 Read this manual carefully before operating this vehicle.

OWNER'S MANUAL

RAV4

YW50FD

LIT-11626-26-39

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1CD-F8199-11

EAU10042

⚠ WARNING

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

YAMAHA

LIT-CALIF-65-01

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

INTRODUCTION

EAU10092

Congratulations on your purchase of the Yamaha YW50FD. This model is the result of Yamaha's vast experience in the production of fine sporting, touring, and pacesetting racing machines. It represents the high degree of craftsmanship and reliability that have made Yamaha a leader in these fields.

This manual will give you an understanding of the operation, inspection, and basic maintenance of this scooter. If you have any questions concerning the operation or maintenance of your scooter, please consult a Yamaha dealer.

The design and manufacture of this Yamaha scooter fully comply with the emissions standards for clean air applicable at the date of manufacture. Yamaha has met these standards without reducing the performance or economy of operation of the scooter. To maintain these high standards, it is important that you and your Yamaha dealer pay close attention to the recommended maintenance schedules and operating instructions contained within this manual.

Yamaha continually seeks advancements in product design and quality. Therefore, while this manual contains the most current product information available at the time of printing, there may be minor discrepancies between your scooter and this manual. If there is any question concerning this manual, please consult a Yamaha dealer.

EWA12581




WARNING

Please read this manual and the “YOU AND YOUR MOTORCYCLE: RIDING TIPS” booklet carefully and completely before operating this scooter. Do not attempt to operate this scooter until you have attained adequate knowledge of its controls and operating features and until you have been trained in safe and proper riding techniques. Regular inspections and careful maintenance, along with good riding skills, will ensure that you safely enjoy the capabilities and reliability of this scooter.

IMPORTANT MANUAL INFORMATION

EAU10133

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

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

*Product and specifications are subject to change without notice.

IMPORTANT MANUAL INFORMATION

EAUT2191

**YW50FD
OWNER'S MANUAL
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YAMAHA MOTOR CORPORATION,

U.S.A. RIVA LIMITED

WARRANTY 9-7

YAMAHA EXTENDED SERVICE

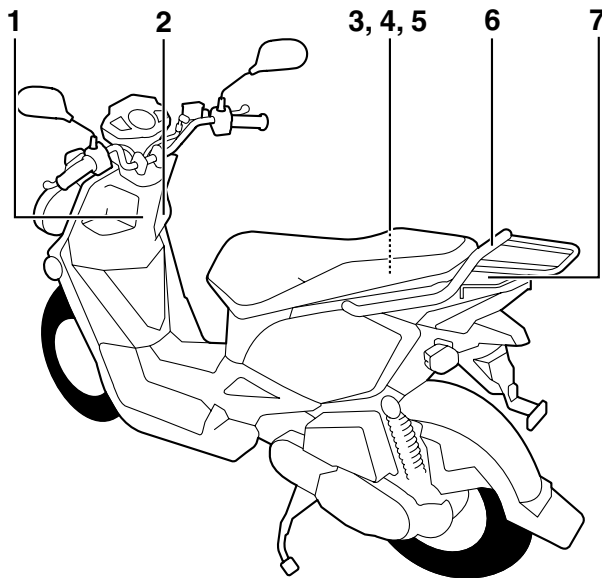
(Y.E.S.) 9-9

LOCATION OF IMPORTANT LABELS

EAU10384

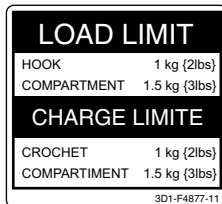
Read and understand all of the labels on your vehicle. They contain important information for safe and proper operation of your vehicle. Never remove any labels from your vehicle. If a label becomes difficult to read or comes off, a replacement label is available from your Yamaha dealer.

1

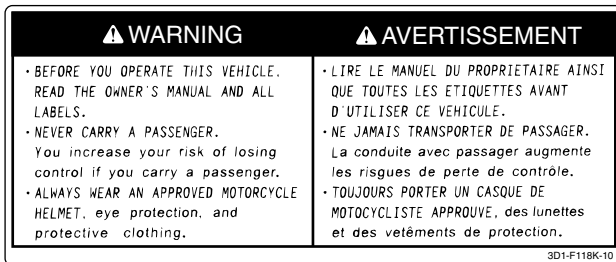


LOCATION OF IMPORTANT LABELS

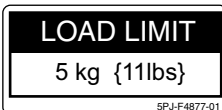
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2



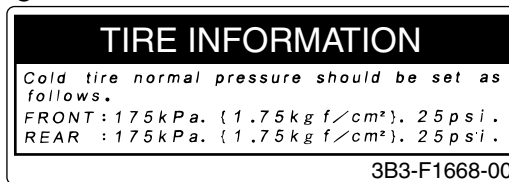
3



4



5



6



7



SAFETY INFORMATION

EAU10248

Be a Responsible Owner

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

Scooters are single-track vehicles.

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

He or she should:

- Obtain thorough instructions from a competent source on all aspects of scooter operation.
- Observe the warnings and maintenance requirements in this Owner's Manual.
- Obtain qualified training in safe and proper riding techniques.
- Obtain professional technical service as indicated in this Owner's Manual and/or when made necessary by mechanical conditions.
- Never operate a scooter without proper training or instruction. Take a training course. Beginners

should receive training from a certified instructor. Contact an authorized scooter dealer to find out about the training courses nearest you.

Safe Riding

Perform the pre-operation checks each time you use the vehicle to make sure it is in safe operating condition. Failure to inspect or maintain the vehicle properly increases the possibility of an accident or equipment damage. See page 4-2 for a list of pre-operation checks.

- This scooter is designed to carry the operator only. No passengers.
- The failure of motorists to detect and recognize scooters in traffic is the predominating cause of automobile/scooter accidents. Many accidents have been caused by an automobile driver who did not see the scooter. Making yourself conspicuous appears to be very effective in reducing the chance of this type of acci-

dent.

Therefore:

- Wear a brightly colored jacket.
- Use extra caution when you are approaching and passing through intersections, since intersections are the most likely places for scooter accidents to occur.
- Ride where other motorists can see you. Avoid riding in another motorist's blind spot.
- Never maintain a scooter without proper knowledge. Contact an authorized scooter dealer to inform you on basic scooter maintenance. Certain maintenance can only be carried out by certified staff.
- Many accidents involve inexperienced operators. In fact, many operators who have been involved in accidents do not even have a current driver's license.
- Make sure that you are qualified and that you only lend your scooter to other qualified op-

- erators.
- Know your skills and limits. Staying within your limits may help you to avoid an accident.
 - We recommend that you practice riding your scooter where there is no traffic until you have become thoroughly familiar with the scooter and all of its controls.
 - Many accidents have been caused by error of the scooter operator. A typical error made by the operator is veering wide on a turn due to excessive speed or undercornering (insufficient lean angle for the speed).
 - Always obey the speed limit and never travel faster than warranted by road and traffic conditions.
 - Always signal before turning or changing lanes. Make sure that other motorists can see you.
 - The posture of the operator is important for proper control. The operator should keep both hands on the handlebar and both feet

on the operator footrests during operation to maintain control of the scooter.

