat belts are for car drivers and passengers. Always wear a complete motorcycle suit (whether made of leather or tear-resistant synthetic materials with protectors), sturdy boots, motorcycle gloves and a properly fitting helmet. Optimum protective wear, however, should not encourage carelessness. Although full-coverage helmets and suits, in particular, create an illusion of total safety and protection, motorcyclists will always be vulnerable. Riders who lack critical self-control run the risk of going too fast and are apt to take chances. This is even more dangerous in wet weather. The good motorcyclist rides safely, predictably and defensively—avoiding all dangers, including those caused by others.

Enjoy your ride!



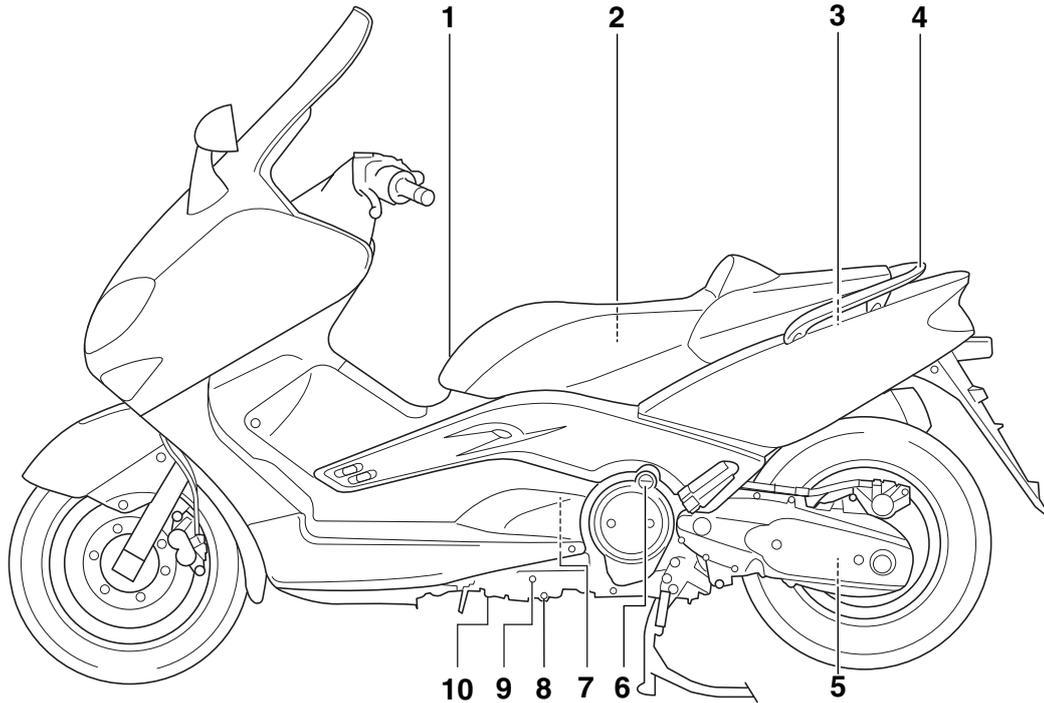
Further safe-riding points

- Be sure to signal clearly when making turns.
- Braking can be extremely difficult on a wet road. Avoid hard braking, because the scooter could slide. Apply the brakes slowly when stopping on a wet surface.
- Slow down as you approach a corner or turn. Once you have completed a turn, accelerate slowly.
- Be careful when passing parked cars. A driver might not see you and open a door in your path.
- Railroad crossings, streetcar rails, iron plates on road construction sites, and manhole covers become extremely slippery when wet. Slow down and cross them with caution. Keep the scooter upright, otherwise it could slide out from under you.
- The brake pads could get wet when you wash the scooter. After washing the scooter, check the brakes before riding.
- Always wear a helmet, gloves, trousers (tapered around the cuff and ankle so they do not flap), and a bright colored jacket.
- Do not carry too much luggage on the scooter. An overloaded scooter is unstable.

Left view	2-1
Right view	2-2
Controls and instruments.....	2-3

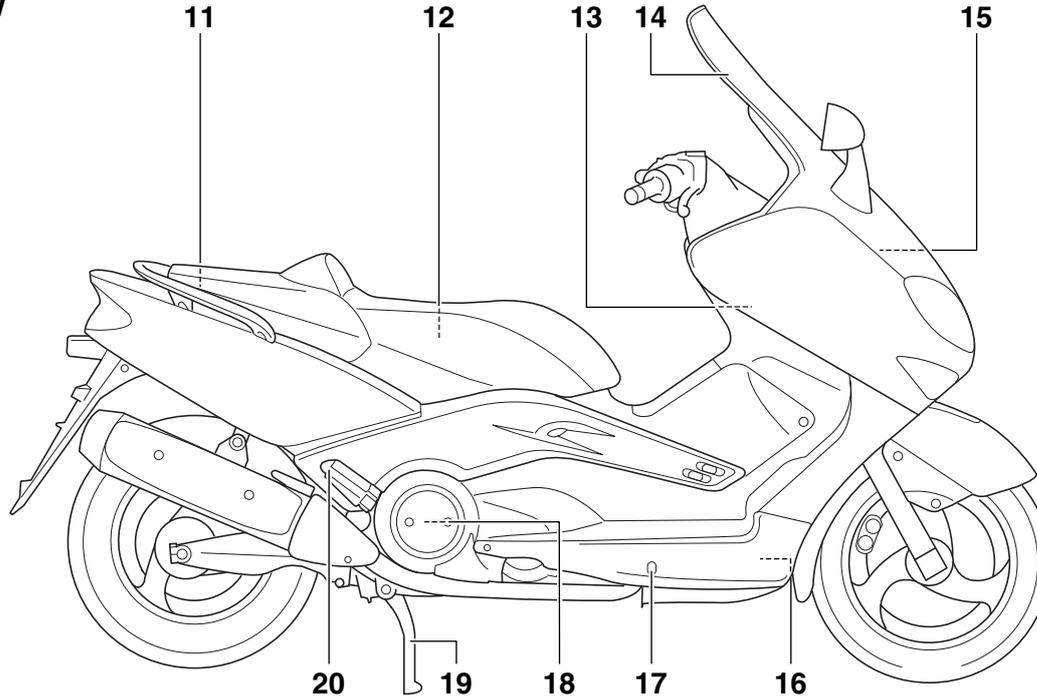
DESCRIPTION

Left view



- | | | | |
|-------------------------------|-------------|-------------------------------------|-------------|
| 1. Fuel tank cap | (page 3-8) | 6. Engine oil filler cap | (page 6-13) |
| 2. Rear storage compartment | (page 3-12) | 7. V-Belt air filter element (left) | |
| 3. Helmet holder | (page 3-11) | 8. Engine oil drain bolt | (page 6-12) |
| 4. Grab bar | (page 5-2) | 9. Engine oil level check window | (page 6-12) |
| 5. Chain drive oil filler cap | (page 6-16) | 10. Oil filter cartridge | (page 6-13) |

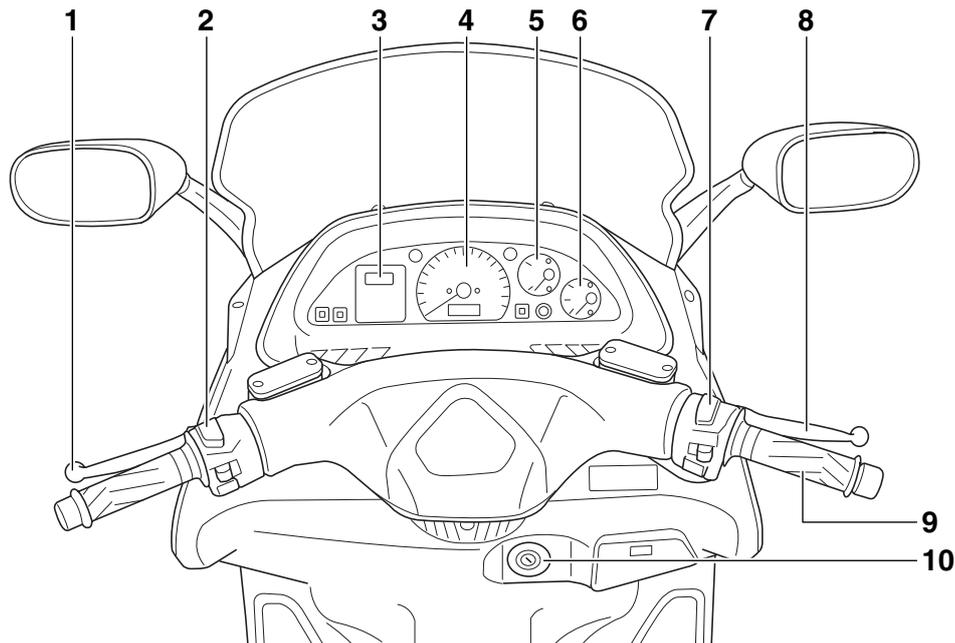
Right view



- | | | | |
|-------------------------------|-------------------|---------------------------------------|-------------|
| 11. Battery (Fuses) | (page 6-32, 6-34) | 16. Radiator | |
| 12. Owner's tool kit | (page 6-1) | 17. Coolant level check window | (page 6-17) |
| 13. Front storage compartment | (page 3-12) | 18. V-Belt air filter element (right) | |
| 14. Windshield | | 19. Centerstand | (page 6-30) |
| 15. Air filter element | (page 6-19) | 20. Passenger footrest | |

DESCRIPTION

Controls and instruments



- 1. Rear brake lever
- 2. Left handlebar switches
- 3. Clock
- 4. Speedometer unit
- 5. Coolant temperature gauge

- (page 3-8)
- (page 3-6)
- (page 3-5)
- (page 3-3)
- (page 3-4)

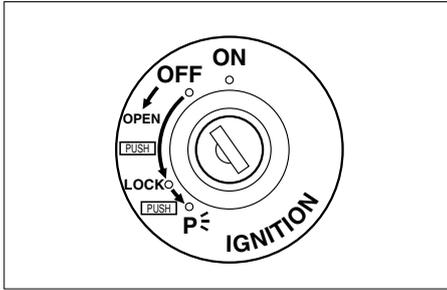
- 6. Fuel gauge
- 7. Right handlebar switches
- 8. Front brake lever
- 9. Throttle grip
- 10. Main switch/steering lock

- (page 3-4)
- (page 3-7)
- (page 3-7)
- (page 6-22, 6-29)
- (page 3-1)

INSTRUMENT AND CONTROL FUNCTIONS

Main switch/steering lock.....	3-1
Indicator lights	3-2
Speedometer unit	3-3
Fuel gauge.....	3-4
Coolant temperature gauge.....	3-4
Clock.....	3-5
Anti-theft alarm (optional)	3-5
Self-diagnosis device.....	3-6
Handlebar switches	3-6
Front brake lever	3-7
Rear brake lever	3-8
Fuel tank cap	3-8
Fuel.....	3-9
Seat	3-9
Adjusting the rider backrest	3-10
Helmet holder	3-11
Storage compartments	3-12
Sidestand.....	3-12
Ignition circuit cut-off system	3-13

INSTRUMENT AND CONTROL FUNCTIONS



3

Main switch/steering lock

EAU00029

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

ON

EAU00036

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

EAU00038

OFF

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

EAU00040

LOCK

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

To lock the steering

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

To unlock the steering

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

EW000016

⚠ WARNING

Never turn the key to “OFF” or “LOCK” while the scooter is moving, otherwise the electrical systems will be switched off, which may result in loss of control or an accident. Make sure that the scooter is stopped before turning the key to “OFF” or “LOCK”.

EAU03733

P (Parking)

The steering is locked, and the tail-light, license light and auxiliary light are on, but all other electrical systems are off. The key can be removed.

To turn the main switch to “P”:

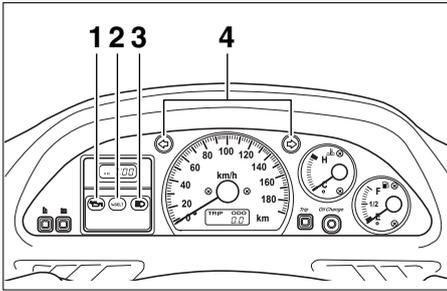
1. Turn the key to “LOCK”.
2. Slightly turn the key counterclockwise until it stops.
3. While still turning the key counterclockwise, push it in until it snaps into place.

ECA00043

CAUTION:

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

INSTRUMENT AND CONTROL FUNCTIONS



1. Oil change indicator light “”
2. V-Belt replacement indicator light “V-BELT”
3. High beam indicator light “”
4. Turn signal indicator lights “”/“”

EAU00056

Indicator lights

EAU03797

Oil change indicator light “”

This indicator light comes on at the initial 1,000 km, then at 5,000 km and every 5,000 km thereafter to indicate that the engine oil should be changed.

After changing the engine oil, reset the oil change indicator light. (See page 6-15 for the resetting procedure.)

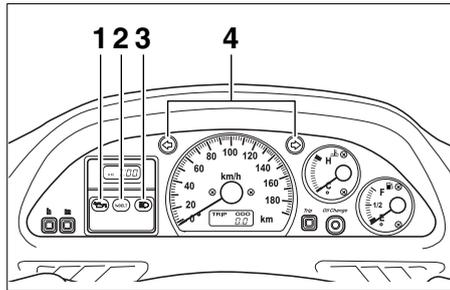
If the engine oil is changed before the oil change indicator comes on (i.e. before the periodic oil change interval has been reached), the indicator light must be reset after the oil change for the next periodic oil change to be indicated at the correct time. (See page 6-15 for the resetting procedure.)

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

1. Set the engine stop switch to “” and turn the key to “ON”.
2. Check that the indicator comes on for a few seconds and then goes off.
3. If the indicator light does not come on, have a Yamaha dealer check the electrical circuit.

NOTE: _____
The oil change indicator light may flash when the engine is revved with the scooter on the centerstand, but this does not indicate a malfunction.