- Never ride under the influence of alcohol or other drugs.
- This scooter is designed for on-road use only. It is not suitable for off-road use.

Protective Apparel

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

- Always wear an approved helmet.
- Wear a face shield or goggles. Wind in your unprotected eyes could contribute to an impairment of vision that could delay seeing a hazard.
- The use of a jacket, substantial shoes, trousers, gloves, etc., is effective in preventing or reducing abrasions or lacerations.
- Never wear loose-fitting clothes, otherwise they could catch on the control levers or wheels and

cause injury or an accident.

- Always wear protective clothing that covers your legs, ankles, and feet. The engine or exhaust system become very hot during or after operation and can cause burns.

Avoid Carbon Monoxide Poisoning

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

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

SAFETY INFORMATION

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

Loading

Adding accessories or cargo to your scooter can adversely affect stability and handling if the weight distribution of the scooter is changed. To avoid the possibility of an accident, use extreme caution when adding cargo or accessories to your scooter. Use extra care when riding a scooter that has added cargo or accessories. Here, along with the information about accessories below, are some general guidelines to follow if loading cargo to

your scooter:

The total weight of the operator, accessories and cargo must not exceed the maximum load limit. Operation of an overloaded vehicle could cause an accident.

Maximum load:
85 kg (187 lb)

When loading within this weight limit, keep the following in mind:

- Cargo and accessory weight should be kept as low and close to the scooter as possible. Securely pack your heaviest items as close to the center of the vehicle as possible and make sure to distribute the weight as evenly as possible on both sides of the scooter to minimize imbalance or instability.
- Shifting weights can create a sudden imbalance. Make sure that accessories and cargo are securely attached to the scooter before riding. Check accessory mounts and cargo restraints frequently.

- Properly adjust the suspension for your load (suspension-adjustable models only), and check the condition and pressure of your tires.
- Never attach any large or heavy items to the handlebar, front fork, or front fender. Such items can create unstable handling or a slow steering response.
- **This vehicle is not designed to pull a trailer or to be attached to a sidecar.**

Genuine Yamaha Accessories

Choosing accessories for your vehicle is an important decision. Genuine Yamaha accessories, which are available only from a Yamaha dealer, have been designed, tested, and approved by Yamaha for use on your vehicle. Many companies with no connection to Yamaha manufacture parts and accessories or offer other modifications for Yamaha vehicles. Yamaha is not in a position to test the products that these aftermarket companies pro-

duce. Therefore, Yamaha can neither endorse nor recommend the use of accessories not sold by Yamaha or modifications not specifically recommended by Yamaha, even if sold and installed by a Yamaha dealer.

Aftermarket Parts, Accessories, and Modifications

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

- Never install accessories or carry

cargo that would impair the performance of your scooter. Carefully inspect the accessory before using it to make sure that it does not in any way reduce ground clearance or cornering clearance, limit suspension travel, steering travel or control operation, or obscure lights or reflectors.

- Accessories fitted to the handlebar or the front fork area can create instability due to improper weight distribution or aerodynamic changes. If accessories are added to the handlebar or front fork area, they must be as lightweight as possible and should be kept to a minimum.
- Bulky or large accessories may seriously affect the stability of the scooter due to aerodynamic effects. Wind may attempt to lift the scooter, or the scooter may become unstable in cross winds. These accessories may also cause instability when passing or being passed by large vehicles.

- Certain accessories can displace the operator from his or her normal riding position. This improper position limits the freedom of movement of the operator and may limit control ability, therefore, such accessories are not recommended.
- Use caution when adding electrical accessories. If electrical accessories exceed the capacity of the scooter's electrical system, an electric failure could result, which could cause a dangerous loss of lights or engine power.

Aftermarket Tires and Rims

The tires and rims that came with your scooter were designed to match the performance capabilities and to provide the best combination of handling, braking, and comfort. Other tires, rims, sizes, and combinations may not be appropriate. Refer to page 6-17 for tire specifications and more information on replacing your tires.



SAFETY INFORMATION

Transporting the Scooter

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

- Remove all loose items from the scooter.
- Point the front wheel straight ahead on the trailer or in the truck bed, and choke it in a rail to prevent movement.
- Secure the scooter with tie-downs or suitable straps that are attached to solid parts of the scooter, such as the frame or upper front fork triple clamp (and not, for example, to rubber-mounted handlebars or turn signals, or parts that could break). Choose the location for the straps carefully so the straps will not rub against painted surfaces during transport.
- The suspension should be compressed somewhat by the tie-downs, if possible, so that the scooter will not bounce excessively during transport.

Further safe-riding points

EAU45371

- Make 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 and linings could get wet when you wash the scooter. After washing the scooter, check the brakes before

riding.

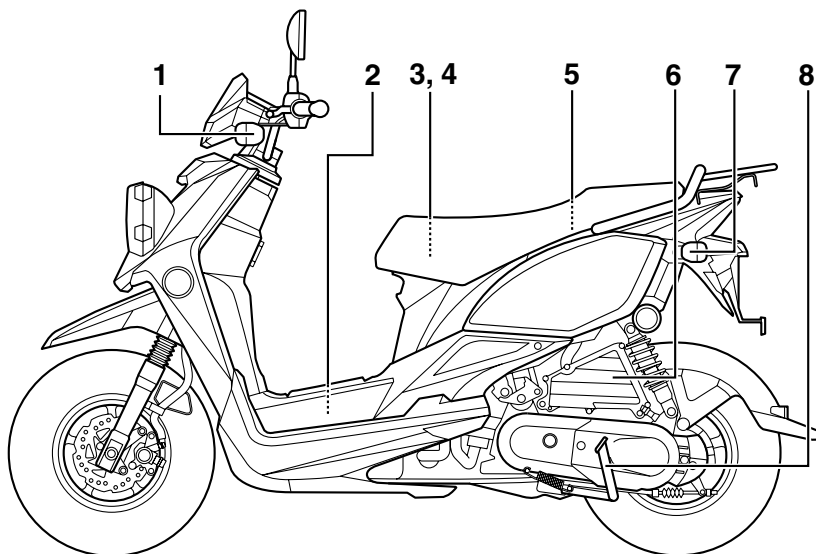
- Always wear a helmet, gloves, trousers (tapered around the cuff and ankle so they do not flap), and a bright colored jacket.
- Do not carry too much luggage on the scooter. An overloaded scooter is unstable. Use a strong cord to secure any luggage to the carriers. A loose load will affect the stability of the scooter and could divert your attention from the road. (See page 1-5.)

DESCRIPTION

EAU10410

Left view

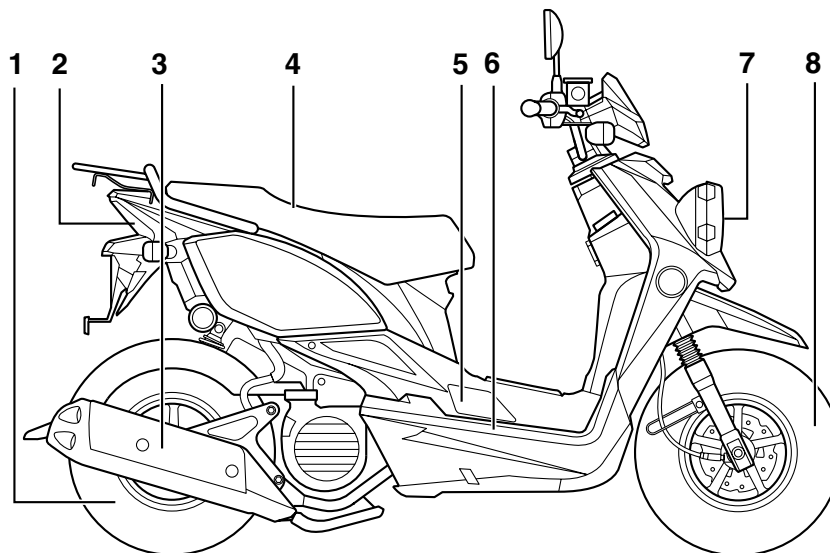
2



1. Front turn signal light (page 6-28)
2. Fuel tank cap (page 3-6)
3. Helmet holder (page 3-9)
4. Battery (page 6-25)
5. Storage compartment (page 3-10)
6. Air filter (page 6-15)
7. Rear turn signal light (page 6-28)

8. Centerstand (page 6-23)

Right view



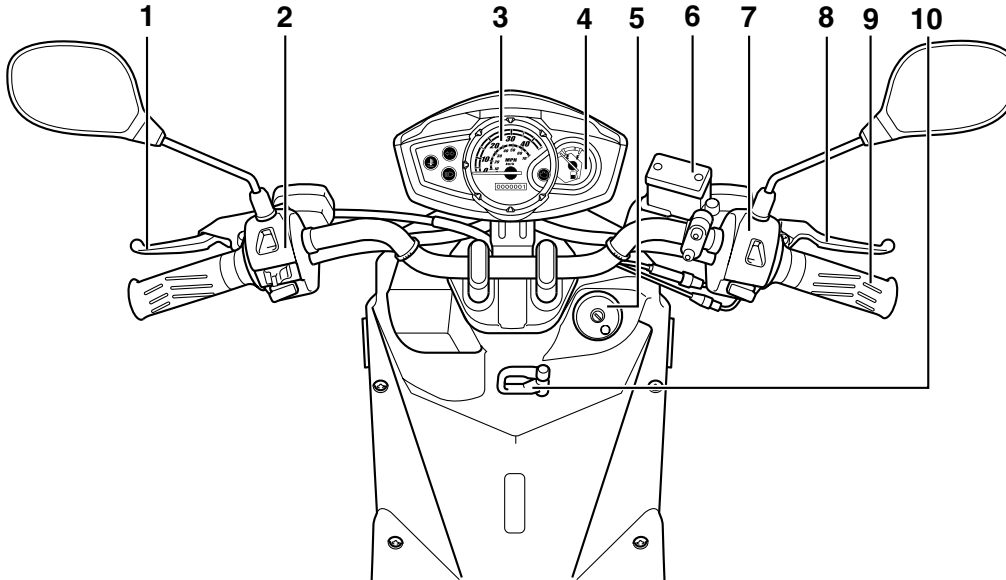
1. Rear wheel (page 6-17)
2. Tail/brake light (page 6-28)
3. Muffler (page 3-8)
4. Seat (page 3-8)
5. Spark plug (page 6-9)
6. Coolant reservoir (page 6-13)
7. Headlight (page 6-27)

8. Front wheel (page 6-17)

DESCRIPTION

EAU10430

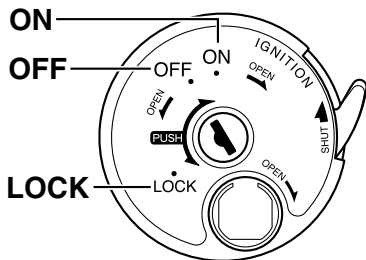
Controls and instruments



1. Rear brake lever (page 3-5)
2. Left handlebar switches (page 3-4)
3. Speedometer unit (page 3-3)
4. Fuel gauge (page 3-4)
5. Main switch/steering lock (page 3-1)
6. Brake fluid reservoir (page 6-21)
7. Right handlebar switches (page 3-4)
8. Front brake lever (page 3-5)
9. Throttle grip (page 5-2)
10. Luggage holder (page 3-11)

EAU45440

Main switch/steering lock



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

TIP

The main switch/steering lock is equipped with a keyhole cover. (See page 3-2.)

EAUT2060

ON

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

TIP

The headlight comes on automatically when the engine is started and stays on until the key is turned to "OFF", even if the engine stalls.

EAU10661

OFF

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

EWA10061



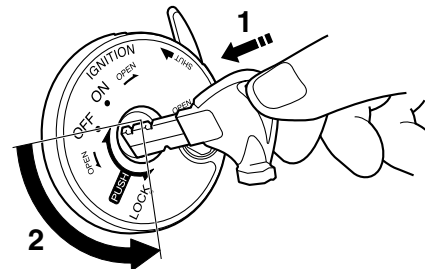
Never turn the key to "OFF" or "LOCK" while the vehicle is moving. Otherwise the electrical systems will be switched off, which may result in loss of control or an accident.

EAU10684

LOCK

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

To lock the steering

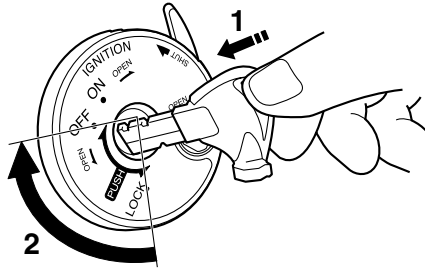


1. Push.
2. Turn.

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.

INSTRUMENT AND CONTROL FUNCTIONS

To unlock the steering

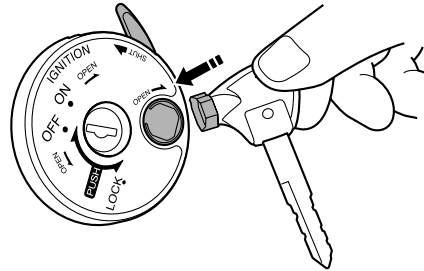


1. Push.
2. Turn.

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

Keyhole cover

EAU2111



To open the keyhole cover

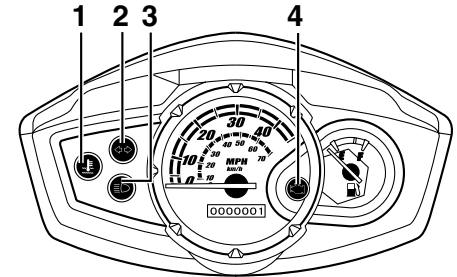
Insert the key bow into the keyhole cover receptacle as shown, and then turn the key to the right to open the cover.

To close the keyhole cover

Push the keyhole cover lever inward and the keyhole cover will close.

Indicator and warning lights

EAU11006



1. Coolant temperature warning light “
2. Turn signal indicator light “
3. High beam indicator light “
4. Engine trouble warning light “

Turn signal indicator light “

EAU11020

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

High beam indicator light “

EAU11080

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

EAU11446

Coolant temperature warning light



This warning light comes on if the engine overheats. If this occurs, stop the engine immediately and allow the engine to cool.