INSTRUMENT AND CONTROL FUNCTIONS



1. Oil change indicator light “”
2. V-Belt replacement indicator light “V-BELT”
3. High beam indicator light “”
4. Turn signal indicator lights “”/“”

EAU03798

V-belt replacement indicator light “V-Belt”

This indicator light comes on when the V-belt needs to be replaced.

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

1. Turn the key to “ON” and set the engine stop switch to “”.
2. If the indicator light does not come on, have a Yamaha dealer check the electrical circuit.

EAU00063

High beam indicator light “”

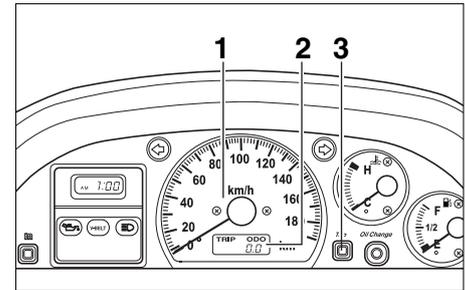
This indicator light comes on when the high beam of the headlight is switched on.

EAU03299

Turn signal indicator lights

“”/“”

The corresponding indicator light flashes when the turn signal switch is pushed to the left or right.



1. Speedometer
2. Odometer/tripmeter
3. “TRIP” button

EAU01586

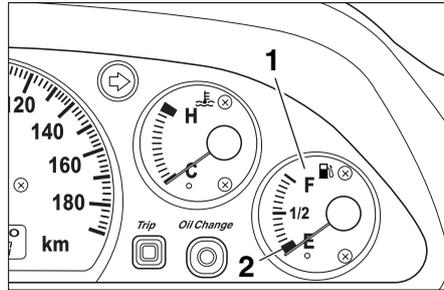
Speedometer unit

The speedometer unit is equipped with a speedometer, an odometer and a tripmeter. The speedometer shows riding speed. The odometer shows the total distance traveled. The tripmeter shows the distance traveled since it was last set to zero.

Pushing the “TRIP” button switches the display between the odometer mode “ODO” and the tripmeter mode “TRIP”. To reset the tripmeter, enter the “TRIP” mode, and then hold down

INSTRUMENT AND CONTROL FUNCTIONS

the “TRIP” button for at least one second. The tripmeter can be used together with the fuel gauge to estimate the distance that can be traveled with a full tank of fuel. This information will enable you to plan future fuel stops.



1. Fuel gauge
2. Red line

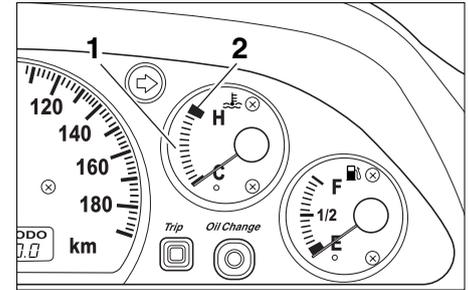
EAU02950

Fuel gauge

The fuel gauge indicates the amount of fuel in the fuel tank. The needle moves towards “E” (Empty) as the fuel level decreases. When the needle reaches the red line, refuel as soon as possible.

NOTE: _____

Do not allow the fuel tank to empty itself completely.



1. Coolant temperature gauge
2. Red mark

EAU03124

Coolant temperature gauge

This gauge indicates the coolant temperature when the main switch is on. The engine operating temperature will vary with changes in weather and engine load. If the needle points to the red mark, stop your scooter and let the engine cool. (See page 6-38 for details.)

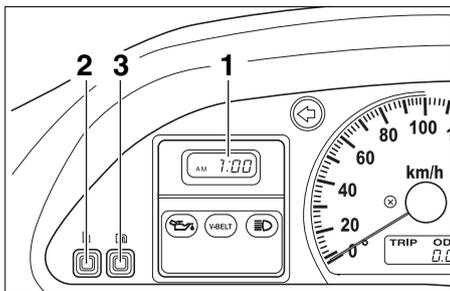
EC000002

CAUTION: _____

Do not operate the engine if it is overheated.

INSTRUMENT AND CONTROL FUNCTIONS

EAU00109



1. Digital clock
2. Hour setting button "h"
3. Minute setting button "m"

EAU03800

Clock

The digital clock shows the time regardless of the main switch position.

To set the clock:

1. Turn the key to "ON".
2. Push or hold the hour setting button "h" to change the hours.
3. Push or hold the minute setting button "m" to change the minutes.

NOTE: _____
To set the clock after the power source has been cut, first set the time to 1:00 AM, and then set the clock to the correct time.

Anti-theft alarm (optional)

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

INSTRUMENT AND CONTROL FUNCTIONS

EAU003840

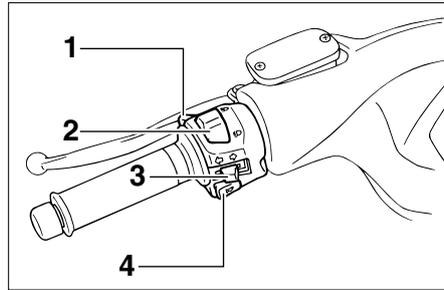
Self-diagnosis device

This model is equipped with a self-diagnosis device for the throttle position sensor, the speed sensor, and the overturn switch. If any of those circuits are defective, the oil change indicator light will flash.

If the indicator light flashes, have a Yamaha dealer check the scooter as soon as possible.

NOTE:

The oil change indicator light may flash when the engine is revved with the scooter on the centerstand, but this does not indicate a malfunction.



1. Pass switch "PASS"
2. Dimmer switch
3. Turn signal switch
4. Horn switch "🔔"

EAU00118

Handlebar switches

EAU00120

Pass switch "PASS"

Press this switch to flash the headlight.

EAU00121

Dimmer switch

Set this switch to "☰D" for the high beam and to "☷D" for the low beam.

EAU00127

Turn signal switch

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

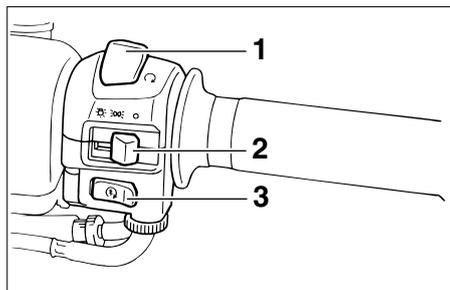
3

EAU00129

Horn switch "🔔"

Press this switch to sound the horn.

INSTRUMENT AND CONTROL FUNCTIONS



1. Engine stop switch
2. Light switch
3. Start switch “”

EAU00138

Engine stop switch

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

EAU00134

Light switch

Set this switch to “” to turn on the auxiliary light, meter lighting and taillight. Set the switch to “” to turn on the headlight also.

EAU03801

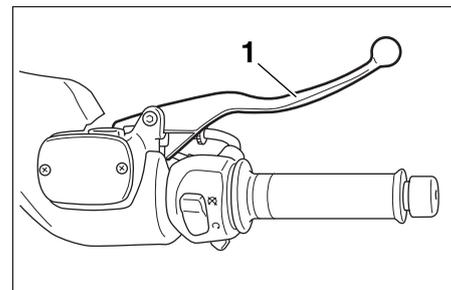
Start switch “”

With the sidestand up, push this switch while applying the front or rear brake to crank the engine with the starter.

EC000005

CAUTION:

See page 5-1 for starting instructions prior to starting the engine.



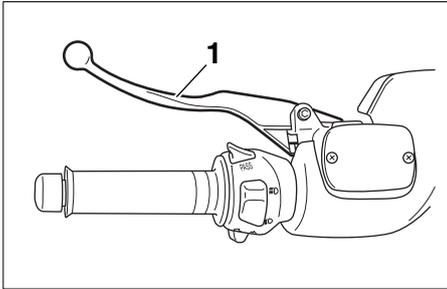
1. Front brake lever

EAU03882

Front brake lever

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

INSTRUMENT AND CONTROL FUNCTIONS

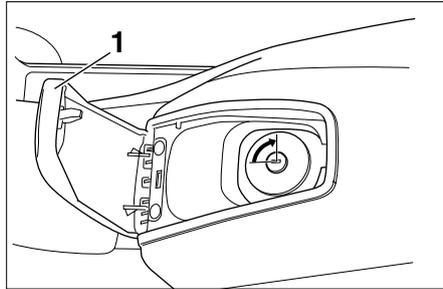


1. Rear brake lever

EAU00163

Rear brake lever

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



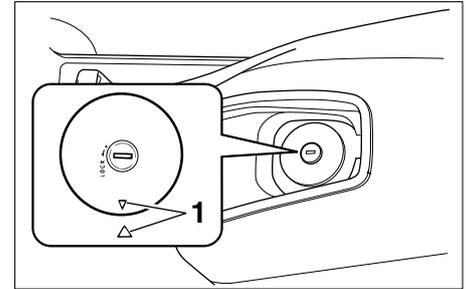
1. Lid

EAU03881

Fuel tank cap

To remove the fuel tank cap

1. Open the lid by pulling the lever up.
2. Insert the key into the lock and turn it clockwise. The lock will be released and the fuel tank cap can be removed.



1. Match marks

To install the fuel tank cap

1. Align the match marks, insert the fuel tank cap into the tank opening, and then push down on the cap.
2. Turn the key counterclockwise to the original position, and then remove it.
3. Close the lid.

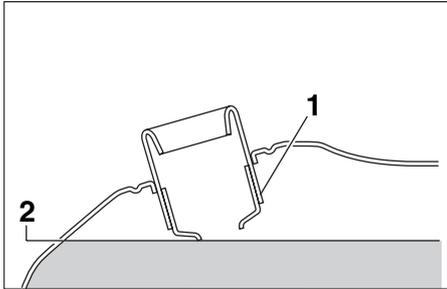
EWA00047

⚠ WARNING

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

INSTRUMENT AND CONTROL FUNCTIONS

3



1. Fuel tank filler tube
2. Fuel level

EAU003753

Fuel

Make sure that there is sufficient fuel in the tank. Fill the fuel tank to the bottom of the filler tube as shown.

EW000130

⚠ WARNING

- Do not overfill the fuel tank, otherwise it may overflow when the fuel warms up and expands.
- Avoid spilling fuel on the hot engine.

EAU00185

CAUTION:

Immediately wipe off spilled fuel with a clean, dry, soft cloth, since fuel may deteriorate painted surfaces or plastic parts.

EAU03626

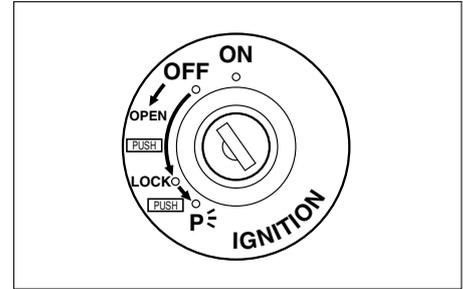
Recommended fuel:

Regular unleaded gasoline with a research octane number of 91 or higher

Fuel tank capacity:
14 L

NOTE:

If knocking (or pinging) occurs, use gasoline of a different brand or with a higher octane grade.



EAU03802

Seat

To open the seat

1. Place the scooter on the center-stand.
2. Insert the key into the main switch, and then turn it counter-clockwise.

NOTE:

Do not push inward when turning the key.

3. Fold the seat up.

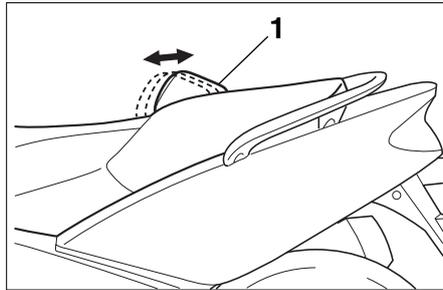
INSTRUMENT AND CONTROL FUNCTIONS

To close the seat

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

NOTE:

Make sure that the seat is properly secured before riding.



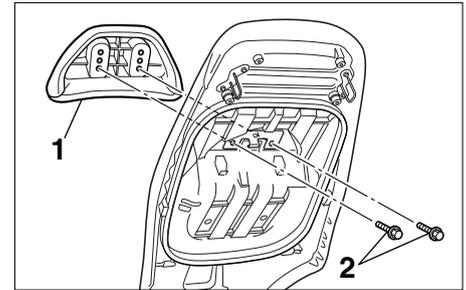
1. Rider backrest

EAU03880

Adjusting the rider backrest

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

Adjust the backrest as follows.



1. Rider backrest
2. Bolt (x2)

1. Open the seat. (See page 3-9 for seat opening and closing procedures.)
2. Remove the backrest bolts.
3. Slide the backrest forward or backward to the desired position.
4. Install and securely tighten the backrest bolts.
5. Close the seat.

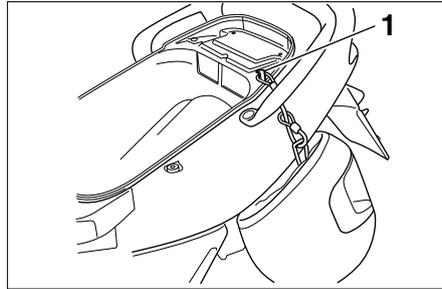
INSTRUMENT AND CONTROL FUNCTIONS

⚠ WARNING

EAU00315

This shock absorber contains highly pressurized nitrogen gas. For proper handling, read and understand the following information before handling the shock absorber. The manufacturer cannot be held responsible for property damage or personal injury that may result from improper handling.

- Do not tamper with or attempt to open the gas cylinder.
- Do not subject the shock absorber to an open flame or other high heat sources, otherwise it may explode due to excessive gas pressure.
- Do not deform or damage the gas cylinder in any way, as this will result in poor damping performance.
- Always have a Yamaha dealer service the shock absorber.



1. Helmet holder

EAU03879

Helmet holder

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

To secure a helmet to the helmet holder

1. Open the seat. (See page 3-9 for opening procedures.)
2. Pass the helmet holding cable through the buckle on the helmet strap as shown, and then hook the cable loop over the helmet holder.