The electrical circuit of the warning light can be checked by turning the key to "ON". The warning light should come on for a few seconds, and then go off.

If the warning light does not come on initially when the key is turned to "ON", or if the warning light remains on, have a Yamaha dealer check the electrical circuit.

ECA10021

NOTICE

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

TIP

- For radiator-fan-equipped vehicles, the radiator fan(s) automatically switch on or off according

to the coolant temperature in the radiator.

- If the engine overheats, see page 6-31 for further instructions.

EAUT1934

Engine trouble warning light



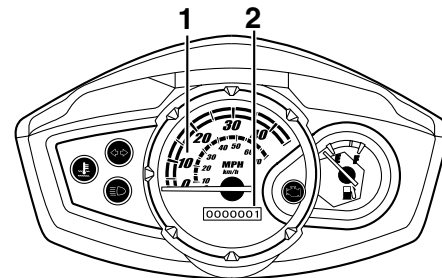
This warning light flashes or stays on if an electrical circuit monitoring the engine is not working correctly. If this occurs, have a Yamaha dealer check the self-diagnosis system.

The electrical circuit of the warning light can be checked by turning the key to "ON". The warning light should come on for a few seconds, and then go off.

If the warning light does not come on initially when the key is turned to "ON", or if the warning light remains on, have a Yamaha dealer check the electrical circuit.

EAUT1821

Speedometer unit



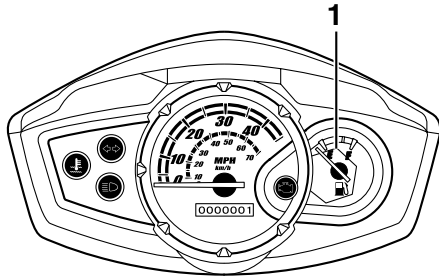
1. Speedometer
2. Odometer

The speedometer unit is equipped with a speedometer and an odometer. The speedometer shows the riding speed. The odometer shows the total distance traveled.

INSTRUMENT AND CONTROL FUNCTIONS

Fuel gauge

EAU3470



1. 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 orange line, refuel as soon as possible.

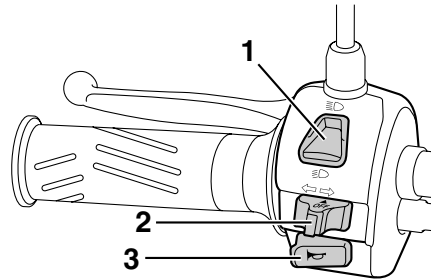
TIP

Do not allow the fuel tank to empty itself completely.

Handlebar switches

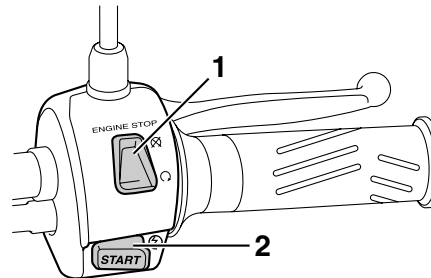
EAU1234A

Left



1. Dimmer switch “D/E”
2. Turn signal switch “↔”
3. Horn switch “📢”

Right



1. Engine stop switch “O/X”
2. Start switch “3”

Dimmer switch “D/E”

EAU12400

Set this switch to “D” for the high beam and to “E” for the low beam.

Turn signal switch “↔”

EAU12460

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

Horn switch “📢”

EAU12500

Press this switch to sound the horn.

Engine stop switch “O/X”

EAU12660

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

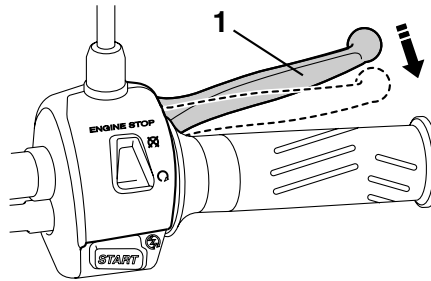
INSTRUMENT AND CONTROL FUNCTIONS

Start switch “”

Push this switch while applying the front or rear brake to crank the engine with the starter. See page 5-1 for starting instructions prior to starting the engine.

EAUM1132

Front brake lever

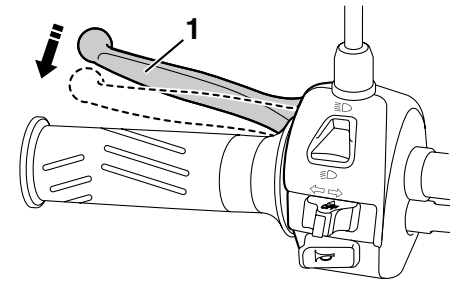


1. Front brake lever

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

EAU12901

Rear brake lever



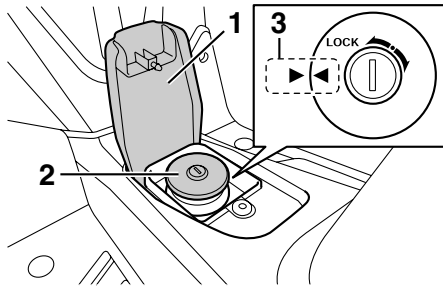
1. Rear brake lever

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

INSTRUMENT AND CONTROL FUNCTIONS

EAUT2011

Fuel tank cap



1. Fuel tank cap lid
2. Fuel tank cap
3. Match marks

To remove the fuel tank cap

Open the lid, insert the key into the lock, and then turn it 1/4 turn clockwise. The lock will be released and the fuel tank cap can be removed.

To install the fuel tank cap

1. Insert the fuel tank cap into the tank opening with the key inserted in the lock and with the marks on the cap and tank aligned.
2. Turn the key counterclockwise to the original position, remove it, and then close the lid.

TIP

The fuel tank cap cannot be installed unless the key is in the lock. In addition, the key cannot be removed if the cap is not properly installed and locked.

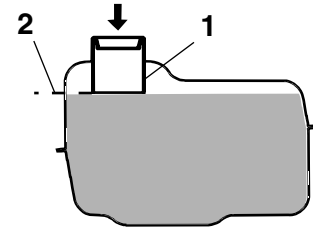
WARNING

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

EWA10131

Fuel

EAU13212



ZALM00*

1. Fuel tank filler tube
2. Maximum fuel level

Make sure there is sufficient gasoline in the tank.

WARNING

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

EWA10881

1. Before refueling, turn off the engine and be sure that no one is sitting on the vehicle. Never refuel while smoking, or while in the vicinity of sparks, open flames, or other sources of ignition such as

INSTRUMENT AND CONTROL FUNCTIONS

the pilot lights of water heaters and clothes dryers.

2. Do not overfill the fuel tank. Stop filling when the fuel reaches the bottom of the filler tube. Because fuel expands when it heats up, heat from the engine or the sun can cause fuel to spill out of the fuel tank.
3. Wipe up any spilled fuel immediately. **NOTICE: Immediately wipe off spilled fuel with a clean, dry, soft cloth, since fuel may deteriorate painted surfaces or plastic parts.**^[ECA10071]
4. Be sure to securely close the fuel tank cap.