3. Securely close the seat.

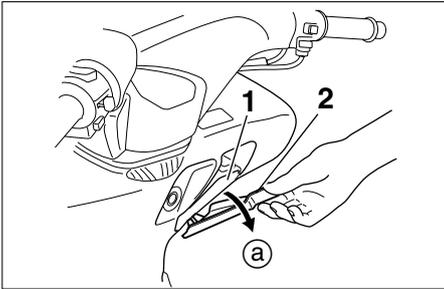
⚠ WARNING

EW000030

Never ride with a helmet attached to the helmet holder, since the helmet may hit objects, causing loss of control and possibly an accident.

To release the helmet from the helmet holder

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



1. Front storage compartment
2. Lid
- a. Open.

EAU003805

Storage compartments

Front storage compartment

To open the front storage compartment, slide the lever up, and then pull on the lever.

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

EWA00034

⚠ WARNING

Do not store heavy items in this compartment.

Rear storage compartment

A helmet can be stored in the compartment under the seat. (See page 3-9 for seat opening and closing procedures.)

ECA00079

CAUTION:

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

EWA00045

⚠ WARNING

- **Do not exceed the load limit of 5 kg for the rear storage compartment.**
- **Do not exceed the maximum load of 183 kg for the vehicle.**

Sidestand

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

NOTE:

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

INSTRUMENT AND CONTROL FUNCTIONS

3

⚠ WARNING

EW000044

The scooter 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 as described below and have a Yamaha dealer repair it if it does not function properly.

EAU00037

Ignition circuit cut-off system

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

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

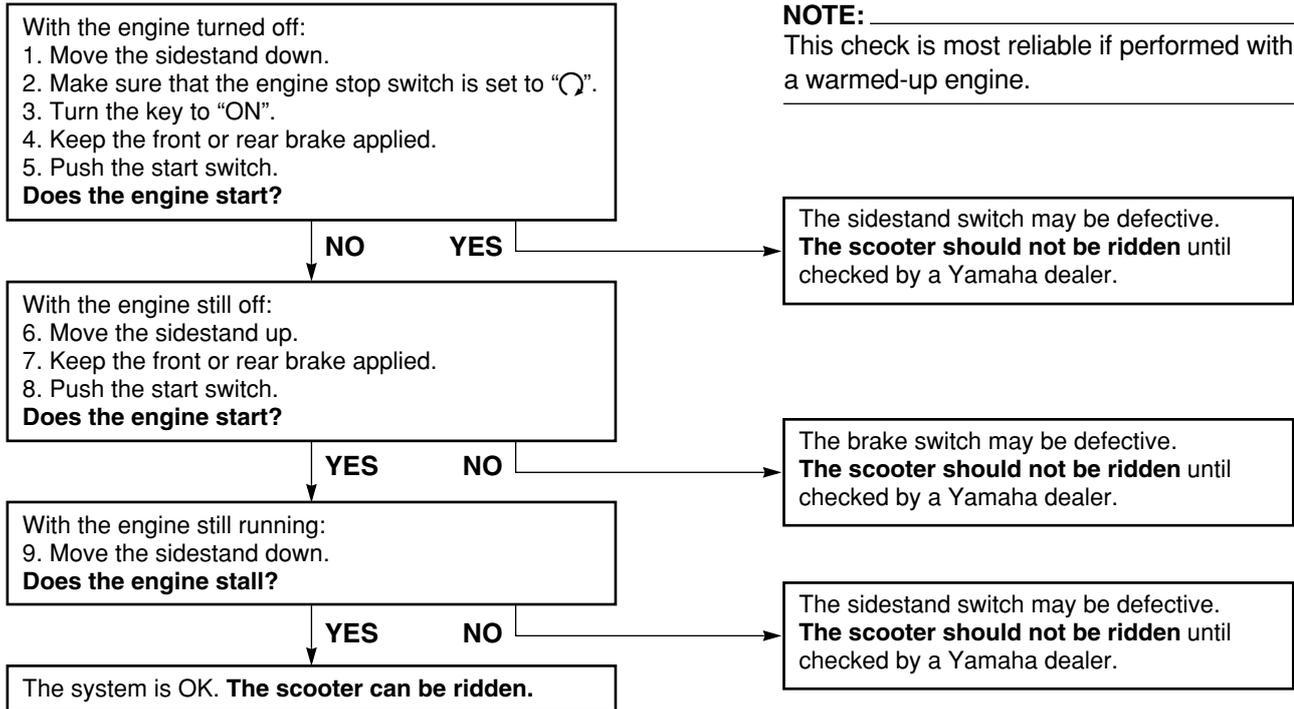
Periodically check the operation of the ignition circuit cut-off system according to the following procedure.

EW000045

⚠ WARNING

If a malfunction is noted, have a Yamaha dealer check the system before riding.

INSTRUMENT AND CONTROL FUNCTIONS



Pre-operation check list4-1

PRE-OPERATION CHECKS

The condition of a vehicle is the owner's responsibility. Vital components can start to deteriorate quickly and unexpectedly, even if the vehicle remains unused (for example, as a result of exposure to the elements). Any damage, fluid leakage or loss of tire air pressure could have serious consequences. Therefore, it is very important, in addition to a thorough visual inspection, to check the following points before each ride.

EAU03439

Pre-operation check list

ITEM	CHECKS	PAGE
Fuel	<ul style="list-style-type: none"> • Check fuel level in fuel tank. • Refuel if necessary. • Check fuel line for leakage. 	3-4, 3-8–3-9
Engine oil	<ul style="list-style-type: none"> • Check oil level in engine. • If necessary, add recommended oil to specified level. • Check vehicle for oil leakage. 	6-12–6-14
Coolant	<ul style="list-style-type: none"> • Check coolant level in reservoir. • If necessary, add recommended coolant to specified level. • Check cooling system for leakage. 	6-17–6-18
Front brake	<ul style="list-style-type: none"> • Check operation. • If soft or spongy, have Yamaha dealer bleed hydraulic system. • Check fluid level in reservoir. • If necessary, add recommended brake fluid to specified level. • Check hydraulic system for leakage. 	3-7, 6-25–6-28
Rear brake	<ul style="list-style-type: none"> • Check operation. • If soft or spongy, have Yamaha dealer bleed hydraulic system. • Check fluid level in reservoir. • If necessary, add recommended brake fluid to specified level. • Check hydraulic system for leakage. 	3-8, 6-25–6-28

PRE-OPERATION CHECKS

ITEM	CHECKS	PAGE
Throttle grip	<ul style="list-style-type: none">• Make sure that operation is smooth.• Lubricate throttle grip, housing and cables if necessary.• Check free play.• If necessary, have Yamaha dealer make adjustment.	6-22, 6-29
Wheels and tires	<ul style="list-style-type: none">• Check for damage.• Check tire condition and tread depth.• Check air pressure.• Correct if necessary.	6-23–6-25
Brake levers	<ul style="list-style-type: none">• Make sure that operation is smooth.• Lubricate lever pivoting points if necessary.	6-29
Centerstand, sidestand	<ul style="list-style-type: none">• Make sure that operation is smooth.• Lubricate pivots if necessary.	6-2930
Chassis fasteners	<ul style="list-style-type: none">• Make sure that all nuts, bolts and screws are properly tightened.• Tighten if necessary.	—
Instruments, lights, signals and switches	<ul style="list-style-type: none">• Check operation.• Correct if necessary.	3-2–3-7, 6-35–6-36
Sidestand switch	<ul style="list-style-type: none">• Check operation of ignition circuit cut-off system.• If system is defective, have Yamaha dealer check vehicle.	3-13–3-14

PRE-OPERATION CHECKS

NOTE:

Pre-operation checks should be made each time the scooter is used. Such an inspection can be accomplished in a very short time; and the added safety it assures is more than worth the time involved.

EWA00033

⚠WARNING

If any item in the Pre-operation check list is not working properly, have it inspected and repaired before operating the scooter.

OPERATION AND IMPORTANT RIDING POINTS

Starting the engine	5-1
Starting off	5-2
Acceleration and deceleration	5-2
Braking	5-3
Tips for reducing fuel consumption.....	5-3
Engine break-in	5-4
Parking	5-4

OPERATION AND IMPORTANT RIDING POINTS

⚠ WARNING

EAU03844

- Become thoroughly familiar with all operating controls and their functions before riding. Consult a Yamaha dealer regarding any control or function that you do not thoroughly understand.
- Never start the engine or operate it in a closed area for any length of time. Exhaust fumes are poisonous, and inhaling them can cause loss of consciousness and death within a short time. Always make sure that there is adequate ventilation.
- For safety, always start the engine with the centerstand down.
- When the centerstand is down and the engine is idling, keep your hands and feet away from the rear wheel.

Starting the engine

EAU03843

EC000046

CAUTION:

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

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

EW000054

⚠ WARNING

- Before starting the engine, check the function of the ignition circuit cut-off system according to the procedure described on page 3-14.
- Never ride with the sidestand down.

1. Turn the key to “ON” and make sure that the engine stop switch is set to “”.
2. Close the throttle completely.
3. Start the engine by pushing the start switch while applying the front or rear brake.

NOTE:

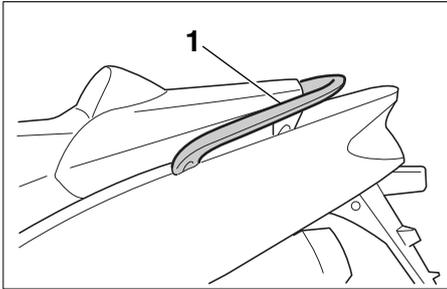
If the engine does not start, release the start switch, wait a few seconds, and then try again. Each starting attempt should be as short as possible to preserve the battery. Do not crank the engine more than 10 seconds on any one attempt. If the engine does not start, try with the throttle open 1/8 turn.

ECA00045

CAUTION:

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

OPERATION AND IMPORTANT RIDING POINTS



1. Grab bar

EAU00433

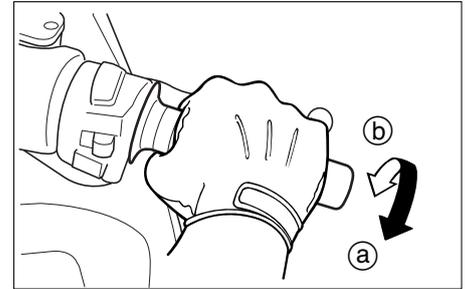
Starting off

NOTE:

Before starting off, allow the engine to warm up.

1. While pulling the rear brake lever with your left hand and holding the grab bar with your right hand, push the scooter off the center-stand.
2. Sit astride the seat, and then adjust the rear view mirrors.
3. Switch the turn signal 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 signal off.

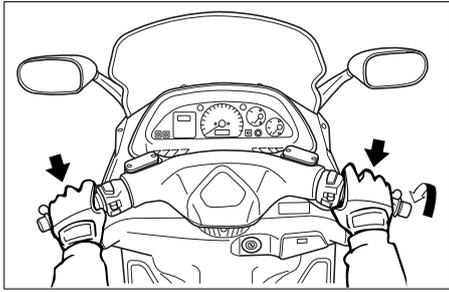


EAU00434

Acceleration and deceleration

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

OPERATION AND IMPORTANT RIDING POINTS



EAU00435

Braking

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

⚠ WARNING

EW000057

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

EAU03093

Tips for reducing fuel consumption

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

- Thoroughly warm up the engine.
- 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).

EAU001128

Engine break-in

There is never a more important period in the life of your engine than the period between 0 and 1,600 km. 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 1,600 km. 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.

EAU003845

0–1,000 km

Avoid prolonged operation above 1/3 throttle.

1,000–1,600 km

Avoid prolonged operation above 1/2 throttle.

ECA00080

CAUTION:

After 1,000 km of operation, the engine oil must be changed, and the oil filter cartridge replaced.

1,600 km and beyond

The vehicle can now be operated normally.

EC000049

CAUTION:

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

EAU00460

Parking

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

EW000058

⚠ 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.**
- **Do not park on a slope or on soft ground, otherwise the scooter may overturn.**

PERIODIC MAINTENANCE AND MINOR REPAIR

Owner's tool kit	6-1	Checking the steering	6-31
Periodic maintenance and lubrication chart	6-3	Checking the wheel bearings	6-32
Removing and installing cowlings and panels	6-6	Battery	6-32
Checking the spark plugs	6-9	Replacing the fuses	6-34
Engine oil and oil filter cartridge	6-12	Replacing a headlight bulb	6-35
Chain drive oil	6-16	Troubleshooting	6-36
Coolant	6-17	Troubleshooting charts	6-37
Cleaning the air filter element	6-19		
Adjusting the carburetors	6-21		
Adjusting the engine idling speed	6-21		
Adjusting the throttle cable free play	6-22		
Adjusting the valve clearance	6-22		
Tires	6-23		
Cast wheels	6-25		
Front and rear brake levers	6-25		
Checking the front and rear brake pads	6-26		
Checking the brake fluid level	6-27		
Changing the brake fluid	6-28		
Checking and lubricating the throttle grip and cable	6-29		
Lubricating the front and rear brake levers	6-29		
Checking and lubricating the centerstand and sidestand	6-30		
Checking the front fork	6-30		

PERIODIC MAINTENANCE AND MINOR REPAIR

EAU00464

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

The intervals given in the periodic maintenance and lubrication chart 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.**

EW000060

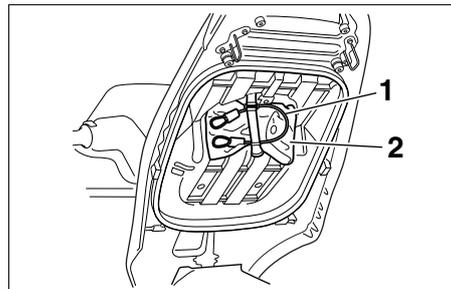
⚠ WARNING

If you are not familiar with scooter maintenance work, have a Yamaha dealer do it for you.

EAU00466

⚠ 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.



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

EAU03846

Owner's tool kit

The owner's tool kit is located under the seat. (See page 3-9 for seat opening and closing procedures.)

The service information included in this manual and the tools provided in the owner's tool kit are intended to assist you in the performance of preventive maintenance and minor repairs. However, additional tools such as a torque wrench may be necessary to perform certain maintenance work correctly.

PERIODIC MAINTENANCE AND MINOR REPAIR

NOTE: _____

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

EW000063

⚠ WARNING _____

Modifications not approved by Yamaha may cause loss of performance and render the vehicle unsafe for use. Consult a Yamaha dealer before attempting any changes.

PERIODIC MAINTENANCE AND MINOR REPAIR

EAU03685

Periodic maintenance and lubrication chart

NOTE:

- The annual checks must be performed every year, except if a kilometer-based maintenance is performed instead.
- From 50,000 km, repeat the maintenance intervals starting from 10,000 km.
- Items marked with an asterisk should be performed by a Yamaha dealer as they require special tools, data and technical skills.

NO.	ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING (×1,000 km)					ANNUAL CHECK
			1	10	20	30	40	
1	* Fuel line	• Check fuel hoses and vacuum hose for cracks or damage.		√	√	√	√	√
2	* Fuel filter	• Check condition.			√		√	
3	Spark plugs	• Check condition. • Clean and regap.		√		√		
		• Replace.			√		√	
4	* Valves	• Check valve clearance. • Adjust.	Every 40,000 km					
5	Air filter element	• Clean.		√		√		
		• Replace.			√		√	
6	* V-belt case air filter elements	• Clean.		√		√		
		• Replace.			√		√	
7	* Front brake	• Check operation, fluid level and vehicle for fluid leakage. (See NOTE on page 6-5.)	√	√	√	√	√	√
		• Replace brake pads.	Whenever worn to the limit					

6

PERIODIC MAINTENANCE AND MINOR REPAIR

NO.	ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING (×1,000 km)					ANNUAL CHECK
			1	10	20	30	40	
8 *	Rear brake	• Check operation, fluid level and vehicle for fluid leakage. (See NOTE on page 6-5.)	√	√	√	√	√	√
		• Replace brake pads.	Whenever worn to the limit					
9 *	Brake hose	• Check for cracks or damage.		√	√	√	√	√
		• Replace. (See NOTE on page 6-5.)	Every 4 years					
10 *	Wheels	• Check runout and for damage.		√	√	√	√	
11 *	Tires	• Check tread depth and for damage.		√	√	√	√	
		• Replace if necessary. • Check air pressure. • Correct if necessary.						
12 *	Wheel bearings	• Check bearing for looseness or damage.		√	√	√	√	
13 *	Steering bearings	• Check bearing play and steering for roughness.	√	√	√	√	√	
		• Lubricate with lithium-soap-based grease	Every 20,000 km					
14 *	Chassis fasteners	• Make sure that all nuts, bolts and screws are properly tightened.		√	√	√	√	√
15	Sidestand/centerstand	• Check operation. • Lubricate.		√	√	√	√	√
16 *	Sidestand switch	• Check operation.	√	√	√	√	√	√
17 *	Front fork	• Check operation and for oil leakage.		√	√	√	√	
18 *	Rear shock absorber assembly	• Check operation and shock absorber for oil leakage.		√	√	√	√	
		• Lubricate the pivoting points with lithium-soap-based grease.			√		√	
19 *	Carburetors	• Adjust engine idling speed and synchronization.	√	√	√	√	√	√

PERIODIC MAINTENANCE AND MINOR REPAIR

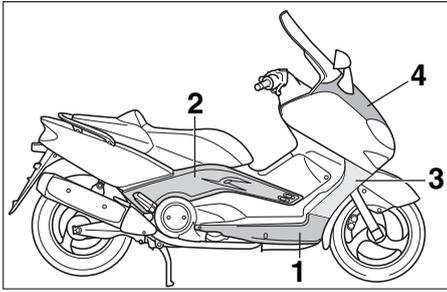
NO.	ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING (×1,000 km)					ANNUAL CHECK
			1	10	20	30	40	
20	Engine oil	• Change. (See page 3-2 for more information about the oil change indicator light.)	√	4,000 km after initial 1,000 km				
			When the oil change indicator light comes on (every 5,000 km)					
21	Engine oil filter cartridge	• Replace.	√		√		√	
22 *	Cooling system	• Check coolant level and vehicle for coolant leakage.		√	√	√	√	√
		• Change.	Every 3 years					
23	Chain drive oil	• Check vehicle for oil leakage. • Change.		√	√	√	√	
24 *	V-belt	• Replace.	When the V-Belt replacement indicator light comes on (every 20,000 km)					
25 *	Front and rear brake switches	• Check operation.	√	√	√	√	√	√
26	Moving parts and cables	• Lubricate.		√	√	√	√	√
27 *	Lights, signals and switches	• Check operation. • Adjust headlight beam.	√	√	√	√	√	√

EAU03884

NOTE:

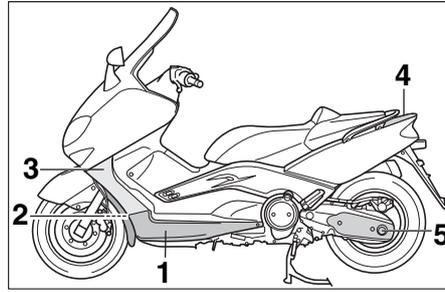
- The air filter needs more frequent service if you are riding in unusually wet or dusty areas.
- Hydraulic brake service
 - Regularly check and, if necessary, correct the brake fluid level.
 - Every two years replace the internal components of the brake master cylinders and calipers, and change the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

PERIODIC MAINTENANCE AND MINOR REPAIR

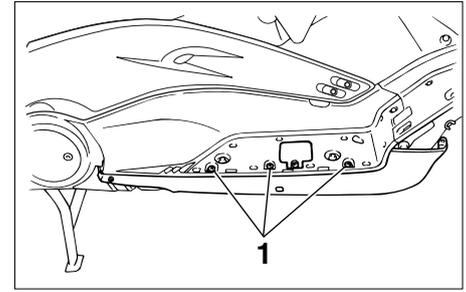


1. Panel A
2. Panel B
3. Panel C
4. Cowling A

EAU01139



1. Panel D
2. Cowling B
3. Panel E
4. Cowling C
5. Panel F



1. Screw (x3)

EAU03878

Removing and installing cowlings and panels

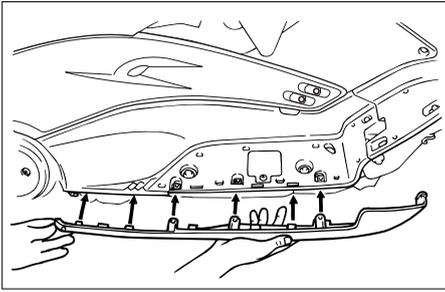
The cowlings and panels shown above need to be removed to perform some of the maintenance jobs described in this chapter. Refer to this section each time a cowling or panel needs to be removed and installed.

Panels A and D

To remove one of the panels

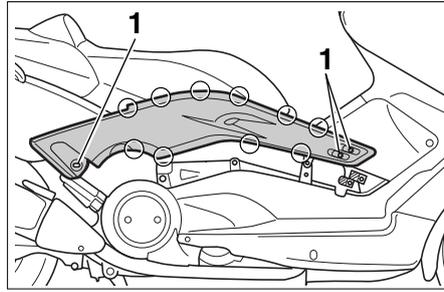
1. Remove panel C (right side) or panel E (left side).
2. Remove the panel screws.
3. Pull outward on the front of the panel.

PERIODIC MAINTENANCE AND MINOR REPAIR



To install the panel

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



1. Screw (×3)

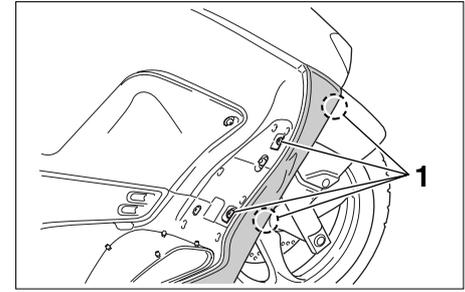
Panel B

To remove the panel

Remove the panel screws, and then pull outward on the areas shown.

To install the panel

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



1. Screw (×4)

Panels C and E

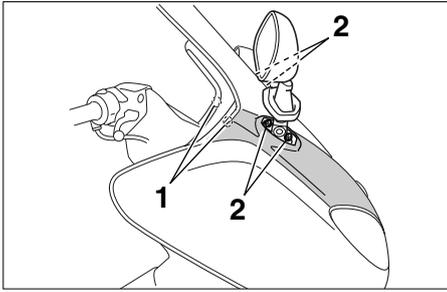
To remove one of the panels

Pull the floorboard mat off, and then remove the panel screws.

To install the panel

Place the panel in the original position, install the screws, and then place the floorboard mat back.

PERIODIC MAINTENANCE AND MINOR REPAIR



1. Screw (×2)
2. Nut (×4)

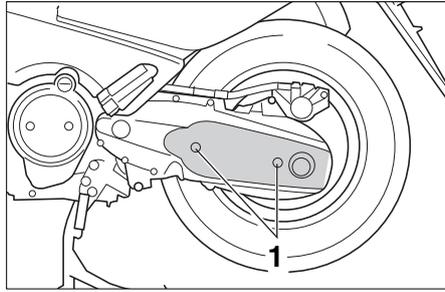
Cowling A

To remove the cowling

1. Remove the rear view mirrors by removing the nuts.
2. Remove the cowling screws.

To install the cowling

1. Place the cowling in the original position, and then install the screws.
2. Install the rear view mirrors by installing the nuts.



1. Screw (×2)

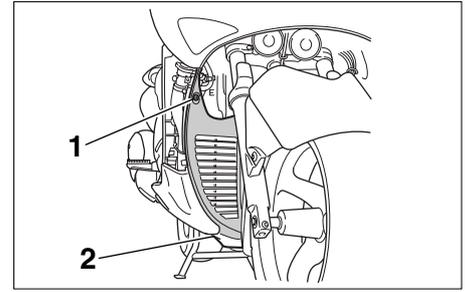
Panel F

To remove the panel

Remove the panel screws.

To install the panel

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



1. Bolt (×2)
2. Screw (×2)

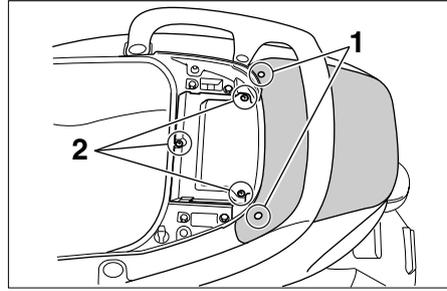
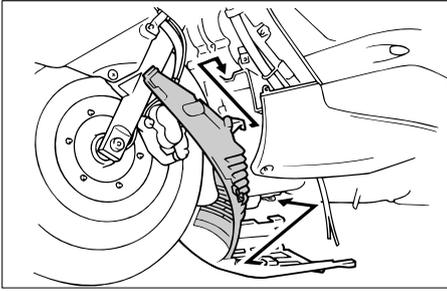
Cowling B

To remove the cowling

1. Remove panels C and E.
2. Remove the cowling screws and bolts.
3. Unhook the cowling from the holder at the bottom.
4. Unhook the front of the cowling by pushing it up, and then pull the cowling out.

PERIODIC MAINTENANCE AND MINOR REPAIR

EAU03816



1. Bolt (x2)
2. Screw (x3)

Cowling C

To remove the cowling

1. Remove the cowling bolts.
2. Remove the battery cover by removing the screws.
3. Pull the cowling off.

To install the cowling

1. Install the battery cover by installing the screws.
2. Place the cowling in the original position, and then install the bolts.

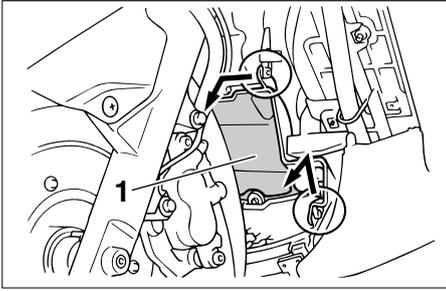
Checking the spark plugs

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

To install the cowling

1. Place the cowling in the original position, and then install the screws and bolts.
2. Install panels C and E.

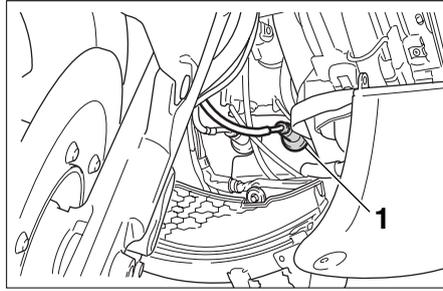
PERIODIC MAINTENANCE AND MINOR REPAIR



1. Spark plug cover

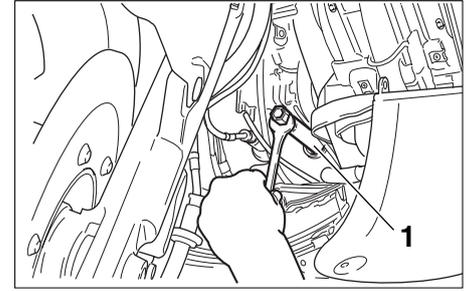
To remove a spark plug

1. Remove cowling B. (See page 6-8 for cowling removal and installation procedures.)
2. Remove the spark plug cover by pulling it out as shown.