EWA15151

WARNING

Gasoline is poisonous and can cause injury or death. Handle gasoline with care. Never siphon gasoline by mouth. If you should swallow some gasoline or inhale a lot of gasoline vapor, or get some gasoline in your eyes, see your doctor immediately. If gasoline spills on your skin, wash with soap and water. If gasoline spills on your

clothing, change your clothes.

EAU36083

Recommended fuel
UNLEADED GASOLINE ONLY
Fuel tank capacity:
4.5 L (1.19 US gal, 0.98 Imp.gal)

ECA11400

NOTICE

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

Your Yamaha engine has been designed to use unleaded gasoline with a pump octane number $[(R+M)/2]$ of 86 or higher, or a research octane number of 91 or higher. If knocking (or pinging) occurs, use a gasoline of a different brand or premium unleaded fuel. Use of unleaded fuel will extend spark plug life and reduce maintenance costs.

Gasohol

There are two types of gasohol: gasohol containing ethanol and that containing methanol. Gasohol containing ethanol can be used if the ethanol content does not exceed 10% (E10). Gasohol containing methanol is not recommended by Yamaha because it can cause damage to the fuel system or vehicle performance problems.

INSTRUMENT AND CONTROL FUNCTIONS

EAU13445

ECA10701

EAUT2541

Catalytic converters

This vehicle is equipped with catalytic converters in the exhaust system.

EWA10862

WARNING

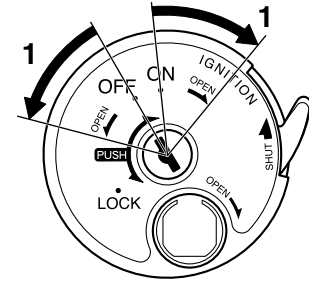
The exhaust system is hot after operation. To prevent a fire hazard or burns:

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

NOTICE

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

Seat



1. Open.

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 to the “OPEN” position. If the main switch is in the “ON” position, turn the key clockwise to the “OPEN” position.

TIP

Do not push inward when turning the key from “OFF” to “OPEN” or from “ON” to “OPEN”.

INSTRUMENT AND CONTROL FUNCTIONS

3. Fold the seat up.

To close the seat

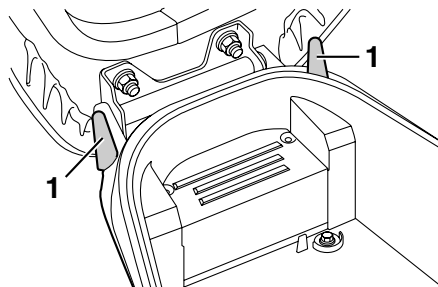
1. Fold the seat down, and then push it down to lock it in place.
2. Remove the key from the main switch if the scooter will be left unattended.

TIP

Make sure that the seat is properly secured before riding.

Helmet holder

EAU14301



1. Helmet holder

The helmet holder is located under the seat.

To secure a helmet to the helmet holder

1. Open the seat. (See page 3-8.)
2. Attach the helmet to the helmet holder, and then securely close the seat. **WARNING! Never ride with a helmet attached to the helmet holder, since the helmet may hit objects, causing loss of control and possibly an accident.**^[EWA10161]

To release the helmet from the helmet holder

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

INSTRUMENT AND CONTROL FUNCTIONS

Storage compartments

EAUT1717

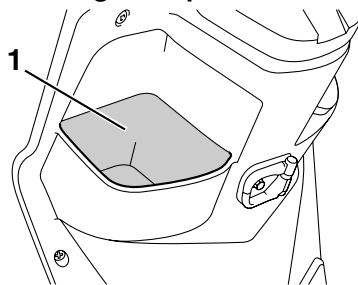
ECA17840

NOTICE

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

- Since the storage compartments accumulate heat when exposed to the sun and/or the engine heat, do not store anything susceptible to heat, consumables or flammable items inside them.
- To avoid humidity from spreading through the storage compartments, wrap wet articles in a plastic bag before storing them in the compartments.
- Since the storage compartments may get wet while the vehicle is being washed, wrap any articles stored in the compartments in a plastic bag.
- Do not keep anything valuable or breakable in the storage compartments.

Front storage compartment



1. Front storage compartment

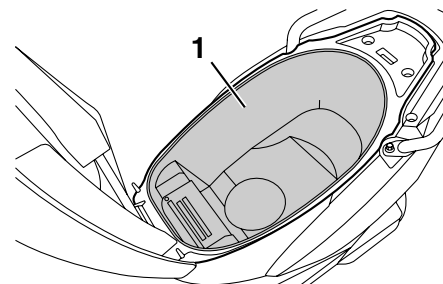
WARNING

EWA11191

- Do not exceed the load limit of 1.5 kg (3.3 lb) for the front storage compartment.
- Do not exceed the maximum load of 85 kg (187 lb) for the vehicle.

Rear storage compartment

The rear storage compartment is located under the seat. (See page 3-8.)



1. Rear storage compartment

WARNING

EWAT1051

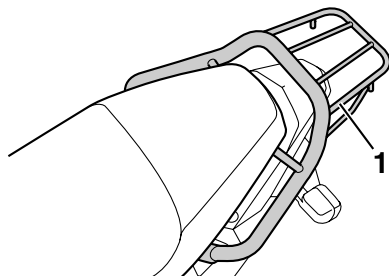
- Do not exceed the load limit of 5 kg (11 lb) for the rear storage compartment.
- Do not exceed the maximum load of 85 kg (187 lb) for the vehicle.

TIP

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

Carrier

EAU15112



1. Carrier

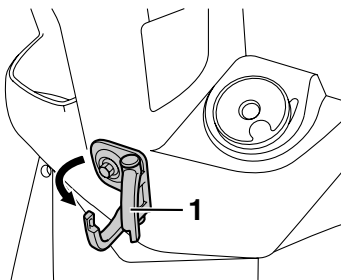
EWA10171

⚠ WARNING

- Do not exceed the load limit of 3 kg (6.6 lb) for the carrier.
- Do not exceed the maximum load of 85 kg (187 lb) for the vehicle.

Luggage holder

EAUT3480



1. Luggage holder

Pull the luggage holder outward, then move the top portion of the luggage holder as shown in order to hook items on it.

EWAT1090

⚠ WARNING

- Do not exceed the load limit of 1 kg (2.2 lb) for the luggage holder.
- Do not exceed the maximum load of 85 kg (187 lb) for the vehicle.