1. Spark plug cap

3. Remove the spark plug cap.



1. Spark plug wrench

4. Remove the spark plug as shown with the spark plug wrench included in the owner's tool kit.

PERIODIC MAINTENANCE AND MINOR REPAIR

To check the spark plugs

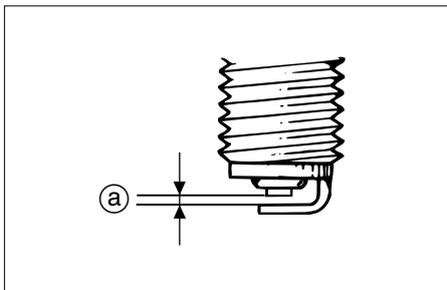
1. Check that the porcelain insulator around the center electrode on each spark plug is a medium-to-light tan (the ideal color when the scooter is ridden normally).
2. Check that all spark plugs installed in the engine have the same color.

NOTE:

If any spark plug shows a distinctly different color, the engine could be defective. Do not attempt to diagnose such problems yourself. Instead, have a Yamaha dealer check the scooter.

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

Specified spark plug:
CR7E (NGK)



a. Spark plug gap

To install a spark plug

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

Spark plug gap:
0.7–0.8 mm

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

Tightening torque:

Spark plug:

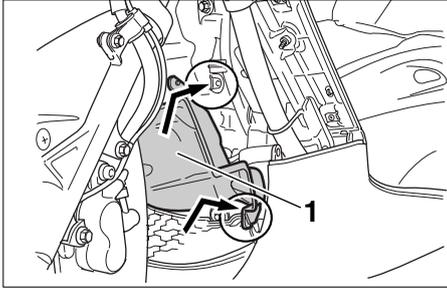
12.5 Nm (1.25 m·kg)

NOTE:

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.

4. Install the spark plug cap.

PERIODIC MAINTENANCE AND MINOR REPAIR



1. Spark plug cover
5. Place the spark plug cover in the original position as shown, and then install the cowling.

EAU03872

Engine oil and oil filter cartridge

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

To check the engine oil level

1. Place the scooter on the center-stand.

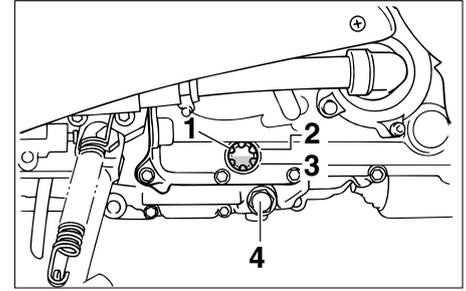
CAUTION:

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

NOTE:

Make sure that the scooter is positioned straight up when checking the oil level. A slight tilt to the side can result in a false reading.

ECA00081



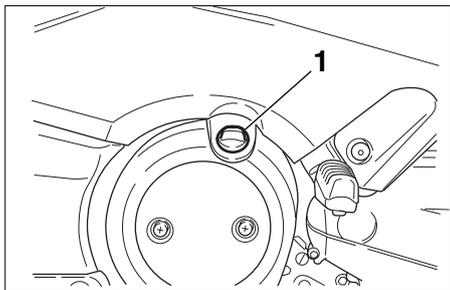
1. Engine oil level check window
 2. Maximum level
 3. Minimum level
 4. Engine oil drain bolt
2. Start the engine, warm it up for two minutes, and then turn it off.
 3. Wait two minutes until the oil settles, and then check the oil level through the check window located at the bottom-left side of the crankcase.

NOTE:

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

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.

PERIODIC MAINTENANCE AND MINOR REPAIR



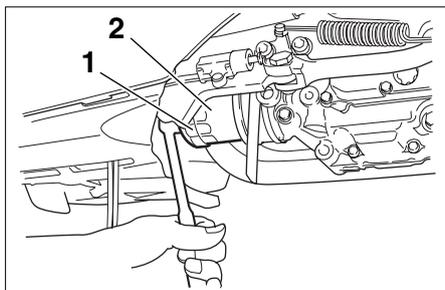
1. Engine oil filler cap

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

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

NOTE: _____

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



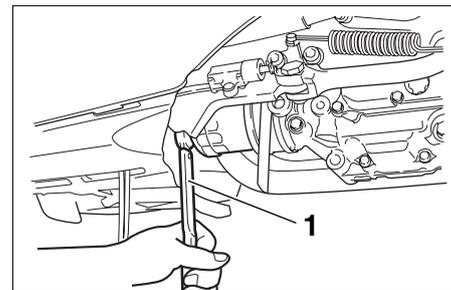
1. Oil filter wrench
2. Oil filter cartridge
4. Remove the oil filter cartridge with an oil filter wrench.

NOTE: _____
An oil filter wrench is available at a Yamaha dealer.

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

NOTE: _____

Make sure that the O-ring is properly seated.



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

Tightening torque:
Oil filter cartridge:
17 Nm (1.7 m·kg)

7. Install the engine oil drain bolt, and then tighten it to the specified torque.

Tightening torque:
Engine oil drain bolt:
43 Nm (4.3 m·kg)

PERIODIC MAINTENANCE AND MINOR REPAIR

8. Add the specified amount of the recommended engine oil, and then install and tighten the oil filler cap.

Recommended oil:

SAE 10W-30 or 10W-40
(API SE, SF, SG or higher)

Oil quantity:

Without oil filter cartridge
replacement:

2.8 L

With oil filter cartridge
replacement:

2.9 L

Total amount (dry engine):

3.6 L

EC000072

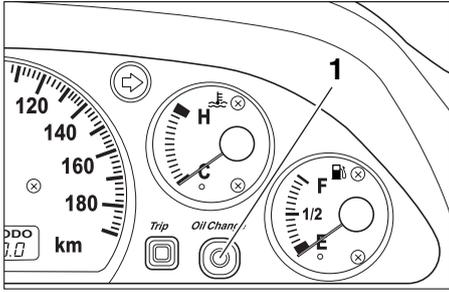
CAUTION:

- **In order to prevent clutch slippage (since the engine oil also lubricates the clutch), do not mix any chemical additives with the oil or use oils of a higher grade than “CD”. In addition, do not use oils labeled “ENERGY CONSERVING II” or higher.**
- **Make sure that no foreign material enters the crankcase.**

9. Start the engine, and then let it idle for several minutes while checking it for oil leakage. If oil is leaking, immediately turn the engine off and check for the cause.

10. Turn the engine off, and then check the oil level and correct it if necessary.

PERIODIC MAINTENANCE AND MINOR REPAIR



1. Reset button "Oil Change"

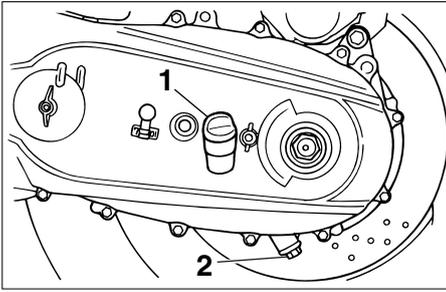
To reset the oil change indicator light

1. Turn the key to "ON".
2. Hold the reset button pushed for two to five seconds.
3. Release the reset button, and the oil change indicator light will go off.

NOTE: _____

If the engine oil is changed before the oil change indicator light comes on (i.e. before the periodic oil change interval has been reached), the indicator light must be reset after the oil change for the next periodic oil change to be indicated at the correct time. To reset the oil change indicator light before the periodic oil change interval has been reached, follow the above procedure, but note that the indicator light will come on for 1.4 seconds after releasing the reset button, otherwise repeat the procedure.

PERIODIC MAINTENANCE AND MINOR REPAIR



1. Chain drive oil filler cap
2. Chain drive oil drain bolt

EAU04253

Chain drive oil

The chain drive oil should be changed as follows at the intervals specified in the periodic maintenance and lubrication chart.

1. Remove panel F. (See page 6-8 for panel removal and installation procedures.)
2. Place an oil pan under the chain drive case to collect the used oil.
3. Remove the oil filler cap and drain bolt to drain the oil from the chain drive case.

4. Install the chain drive oil drain bolt, and then tighten it to the specified torque.

Tightening torque:

Chain drive oil drain bolt:
20 Nm (2.0 m·kg)

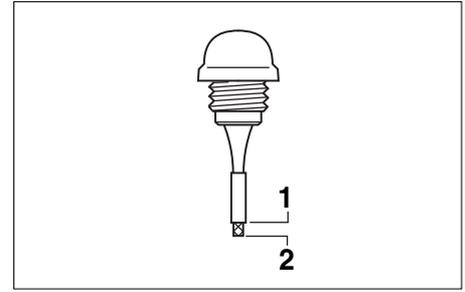
5. Add the specified amount of the recommended oil.

Recommended chain drive oil:

See page 8-1.

Oil quantity:
0.7 L

6. Wipe the dipstick clean, insert it into the oil filler hole (without screwing it in), and then remove it to check the oil level.



1. Maximum level mark
2. Minimum level mark

NOTE:

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

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

CAUTION:

Make sure that no foreign material enters the chain drive case.

PERIODIC MAINTENANCE AND MINOR REPAIR

EAU03850

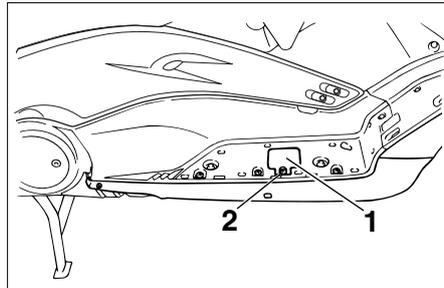
Coolant

To check the coolant level

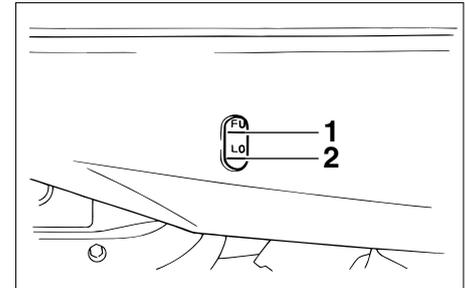
1. Place the scooter on a level surface and hold it in an upright position.

NOTE:

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



1. Coolant reservoir cover
 2. Screw
2. Remove the coolant reservoir cover by removing the screw.



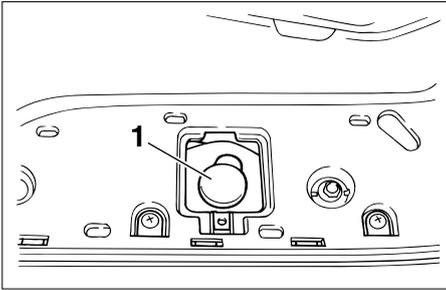
1. Maximum level mark
 2. Minimum level mark
3. Check the coolant level in the coolant reservoir.

NOTE:

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

PERIODIC MAINTENANCE AND MINOR REPAIR

EC000080



1. Coolant reservoir cap

4. If the coolant is at or below the minimum level mark, open the reservoir cap, add coolant to the maximum level mark, and then close the reservoir cap.

Coolant reservoir capacity:
0.6 L

CAUTION:

- If coolant is not available, use distilled water or soft tap water instead. Do not use hard water or salt water since it is harmful to the engine.
- If water has been used instead of coolant, replace it with coolant as soon as possible, otherwise the engine may not be sufficiently cooled and the cooling system will not be protected against frost and corrosion.
- If water has been added to the coolant, have a Yamaha dealer check the antifreeze content of the coolant as soon as possible, otherwise the effectiveness of the coolant will be reduced.

EW000067

WARNING

Never attempt to remove the radiator cap when the engine is hot.

5. Install the coolant reservoir cover by installing the screw.

NOTE:

The radiator fan is automatically switched on or off according to the coolant temperature in the radiator. If the engine overheats, see page 6-38 for further instructions.

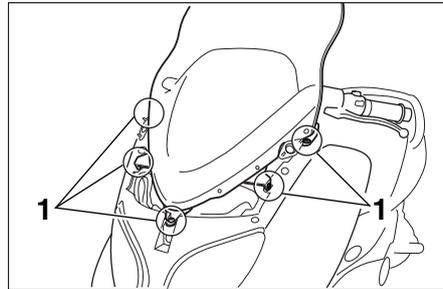
PERIODIC MAINTENANCE AND MINOR REPAIR

EAU03877

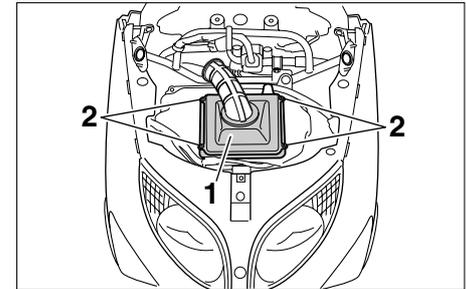
Cleaning the air filter element

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

1. Remove cowling A. (See page 6-8 for cowling removal and installation procedures.)



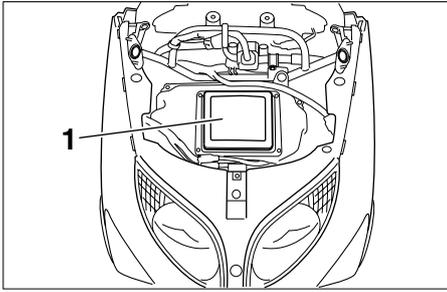
1. Screw (×5)
2. Remove the windshield by removing the screws.



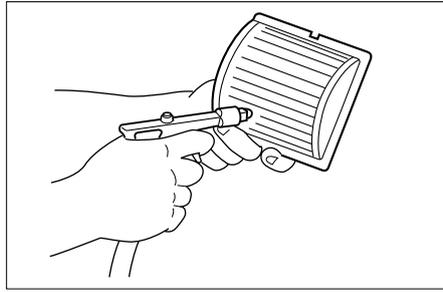
1. Air filter case cover
2. Screw (×4)
3. Remove the air filter case cover by removing the screws, and then pull the air filter element out.

PERIODIC MAINTENANCE AND MINOR REPAIR

EC000082



1. Air filter element



4. Lightly tap the air filter element to remove most of the dust and dirt, and then blow the remaining dirt out with compressed air as shown. If the air filter element is damaged, replace it.
5. Insert the air filter element into the air filter case.

CAUTION:

- 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 pistons and/or cylinders may become excessively worn.

6. Install the air filter case cover by installing the screws.
7. Install the windshield and the cowl.

PERIODIC MAINTENANCE AND MINOR REPAIR

EAU00630

Adjusting the carburetors

The carburetors are important parts of the engine and require very sophisticated adjustment. Therefore, most carburetor adjustments should be left to a Yamaha dealer, who has the necessary professional knowledge and experience. The adjustment described in the following section, however, may be serviced by the owner as part of routine maintenance.

EC000095

CAUTION:

The carburetors have been set and extensively tested at the Yamaha factory. Changing these settings without sufficient technical knowledge may result in poor performance of or damage to the engine.

EAU03821

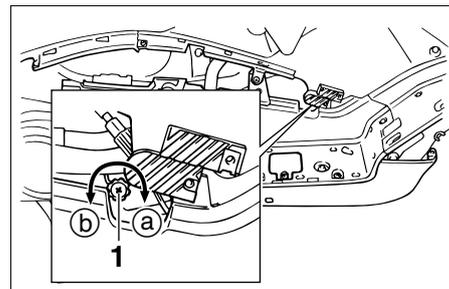
Adjusting the engine idling speed

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

NOTE:

A diagnostic tachometer is needed to make this adjustment.

1. Remove panel B. (See page 6-7 for panel removal and installation procedures.)
2. Attach the tachometer to the spark plug lead.
3. Start the engine and warm it up for several minutes at 1,000–2,000 r/min while occasionally revving it to 4,000–5,000 r/min.



1. Throttle stop screw

NOTE:

The engine is warm when it quickly responds to the throttle.

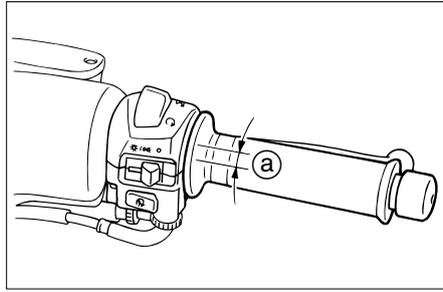
4. Check the engine idling speed and, if necessary, adjust it to specification by turning the throttle stop screw. To increase the engine idling speed, turn the screw in direction **(a)**. To decrease the engine idling speed, turn the screw in direction **(b)**.

Engine idling speed:
1,150–1,200 r/min

NOTE:

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

5. Install the panel.



a. Throttle cable free play

EAU00635

Adjusting the throttle cable free play

The throttle cable free play should measure 3–5 mm at the throttle grip. Periodically check the throttle cable free play and, if necessary, have a Yamaha dealer adjust it.

Adjusting the valve clearance

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

PERIODIC MAINTENANCE AND MINOR REPAIR

EAU03822

Tires

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

Tire air pressure

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

EW000082

⚠ WARNING

- The tire air pressure must be checked and adjusted on cold tires (i.e., when the temperature of the tires equals the ambient temperature).
- The tire air pressure must be adjusted in accordance with the riding speed and with the total weight of rider, passenger, cargo, and accessories approved for this model.

Tire air pressure (measured on cold tires)		
Load*	Front	Rear
Up to 90 kg	200 kPa (2.00 kg/cm ² , 2.00 bar)	225 kPa (2.25 kg/cm ² , 2.25 bar)
90 kg–maximum	225 kPa (2.25 kg/cm ² , 2.25 bar)	250 kPa (2.50 kg/cm ² , 2.50 bar)
High-speed riding	225 kPa (2.25 kg/cm ² , 2.25 bar)	250 kPa (2.50 kg/cm ² , 2.50 bar)

Maximum load*	183 kg
---------------	--------

* Total weight of rider, passenger, cargo and accessories

EWA00040

⚠ WARNING

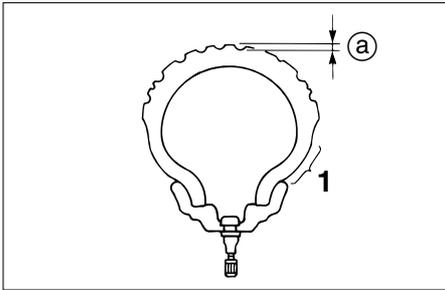
Because loading has an enormous impact on the handling, braking, performance and safety characteristics of your scooter, you should keep the following precautions in mind.

- **NEVER OVERLOAD THE SCOOTER!** Operation of an overloaded scooter may result in tire damage, loss of control, or severe injury. Make sure

that the total weight of rider, passenger, cargo, and accessories does not exceed the specified maximum load for the vehicle.

- Do not carry along loosely packed items, which can shift during a ride.
- Securely pack the heaviest items close to the center of the scooter and distribute the weight evenly on both sides.
- Adjust the tire air pressure with regard to the load.
- Check the tire condition and air pressure before each ride.

PERIODIC MAINTENANCE AND MINOR REPAIR



- 1. Tire sidewall
- a. Tire tread depth

Tire inspection

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 side wall is cracked, have a Yamaha dealer replace the tire immediately.

Minimum tire tread depth (front and rear)	1.6 mm
--	--------

NOTE:

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

EW000079

⚠ WARNING

- Have a Yamaha dealer replace excessively worn tires. Besides being illegal, operating the scooter 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.

Tire information

This scooter is equipped with cast wheel and tubeless tires.

EW000078

⚠ WARNING

- The front and rear tires should be of the same make and design, otherwise the handling characteristics of the scooter cannot be guaranteed.
- After extensive tests, only the tires listed below have been approved for this model by Yamaha Motor Co., Ltd.

FRONT

Manufacturer	Size	Model
DUNLOP	120/70-14M/C 55S	D305FA
BRIDGESTONE	120/70-14M/C 55S	HOOP B03

REAR

Manufacturer	Size	Model
DUNLOP	150/70-14M/C 66S	D305
BRIDGESTONE	150/70-14M/C 66S	HOOP B02

PERIODIC MAINTENANCE AND MINOR REPAIR

⚠ WARNING

EAU00683

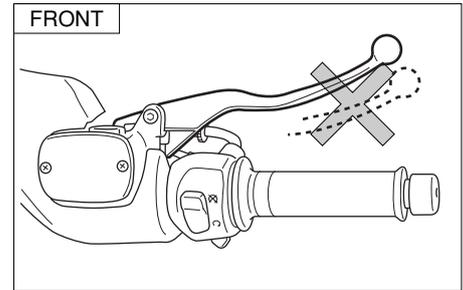
EAU03773

- Have a Yamaha dealer replace excessively worn tires. Besides being illegal, operating the scooter 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.

Cast wheels

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

- The wheel rims should be checked for cracks, bends or warpage before each ride. If any damage is found, have a Yamaha dealer replace the wheel. Do not attempt even the smallest repair to the wheel. A deformed or cracked wheel must be replaced.
- The wheel should be balanced whenever either the tire or wheel has been changed or replaced. An unbalanced wheel can result in poor performance, adverse handling characteristics, and a shortened tire life.
- Ride at moderate speeds after changing a tire since the tire surface must first be “broken in” for it to develop its optimal characteristics.

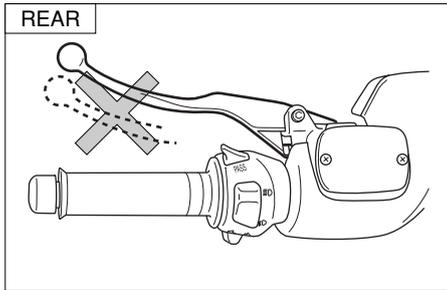


EAU03851

Front and rear brake levers

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

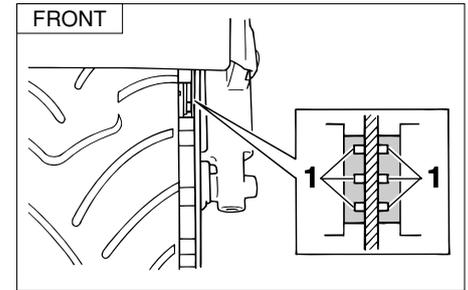
PERIODIC MAINTENANCE AND MINOR REPAIR



EAU00721

Checking the front and rear brake pads

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



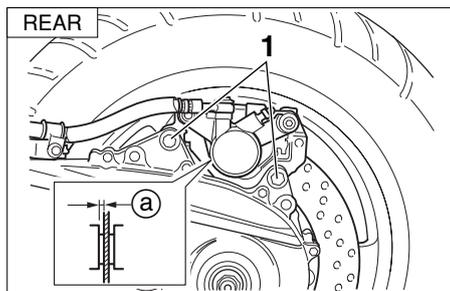
1. Brake pad wear indicator groove (×3)

EAU01119

Front brake pads

Each front brake pad is provided with wear indicator grooves, which allow you to check the brake pad wear without having to disassemble the brake. To check the brake pad wear, check the wear indicator grooves. If a brake pad has worn to the point that the wear indicators have almost disappeared, have a Yamaha dealer replace the brake pads as a set.

PERIODIC MAINTENANCE AND MINOR REPAIR



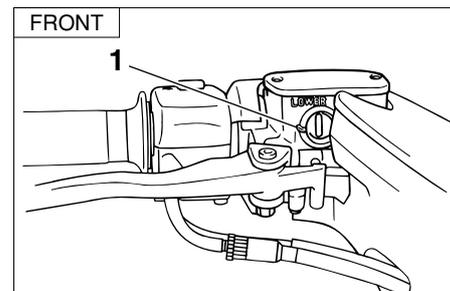
1. Bolt (×2)
- a. Brake pad wear limit

EAU01248

Rear brake pads

1. Remove the rear brake caliper by removing the bolts.
2. Check each rear brake pad for damage and measure the lining thickness. If a brake pad is damaged or if the lining thickness is less than 0.8 mm, have a Yamaha dealer replace the brake pads as a set.
3. Install the rear brake caliper by installing the bolts, then tightening them to the specified torque.

Tightening torque:
Brake caliper bolt:
40 Nm (4.0 m·kg)



1. Minimum level mark

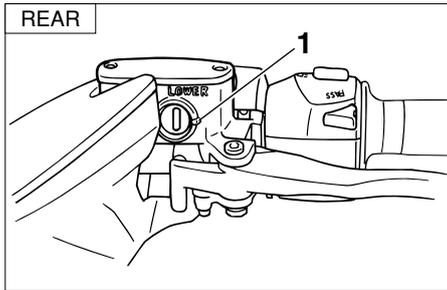
EAU03776

Checking the brake fluid level

Insufficient brake fluid may allow air to enter the brake system, possibly causing it to become ineffective. Before riding, check that the brake fluid is above the minimum level mark and replenish if necessary. A low brake fluid level may indicate worn brake pads and/or brake system leakage. If the brake level is low, be sure to check the brake pads for wear and the brake system for leakage.

PERIODIC MAINTENANCE AND MINOR REPAIR

EAU03073



1. Minimum level mark

Observe these precautions:

- When checking the fluid level, make sure that the top of the brake fluid reservoir is level.
- Use only the recommended quality brake fluid, otherwise the rubber seals may deteriorate, causing leakage and poor braking performance.

Recommended brake fluid:
DOT 4

- Refill with the same type of brake fluid. Mixing fluids may result in a harmful chemical reaction and lead to poor braking performance.
- Be careful that water does not enter the brake fluid reservoir when refilling. Water will significantly lower the boiling point of the fluid and may result in vapor lock.
- Brake fluid may deteriorate painted surfaces or plastic parts. Always clean up spilled fluid immediately.
- As the brake pads wear, it is normal for the brake fluid level to gradually go down. However, if the brake fluid level goes down suddenly, have a Yamaha dealer check the cause.

Changing the brake fluid

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

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

PERIODIC MAINTENANCE AND MINOR REPAIR

EAU03764

Checking and lubricating the throttle grip and cable

The operation of the throttle grip and the condition of the throttle cable should be checked before each ride, and the cable should be lubricated or replaced if necessary.

NOTE:

Since the throttle grip must be removed to access the throttle cable end, the throttle grip and the cable should always be lubricated at the same time.

1. Remove the throttle grip by removing the screws.
2. Hold up the throttle cable, and then apply several drops of oil to the cable, allowing it to trickle into the sheaths.
3. Grease the inside of the throttle grip housing.

4. Grease the metal-to-metal contact surface of the throttle grip, and then install the grip by installing the screws.

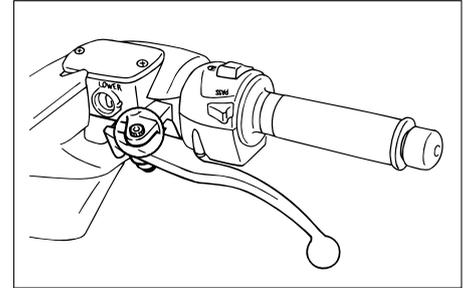
Recommended lubricant:

Throttle cable:

Engine oil

Throttle grip housing and grip:

Lithium-soap-based grease
(all-purpose grease)



EAU03118

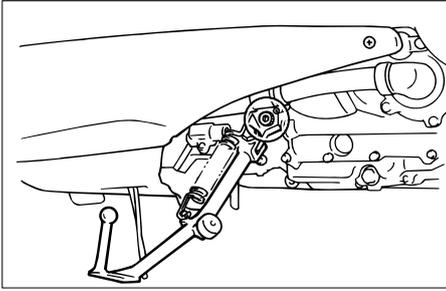
Lubricating the front and rear brake levers

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

Recommended lubricant:

Lithium-soap-based grease
(all-purpose grease)

PERIODIC MAINTENANCE AND MINOR REPAIR



EAU03371

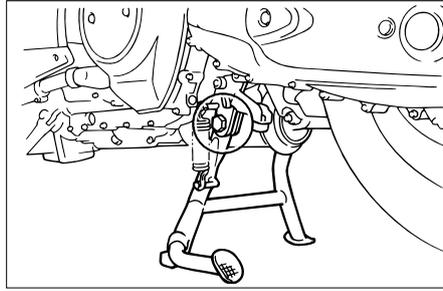
Checking and lubricating the centerstand and sidestand

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

EW000114

⚠ WARNING

If the centerstand or sidestand does not move up and down smoothly, have a Yamaha dealer check or repair it.