FOR YOUR SAFETY - PRE-OPERATION CHECKS

EAU15596

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

EWA11151

WARNING

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

FOR YOUR SAFETY - PRE-OPERATION CHECKS

Before using this vehicle, check the following points:

ITEM	CHECKS	PAGE
Fuel	<ul style="list-style-type: none"> • Check fuel level in fuel tank. • Refuel if necessary. • Check fuel line for leakage. 	3-6
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. 	6-10
Final transmission oil	<ul style="list-style-type: none"> • Check vehicle for oil leakage. 	6-12
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. 	6-13
Front brake	<ul style="list-style-type: none"> • Check operation. • If soft or spongy, have Yamaha dealer bleed hydraulic system. • Check brake pads for wear. • Replace if necessary. • Check fluid level in reservoir. • If necessary, add specified brake fluid to specified level. • Check hydraulic system for leakage. 	6-18~6-22
Rear brake	<ul style="list-style-type: none"> • Check operation. • Lubricate cable if necessary. • Check lever free play. • Adjust if necessary. 	6-19~6-20
Throttle grip	<ul style="list-style-type: none"> • Make sure that operation is smooth. • Check throttle grip free play. • If necessary, have Yamaha dealer adjust throttle grip free play and lubricate cable and grip housing. 	6-16
Control cables	<ul style="list-style-type: none"> • Make sure that operation is smooth. • Lubricate if necessary. 	6-22
Wheels and tires	<ul style="list-style-type: none"> • Check for damage. • Check tire condition and tread depth. • Check air pressure. • Correct if necessary. 	6-17~6-18

FOR YOUR SAFETY - PRE-OPERATION CHECKS

ITEM	CHECKS	PAGE
Brake levers	<ul style="list-style-type: none">• Make sure that operation is smooth.• Lubricate lever pivoting if necessary.	6-23
Centerstand	<ul style="list-style-type: none">• Make sure that operation is smooth.• Lubricate pivots if necessary.	6-23
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, 3-4
Engine stop switch	<ul style="list-style-type: none">• Check operation.	3-4

OPERATION AND IMPORTANT RIDING POINTS

EAU15951

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

EWA10271

WARNING

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

EAU45310

TIP

This model is equipped with a lean angle sensor to stop the engine in case of a turnover. To start the engine after a turnover, be sure to turn the main switch to "OFF" and then to "ON". Failing to do so will prevent the engine from starting even though the engine will crank when pushing the start switch.

EAUT1513

Starting a cold engine

ECA10250

cold!

NOTICE

See page 5-3 for engine break-in instructions prior to operating the vehicle for the first time.

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

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

ECA11042

NOTICE

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

OPERATION AND IMPORTANT RIDING POINTS

Starting off

EAU16761

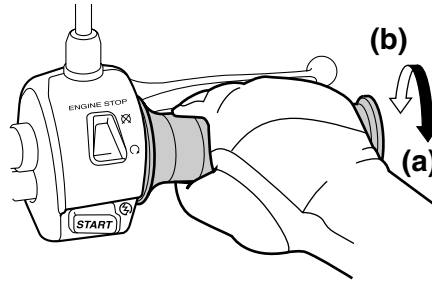
TIP

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 signals on.
4. Check for oncoming traffic, and then slowly turn the throttle grip (on the right) in order to take off.
5. Switch the turn signals off.

Acceleration and deceleration

EAU16780



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

Braking

EAU16793

EWA10300

! WARNING

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

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

OPERATION AND IMPORTANT RIDING POINTS

Tips for reducing fuel consumption

EAU16820

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

- Avoid high engine speeds during acceleration.
- Avoid high engine speeds with no load on the engine.
- Turn the engine off instead of letting it idle for an extended length of time (e.g., in traffic jams, at traffic lights or at railroad crossings).

Engine break-in

EAU16830

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

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

0 ~ 150 km (0 ~ 90 mi)

EAU16951

Avoid prolonged operation above 1/3 throttle.

After every hour of operation, stop the engine, and then let it cool for five to ten minutes.

Vary the engine speed from time to time. Do not operate the engine at one set throttle position.

150 ~ 500 km (90 ~ 300 mi)

Avoid prolonged operation above 1/2 throttle.

Rev the engine freely through the gears, but do not use full throttle at any time.

500 ~ 1000 km (300 ~ 600 mi)

Avoid prolonged operation above 3/4 throttle. **NOTICE: After 1000 km (600 mi) of operation, the engine oil must be changed and the oil strainer cleaned.**[ECA10351]

1000 km (600 mi) and beyond

Avoid prolonged full-throttle operation. Vary the speed occasionally.

ECA10270

NOTICE

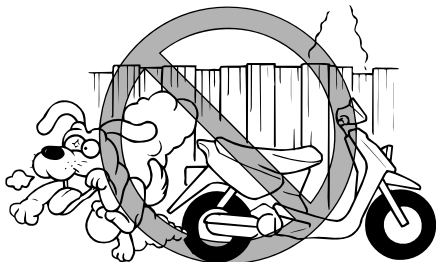
If any engine trouble should occur during the engine break-in period, immediately have a Yamaha dealer check the vehicle.

OPERATION AND IMPORTANT RIDING POINTS

EAU17213

Parking

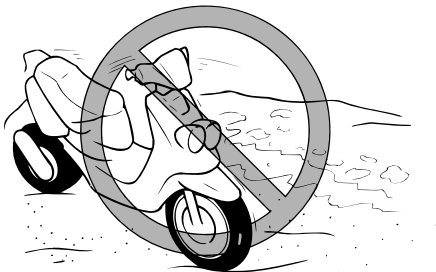
When parking, stop the engine, and then remove the key from the main switch.



ZALM00**

- ans or children are not likely to touch them and be burned.
- Do not park on a slope or on soft ground, otherwise the vehicle may overturn, increasing the risk of a fuel leak and fire.
 - Do not park near grass or other flammable materials which might catch fire.

5



ZALM00**

EWA10311

WARNING

- Since the engine and exhaust system can become very hot, park in a place where pedestri-

PERIODIC MAINTENANCE AND ADJUSTMENT

EAU17244

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

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

EWA10321

WARNING

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

EWA15122

WARNING

Turn off the engine when performing maintenance unless otherwise specified.

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

EWA15460

WARNING

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

EAU17302

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

PERIODIC MAINTENANCE AND ADJUSTMENT

EAU48450

TIP

- From 12000 mi (19000 km) or 36 months, repeat the maintenance intervals starting from 4000 mi (7000 km) or 12 months.
- Items marked with an asterisk require special tools, data and technical skills, have a Yamaha dealer perform the service.

EAU17561

Periodic maintenance chart for the emission control system

NO.	ITEM	ROUTINE	INITIAL	ODOMETER READING				
			600 mi (1000 km) or 1 month	2000 mi (4000 km) or 6 months	4000 mi (7000 km) or 12 months	6000 mi (10000 km) or 18 months	8000 mi (13000 km) or 24 months	10000 mi (16000 km) or 30 months
1	* Fuel line	<ul style="list-style-type: none"> • Check fuel and vacuum hoses for cracks or damage. • Replace if necessary. 		√	√	√	√	√
2	Spark plug	<ul style="list-style-type: none"> • Check condition. • Adjust gap and clean. • Replace at 4000 mi (7000 km) or 12 months and thereafter every 4000 mi (6000 km) or 12 months. 		√	Replace.	√	Replace.	√
3	* Valve clearance	<ul style="list-style-type: none"> • Check and adjust valve clearance when engine is cold. 	√	Every 6000 mi (10000 km)				
4	* Crankcase breather system	<ul style="list-style-type: none"> • Check breather hose for cracks or damage. • Replace if necessary. 		√	√	√	√	√
5	* Fuel injection	<ul style="list-style-type: none"> • Check engine idle speed. 	√	√	√	√	√	√

PERIODIC MAINTENANCE AND ADJUSTMENT

NO.	ITEM	ROUTINE	INITIAL	ODOMETER READING				
			600 mi (1000 km) or 1 month	2000 mi (4000 km) or 6 months	4000 mi (7000 km) or 12 months	6000 mi (10000 km) or 18 months	8000 mi (13000 km) or 24 months	10000 mi (16000 km) or 30 months
6	*	Exhaust system	<ul style="list-style-type: none"> • Check for leakage. • Tighten if necessary. • Replace gasket(s) if necessary. 	√	√	√	√	√
7	*	Air induction system	<ul style="list-style-type: none"> • Check the air cut-off valve, reed valve, and hose for damage. • Replace any damaged parts. 	√	√	√	√	√

PERIODIC MAINTENANCE AND ADJUSTMENT

EAU32126

General maintenance and lubrication chart

NO.	ITEM	ROUTINE	INITIAL	ODOMETER READING				
			600 mi (1000 km) or 1 month	2000 mi (4000 km) or 6 months	4000 mi (7000 km) or 12 months	6000 mi (10000 km) or 18 months	8000 mi (13000 km) or 24 months	10000 mi (16000 km) or 30 months
1	Air filter element	<ul style="list-style-type: none"> Replace. 			√		√	
2	* Front brake	<ul style="list-style-type: none"> Check operation, fluid level, and for fluid leakage. Replace brake pads if necessary. 	√	√	√	√	√	√
3	* Rear brake	<ul style="list-style-type: none"> Check operation. Adjust cable and replace brake shoes if necessary. 	√	√	√	√	√	√
4	* Brake hose	<ul style="list-style-type: none"> Check for cracks or damage. Check for correct routing and clamping. 		√	√	√	√	√
		<ul style="list-style-type: none"> Replace. 	Every 4 years					
5	* Wheels	<ul style="list-style-type: none"> Check runout and for damage. Replace if necessary. 		√	√	√	√	√
6	* Tires	<ul style="list-style-type: none"> Check tread depth and for damage. Replace if necessary. Check air pressure. Correct if necessary. 		√	√	√	√	√
7	* Wheel bearings	<ul style="list-style-type: none"> Check bearings for smooth operation. Replace if necessary. 		√	√	√	√	√

6

PERIODIC MAINTENANCE AND ADJUSTMENT

NO.	ITEM	ROUTINE	INITIAL	ODOMETER READING					
			600 mi (1000 km) or 1 month	2000 mi (4000 km) or 6 months	4000 mi (7000 km) or 12 months	6000 mi (10000 km) or 18 months	8000 mi (13000 km) or 24 months	10000 mi (16000 km) or 30 months	
8	*	Steering bearings	<ul style="list-style-type: none"> Check bearing assemblies for looseness. Moderately repack with lithium-soap-based grease every 8000 mi (13000 km) or 24 months. 	√	√	√	√	Repack.	√
9	*	Chassis fasteners	<ul style="list-style-type: none"> Check all chassis fitting and fasteners. Correct if necessary. 		√	√	√	√	√
10		Front brake lever pivot shaft	<ul style="list-style-type: none"> Apply silicone grease lightly. 		√	√	√	√	√
11		Rear brake lever pivot shaft	<ul style="list-style-type: none"> Apply lithium-soap-based grease lightly. 		√	√	√	√	√
12		Centerstand	<ul style="list-style-type: none"> Check operation. Lubricate. 		√	√	√	√	√
13	*	Front fork	<ul style="list-style-type: none"> Check operation and for oil leakage. Replace if necessary. 		√	√	√	√	√
14	*	Shock absorber assembly	<ul style="list-style-type: none"> Check operation and for oil leakage. Replace if necessary. 		√	√	√	√	√
15		Engine oil	<ul style="list-style-type: none"> Change (warm engine before draining). Check oil level and vehicle for oil leakage. 	√	√	√	√	√	√
16		Engine oil strainer	<ul style="list-style-type: none"> Clean. 	√		√		√	

PERIODIC MAINTENANCE AND ADJUSTMENT

NO.	ITEM	ROUTINE	INITIAL	ODOMETER READING					
			600 mi (1000 km) or 1 month	2000 mi (4000 km) or 6 months	4000 mi (7000 km) or 12 months	6000 mi (10000 km) or 18 months	8000 mi (13000 km) or 24 months	10000 mi (16000 km) or 30 months	
17	*	Cooling system	<ul style="list-style-type: none"> Check coolant level and vehicle for coolant leakage. 		√	√	√	√	√
			<ul style="list-style-type: none"> Change with ethylene glycol anti-freeze coolant. 	Every 3 years					
18		Final transmission oil	<ul style="list-style-type: none"> Check vehicle for oil leakage. Change. 	√		√		√	
19	*	V-belt	<ul style="list-style-type: none"> Replace. 	Every 6250 mi (10000 km)					
20	*	Front and rear brake switches	<ul style="list-style-type: none"> Check operation. 	√	√	√	√	√	√
21	*	Control and meter cables	<ul style="list-style-type: none"> Apply Yamaha chain and cable lube or engine oil thoroughly. 	√	√	√	√	√	√
22	*	Throttle grip	<ul style="list-style-type: none"> Check operation. Check throttle grip free play, and adjust if necessary. Lubricate cable and grip housing. 		√	√	√	√	√
23	*	Lights, signals and switches	<ul style="list-style-type: none"> Check operation. Adjust headlight beam. 	√	√	√	√	√	√

PERIODIC MAINTENANCE AND ADJUSTMENT

EAUT3460

TIP

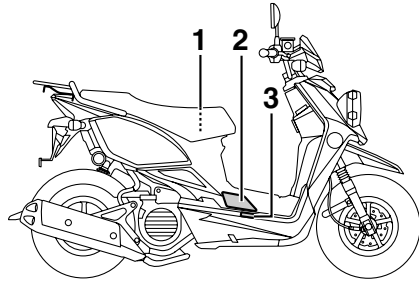
- Air filter
 - This model's air filter is equipped with a disposable oil-coated paper element, which must not be cleaned with compressed air to avoid damaging it.
 - The air filter element needs to be replaced more frequently when riding in unusually wet or dusty areas.
 - Hydraulic brake service
 - After disassembling the brake master cylinder and caliper, always change the fluid. Regularly check the brake fluid level and fill the reservoir as required.
 - Every two years replace the internal components of the brake master cylinder and caliper, and change the brake fluid.
 - Replace the brake hose every four years and if cracked or damaged.
-

PERIODIC MAINTENANCE AND ADJUSTMENT

EAU18771

EAUT3490

Removing and installing panels



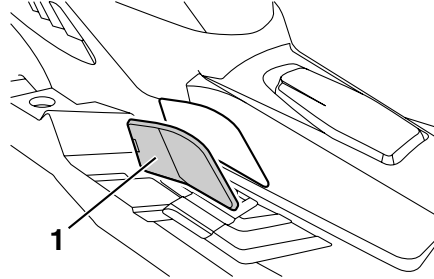
1. Panel C
2. Panel A
3. Panel B

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

Panel A

To remove the panel

Pull the panel outward as shown.