EAU02939

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

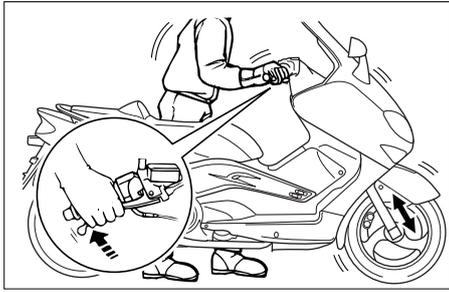
EW000115

⚠ WARNING

Securely support the scooter so that there is no danger of it falling over.

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

PERIODIC MAINTENANCE AND MINOR REPAIR



To check the operation

1. Place the scooter on a level surface and hold it in an upright position.
2. While applying the front brake, push down hard on the handlebars several times to check if the front fork compresses and rebounds smoothly.

EC000098

CAUTION:

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

EAU00794

Checking the steering

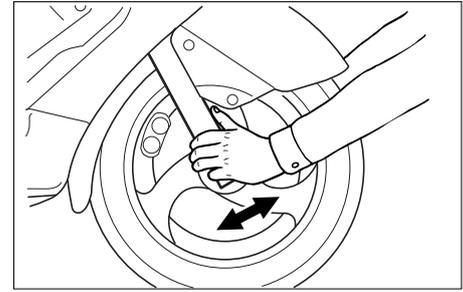
Worn or loose steering bearings may cause danger. Therefore, the operation of the steering must be checked as follows at the intervals specified in the periodic maintenance and lubrication chart.

1. Place a stand under the engine to raise the front wheel off the ground.

EW000115

WARNING

Securely support the scooter so that there is no danger of it falling over.

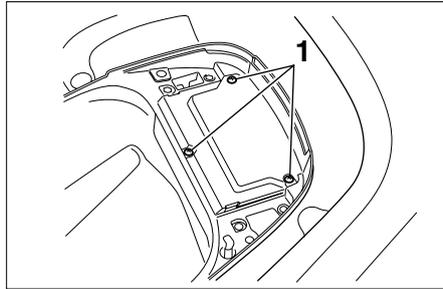


2. Hold the lower ends of the front fork legs and try to move them forward and backward. If any free play can be felt, have a Yamaha dealer check or repair the steering.

EAU01144

Checking the wheel bearings

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



1. Screw (×3)

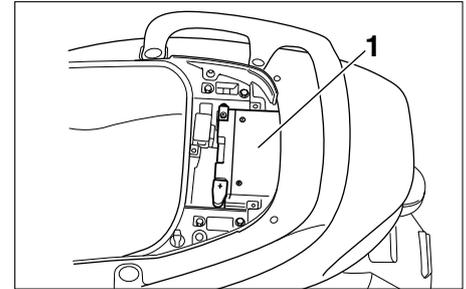
EAU03876

Battery

This scooter is equipped with a sealed-type (MF) battery, which does not require any maintenance. There is no need to check the electrolyte or to add distilled water.

To access the battery

1. Open the seat. (See page 3-9 for seat opening and closing procedures.)
2. Remove the battery cover by removing the screws.



1. Battery

To charge the battery

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

PERIODIC MAINTENANCE AND MINOR REPAIR

⚠️ WARNING

EW000116

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

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

To store the battery

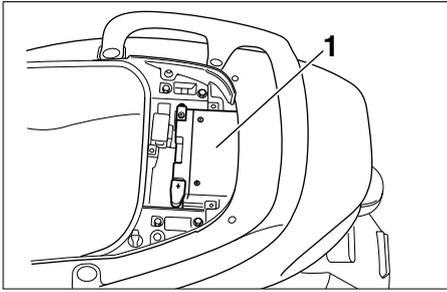
1. If the scooter will not be used for more than one month, remove the battery, fully charge it, and then place it in a cool, dry place.
2. If the battery will be stored for more than two months, check it at least once a month and fully charge it if necessary.
3. Fully charge the battery before installation.

EC000102

CAUTION:

- **Always keep the battery charged. Storing a discharged battery can cause permanent battery damage.**
 - **To charge a sealed-type (MF) battery, a special (constant-voltage) battery charger is required. Using a conventional battery charger will damage the battery. If you do not have access to a sealed-type (MF) battery charger, have a Yamaha dealer charge your battery.**
-

PERIODIC MAINTENANCE AND MINOR REPAIR



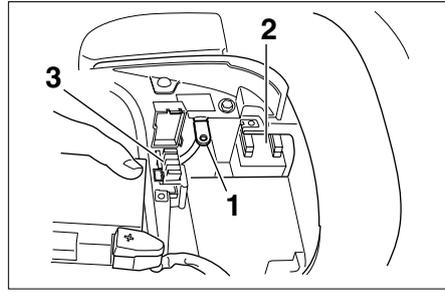
1. Battery

EAU03875

Replacing the fuses

The main fuse box is located beside the battery and can be accessed as follows:

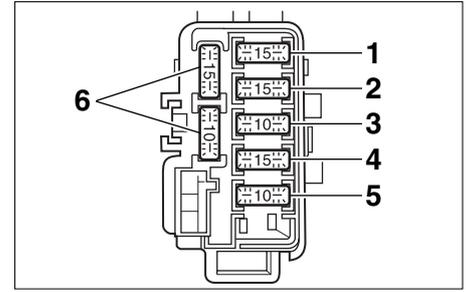
1. Open the seat. (See page 3-9 for seat opening and closing procedures.)
2. Remove the battery cover. (See page 6-32 for battery cover removal procedures.)



1. Negative battery lead
 2. Main fuse box
 3. Fuse box
3. Disconnect the negative battery lead, and then lift the battery as shown.

The fuse box, which contains the fuses for the individual circuits, is located under the battery cover and can be accessed as follows:

1. Open the seat. (See page 3-9 for seat opening and closing procedures.)
2. Remove the battery cover by removing the screws.



1. Signaling system fuse
2. Headlight fuse
3. Ignition fuse
4. Radiator fan fuse
5. Clock fuse
6. Spare fuse (x2)

If a fuse is blown, replace it as follows.

1. Turn the key to "OFF" and turn off the electrical circuit in question.
2. Remove the blown fuse, and then install a new fuse of the specified amperage.

PERIODIC MAINTENANCE AND MINOR REPAIR

Specified fuses:

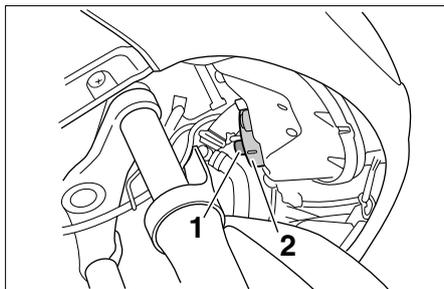
Main fuse:	30 A
Signaling system fuse:	15 A
Headlight fuse:	15 A
Ignition fuse:	10 A
Radiator fan fuse:	15 A
Clock fuse:	10 A

EC000103

CAUTION:

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.

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



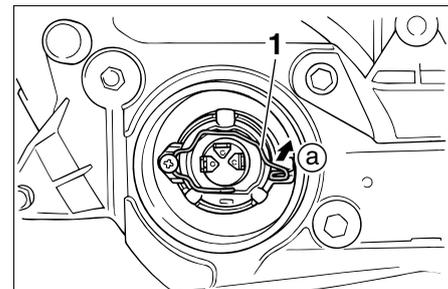
1. Headlight coupler
2. Headlight bulb cover

EAU03874

Replacing a headlight bulb

This scooter is equipped with quartz bulb headlights. If a headlight bulb burns out, replace it as follows.

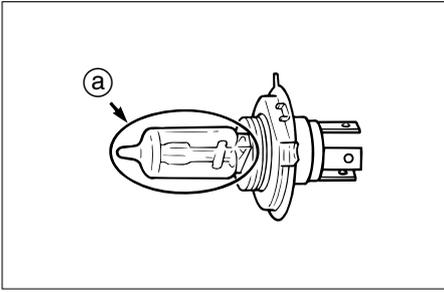
1. Disconnect the headlight coupler, and then remove the headlight bulb cover.



1. Headlight bulb holder
a. Unhook.
2. Unhook the headlight bulb holder as shown, and then remove the defective bulb.

ECU000105

EAU03087



a. Do not touch this area.

EW000119

⚠ WARNING

Headlight bulbs get very hot. Therefore, keep flammable products away from a lit headlight bulb, and do not touch the bulb until it has cooled down.

3. Place a new bulb into position, and then secure it with the bulb holder.

CAUTION:

Do not touch the glass part of the headlight bulb to keep it free from oil, otherwise the transparency of the glass, the luminosity of the bulb, and the bulb life will be adversely affected. Thoroughly clean off any dirt and fingerprints on the headlight bulb using a cloth moistened with alcohol or thinner.

4. Install the bulb cover, and then connect the coupler.
5. Have a Yamaha dealer adjust the headlight beam if necessary.

Troubleshooting

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

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

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

PERIODIC MAINTENANCE AND MINOR REPAIR

EAU02990

Troubleshooting charts

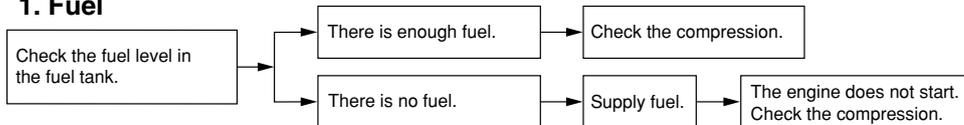
Starting problems or poor engine performance

EW000125

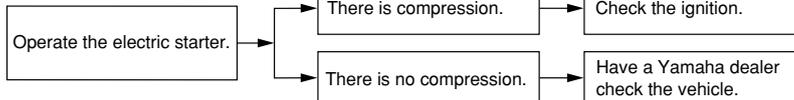


Keep away open flames and do not smoke while checking or working on the fuel system.

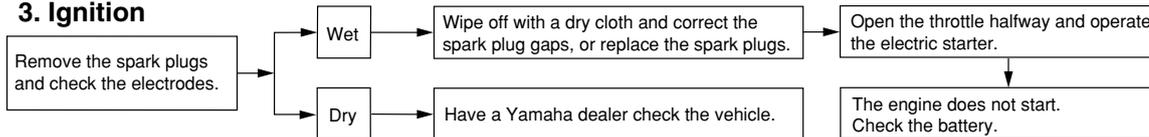
1. Fuel



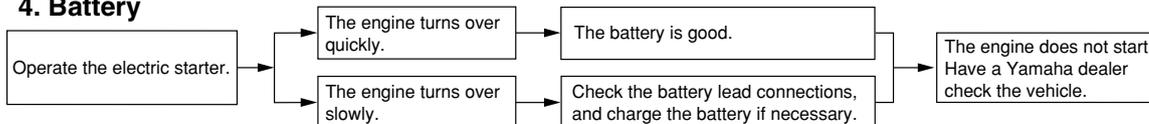
2. Compression



3. Ignition



4. Battery



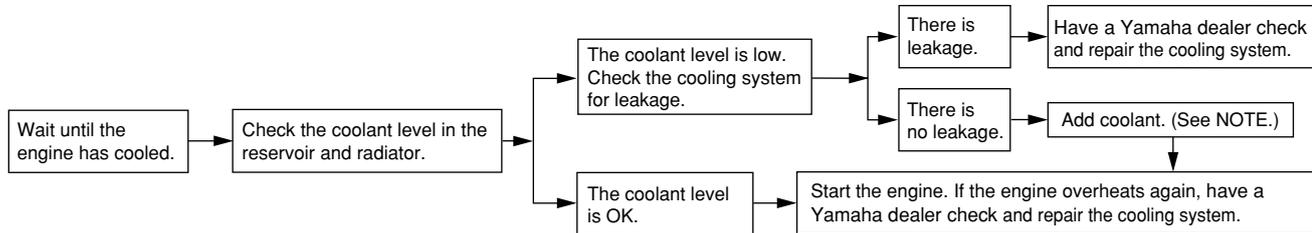
PERIODIC MAINTENANCE AND MINOR REPAIR

Engine overheating

EW000070

⚠ 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.
- After removing the radiator cap retaining bolt, 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.



NOTE:

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.

SCOOTER CARE AND STORAGE

Care.....	7-1
Storage.....	7-4

SCOOTER CARE AND STORAGE

Care

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

Before cleaning

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

Cleaning

ECA00011

CAUTION: _____

- **Avoid using strong acidic wheel cleaners, especially on spoked wheels. If such products are used on hard-to-remove dirt, do not leave the cleaner on the affected area any longer than instructed. Also, thoroughly rinse the area off with water, immediately dry it, and then apply a corrosion protection spray.**
- **Improper cleaning can damage windshields, cowlings, panels and other plastic parts. Use only a soft, clean cloth or sponge with mild detergent and water to clean plastic.**

SCOOTER CARE AND STORAGE

- Do not use any harsh chemical products on plastic parts. Be sure to avoid using cloths or sponges which have been in contact with strong or abrasive cleaning products, solvent or thinner, fuel (gasoline), rust removers or inhibitors, brake fluid, antifreeze or electrolyte.
- Do not use high-pressure washers or steam-jet cleaners since they cause water seepage and deterioration in the following areas: seals (of wheel and swingarm bearings, fork and brakes), electric components (couplers, connectors, instruments, switches and lights), breather hoses and vents.

- For scooters equipped with a windshield: Do not use strong cleaners or hard sponges as they will cause dulling or scratching. Some cleaning compounds for plastic may leave scratches on the windshield. Test the product on a small hidden part of the windshield to make sure that it does not leave any marks. If the windshield is scratched, use a quality plastic polishing compound after washing.

After normal use

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

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

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

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

1. Clean the scooter with cold water and a mild detergent after the engine has cooled down.

ECA00012

CAUTION: _____

Do not use warm water since it increases the corrosive action of the salt.

2. Apply a corrosion protection spray on all metal, including chrome- and nickel-plated, surfaces to prevent corrosion.

SCOOTER CARE AND STORAGE

After cleaning

1. Dry the scooter with a chamois or an absorbing cloth.
2. Use a chrome polish to shine chrome, aluminum and stainless-steel parts, including the exhaust system. (Even the thermally induced discoloring of stainless-steel exhaust systems can be removed through polishing.)
3. To prevent corrosion, it is recommended to apply a corrosion protection spray on all metal, including chrome- and nickel-plated, surfaces.
4. Use spray oil as a universal cleaner to remove any remaining dirt.
5. Touch up minor paint damage caused by stones, etc.

6. Wax all painted surfaces.
7. Let the scooter dry completely before storing or covering it.

⚠ WARNING

EWA00002

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

ECA00013

CAUTION:

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

NOTE:

Consult a Yamaha dealer for advice on what products to use.

SCOOTER CARE AND STORAGE

Storage

Short-term

Always store your scooter in a cool, dry place and, if necessary, protect it against dust with a porous cover.

ECA00015

CAUTION:

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

Long-term

Before storing your scooter for several months:

1. Follow all the instructions in the “Care” section of this chapter.
2. Drain the carburetor float chambers by loosening the drain bolts; this will prevent fuel deposits from building up. Pour the drained fuel into the fuel tank.
3. Fill up the fuel tank and add fuel stabilizer (if available) to prevent the fuel tank from rusting and the fuel from deteriorating.
4. Perform the following steps to protect the cylinders, piston rings, etc. from corrosion.

- a. Remove the spark plug caps and the spark plugs.
- b. Pour a teaspoonful of engine oil into the spark plug bores.
- c. Install the spark plug caps onto the spark plugs, and then place the spark plugs on the cylinder head so that the electrodes are grounded. (This will limit sparking during the next step.)
- d. Turn the engine over several times with the starter. (This will coat the cylinder walls with oil.)
- e. Remove the spark plug caps from the spark plugs, and then install the spark plugs and the spark plug caps.

EWA00003

⚠ WARNING

To prevent damage or injury from sparking, make sure to ground the spark plug electrodes while turning the engine over.

SCOOTER CARE AND STORAGE

5. Lubricate all control cables and the pivoting points of all levers and pedals as well as of the sidestand/centerstand.
6. Check and, if necessary, correct the tire air pressure, and then lift the scooter so that both of its wheels are off the ground. Alternatively, turn the wheels a little every month in order to prevent the tires from becoming degraded in one spot.
7. Cover the muffler outlet with a plastic bag to prevent moisture from entering it.
8. Remove the battery and fully charge it. Store it in a cool, dry place and charge it once a month. Do not store the battery in an excessively cold or warm place (less than 0 °C or more than 30 °C). For more information on storing the battery, see page 6-33.

NOTE: _____
Make any necessary repairs before storing the scooter.

Specifications	8-1
Conversion table.....	8-5

SPECIFICATIONS

Specifications

Model	XP500
Dimensions	
Overall length	2,235 mm
Overall width	775 mm
Overall height	1,410 mm
Seat height	795 mm
Wheelbase	1,575 mm
Ground clearance	130 mm
Minimum turning radius	2,800 mm
Basic weight (with oil and full fuel tank)	217 kg
Engine	
Engine type	Liquid-cooled 4-stroke, DOHC
Cylinder arrangement	Forward inclined 2-cylinder
Displacement	499 cm ³
Bore × Stroke	66.0 × 73.0 mm
Compression ratio	10:1
Starting system	Electric starter
Lubrication system	Dry sump

Engine oil

Type	SAE 10W-30 or 10W-40
Recommended engine oil classification	API Service SE, SF, SG type or higher

CAUTION:

Be sure to use motor oils that do not contain anti-friction modifiers. Passenger car motor oils (often labeled “ENERGY CONSERVING”) contain anti-friction additives which will cause clutch and/or starter clutch slippage, resulting in reduced component life and poor engine performance.

Quantity

Without oil filter cartridge replacement	2.8 L
With oil filter cartridge replacement	2.9 L
Total amount (dry engine)	3.6 L

Chain drive oil

Type	SAE 80API “GL-4” hypoid gear oil
Total amount	0.7 L

Radiator capacity (including all routes)	1.5 L
Air filter	Dry element
Fuel	
Type	Regular unleaded gasoline
Fuel tank capacity	14 L
Carburetor	
Manufacturer	MIKUNI
Model × quantity	BS30 × 2
Spark plug	
Manufacturer/model × quantity	NGK / CR7E × 2
Spark plug gap	0.7–0.8 mm
Clutch type	Wet, multiple-disc automatic
Transmission	
Primary reduction system	Helical gear/spur gear
Primary reduction ratio	52/32 × 36/22 (2.659)
Secondary reduction system	Chain drive
Secondary reduction ratio	41/25 × 40/29 (2.262)
Transmission type	V-belt automatic
Operation	Centrifugal automatic clutch

Chassis		
Frame type		Diamond
Caster angle		28°
Trail		95 mm
Tires		
Front		
Type		Tubeless
Size		120/70-14M/C 55S
Manufacturer/ model		DUNLOP / D305FA BRIDGESTONE / HOOP B03
Rear		
Type		Tubeless
Size		150/70-14M/C 66S
Manufacturer/ model		DUNLOP / D305 BRIDGESTONE / HOOP B02
Maximum load*		183 kg
Air pressure (cold tire) up to 90 kg load*		
Front		200 kPa (2.00 kg/cm ² , 2.00 bar)
Rear		225 kPa (2.25 kg/cm ² , 2.25 bar)
90 kg load–maximum load*		
Front		225 kPa (2.25 kg/cm ² , 2.25 bar)
Rear		250 kPa (2.50 kg/cm ² , 2.50 bar)

SPECIFICATIONS

High-speed riding

Front	225 kPa (2.25 kg/cm ² , 2.25 bar)
Rear	250 kPa (2.50 kg/cm ² , 2.50 bar)

* Total weight of rider, passenger, cargo and accessories

Wheels

Front

Type	Cast wheel
Size	14 M/C × MT3.50

Rear

Type	Cast wheel
Size	14 M/C × MT4.50

Brakes

Front

Type	Single disc brake
Operation	Right hand
Fluid	DOT 4

Rear

Type	Single disc brake
Operation	Left hand
Fluid	DOT 4

Suspension

Front	Telescopic fork
Rear	Swingarm

Spring/shock absorbers

Front	Coil spring/oil damper
Rear	Coil-gas spring/oil damper

Wheel travel

Front	120 mm
Rear	120 mm

Electrical

Ignition system	Transistorized coil ignition (digital)
Charging system	
Type	A.C. magneto
Standard output	14 V, 310W @ 5,000 r/min
Battery	
Type	GT9B-4
Voltage, capacity	12 V, 8 Ah
Headlight bulb type	Halogen bulb
Bulb voltage, wattage × quantity	
Headlight	12 V, 60/55 W × 1 12 V, 55 W × 1

Tail/brake light	12 V, 5/21 W × 2
Front turn signal light	12 V, 5/21 W × 2
Rear turn signal light	12 V, 21 W × 2
Auxiliary light	12 V, 5 W × 2
License plate light	12 V, 5 W × 1
Meter lighting	12 V, 1.7 W × 3
High beam indicator light	12 V, 1.7 W × 1
Oil change indicator light	12 V, 1.7 W × 1
Turn indicator light	12 V, 3.4 W × 2

Fuses

Main fuse	30 A
Signaling system fuse	15 A
Headlight fuse	15 A
Ignition fuse	10 A
Radiator fan fuse	15 A
Clock fuse	10 A

SPECIFICATIONS

EAU01064

Conversion table

All specification data in this manual are listed in SI and METRIC UNITS.

Use this table to convert METRIC unit data to IMPERIAL unit data.

Ex.

METRIC		MULTIPLIER	=	IMPERIAL
** mm	×	0.03937	=	** in
2 mm	×	0.03937	=	0.08 in

CONVERSION TABLE

METRIC TO IMPERIAL			
	Metric unit	Multiplier	Imperial unit
Torque	m • kg	7.233	ft • lb
	m • kg	86.794	in • lb
	cm • kg	0.0723	ft • lb
	cm • kg	0.8679	in • lb
Weight	kg	2.205	lb
	g	0.03527	oz
Speed	km/hr	0.6214	mph
Distance	km	0.6214	mi
	m	3.281	ft
	m	1.094	yd
	cm	0.3937	in
	mm	0.03937	in
Volume/ Capacity	cc (cm3)	0.03527	oz (IMP liq.)
	cc (cm3)	0.06102	cu • in
	L (liter)	0.8799	qt (IMP liq.)
	L (liter)	0.2199	gal (IMP liq.)
Misc.	kg/mm	55.997	lb/in
	kg/cm2	14.2234	psi (lb/in2)
	Centigrade (°C)	9/5 + 32	Fahrenheit (°F)

Identification numbers	9-1
Key identification number	9-1
Vehicle identification number.....	9-1
Model label	9-2

CONSUMER INFORMATION

EAU02944

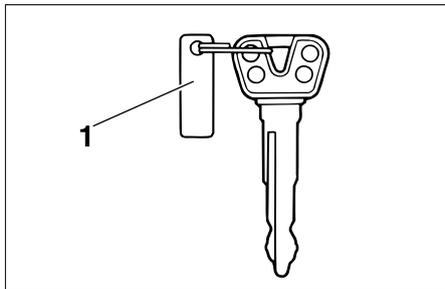
Identification numbers

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

1. KEY IDENTIFICATION NUMBER:

2. VEHICLE IDENTIFICATION NUMBER:

3. MODEL LABEL INFORMATION:



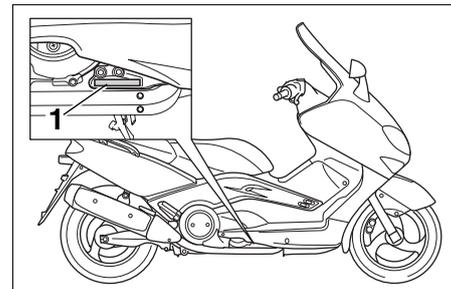
1. Key identification number

EAU01041

Key identification number

The key identification number is stamped into the key tag.

Record this number in the space provided and use it for reference when ordering a new key.



1. Vehicle identification number

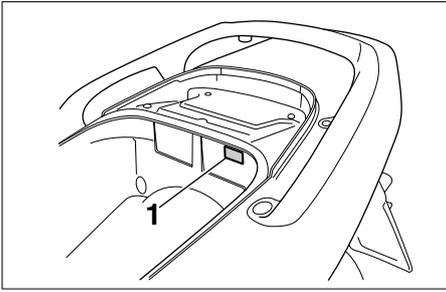
EAU01044

Vehicle identification number

The vehicle identification number is stamped into the frame.

NOTE: _____

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



1. Model label

EAU03757

Model label

The model label is affixed to the location shown. Record the information on this label in the space provided. This information will be needed when ordering spare parts from a Yamaha dealer.

INDEX

A

- Acceleration and deceleration5-2
- Air filter element, cleaning6-19
- Anti-theft alarm (optional)3-5

B

- Battery6-32
- Brake fluid level, checking6-27
- Brake fluid, changing6-28
- Brake lever (front)3-7
- Brake lever (rear)3-8
- Brake levers, lubricating6-28
- Braking5-3

C

- Carburetors, adjusting6-21
- Care7-1
- Centerstand and sidestand, checking
and lubricating6-30
- Chain drive oil6-16
- Clock3-5
- Conversion table8-5
- Coolant6-17
- Coolant temperature gauge3-4
- Cowlings and panels, removing and
installing6-6

E

- Engine break-in5-4
- Engine idling speed6-21
- Engine oil and oil filter cartridge6-12

F

- Front and rear brake levers6-25
- Front and rear brake pads, checking6-26
- Front fork, checking6-30
- Fuel3-9
- Fuel consumption, tips for reducing5-3
- Fuel gauge3-4
- Fuel tank cap3-8
- Fuses, replacing6-34

H

- Handlebar switches3-6
 - Pass switch3-6
 - Dimmer switch3-6
 - Turn signal switch3-6
- Horn switch3-6
- Engine stop switch3-7
- Start switch3-7
- Headlight bulb, replacing6-35
- Helmet holder3-11

I

- Identification numbers9-1
- Ignition circuit cut-off system3-13
- Indicator lights3-2
 - Turn signal indicator lights3-3
 - High beam indicator light3-3
 - Oil change indicator light3-2
 - V-belt replacement indicator light3-3

K

- Key identification number9-1

M

- Main switch/steering lock3-1
- Model label9-2

P

- Parking5-4
- Part locations2-1
- Periodic maintenance and lubrication
chart6-3
- Pre-operation check list4-1

R

- Rider backrest, adjusting3-10

S

- Safe-riding points1-2
- Seat3-9
- Sidestand3-12
- Self-diagnosis device3-6
- Spark plugs, checking6-9
- Specifications8-1
- Speedometer unit3-3
- Starting the engine5-1
- Starting off5-2
- Steering, checking6-31
- Storage7-4
- Storage compartments3-12

T

- Throttle cable free play, adjusting6-22
- Throttle grip and cable, checking and
lubricating6-29
- Tires6-23

Tool kit.....6-1
Troubleshooting.....6-36
Troubleshooting charts.....6-37
Turn signal switch.....3-6

V

Valve clearance, adjusting6-22
Vehicle identification number9-1

W

Wheel bearings, checking6-32
Wheels6-25



PRINTED ON RECYCLED PAPER

PRINTED IN JAPAN
2001-5-0.4x1(E) 