1. Panel A

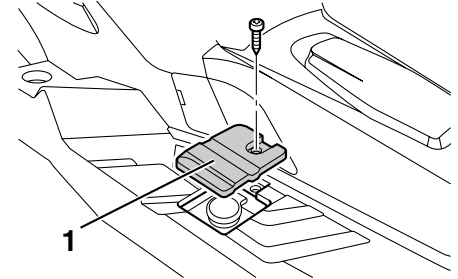
To install the panel

Place the panel into the original position and push it inward to secure.

Panel B

To remove the panel

Remove the screw, and then take the panel off.



1. Panel B

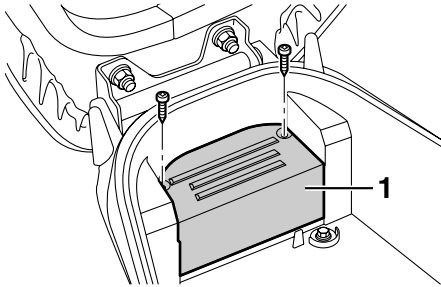
To install the panel

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

PERIODIC MAINTENANCE AND ADJUSTMENT

Panel C

To remove the panel



1. Panel C

1. Open the seat. (See page 3-8.)
2. Remove the screws, and then take the panel off.

To install the panel

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

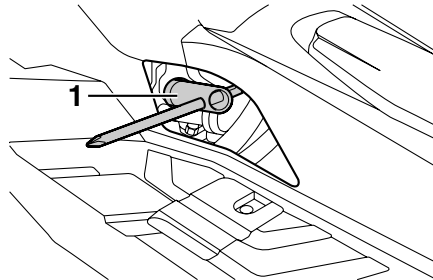
EAUT2070

Checking the spark plug

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

To remove the spark plug

1. Remove panel A. (See page 6-8.)
2. Remove the spark plug cap.



1. Spark plug wrench

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

To check the spark plug

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

TIP

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

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

Specified spark plug:
CR7E (NGK)

PERIODIC MAINTENANCE AND ADJUSTMENT

EAUT1461

To install the 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 (0.028 - 0.031 in)

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:
13 Nm (1.3 m·kgf, 9.4ft·lbf)

TIP

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

specified torque as soon as possible.

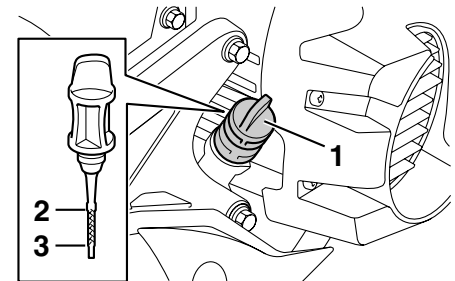
4. Install the spark plug cap.
5. Install the panel.

Engine oil and oil strainer

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

To check the engine oil level

1. Place the vehicle on the center-stand. A slight tilt to the side can result in a false reading.
2. Start the engine, warm it up for several minutes, and then turn it off.



1. Oil filler cap
2. Maximum level mark
3. Minimum level mark

PERIODIC MAINTENANCE AND ADJUSTMENT

3. Wait a few minutes until the oil settles, remove the oil filler cap, wipe the dipstick clean, insert it back into the oil filler hole (without screwing it in), and then remove it again to check the oil level.

TIP

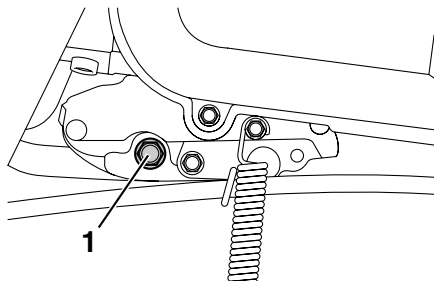
The engine oil should be between the minimum and maximum level marks.

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.
5. Insert the dipstick into the oil filler hole, and then tighten the oil filler cap.

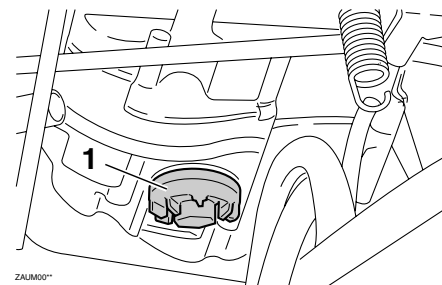
To change the engine oil and clean the oil strainer

1. Start the engine, warm it up for several minutes, and then turn it off.
2. Place an oil pan under the engine to collect the used oil.

3. Remove the engine oil filler cap and the engine oil drain bolts A and B to drain the oil from the crankcase. **NOTICE: When removing the engine oil drain bolt B, the O-ring, compression spring, and oil strainer will fall out. Take care not to lose these parts.** [ECAT1021]



1. Engine oil drain bolt A



1. Engine oil drain bolt B

4. Clean the oil strainer with solvent, and then check it for damage and replace it if necessary.
5. Check the O-ring for damage and replace it if necessary.
6. Install the oil strainer, compression spring, O-ring and engine oil drain bolt B.

TIP

Make sure that the O-ring is properly seated.

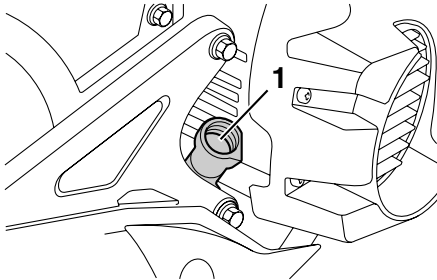
PERIODIC MAINTENANCE AND ADJUSTMENT

EAUT1561

7. Install engine oil drain bolt A, and then tighten both drain bolts to their specified torques.

Tightening torque:

- Engine oil drain bolt A:
23 Nm (2.3 m·kgf, 16.6 ft·lbf)
- Engine oil drain bolt B:
32 Nm (3.2 m·kgf, 23.1 ft·lbf)



1. Oil filler hole
8. Refill with the specified amount of the recommended engine oil, and then install and tighten the oil filler cap.

Recommended engine oil:

See page 8-1.

Oil change quantity:

0.78 L (0.82 US qt, 0.69 Imp.qt)

ECA11670

NOTICE

- Do not use oils with a diesel specification of “CD” or oils of a higher quality than specified. In addition, do not use oils labeled “ENERGY CONSERVING II” or higher.
- Be sure no foreign material enters the crankcase.

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.

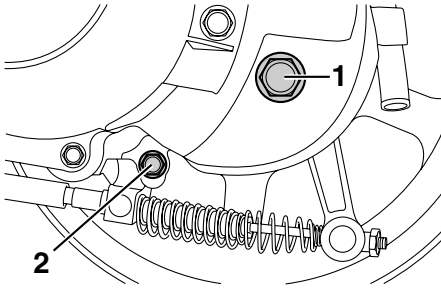
Final transmission oil

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

1. Start the engine, warm it up by riding the scooter for several minutes, and then stop the engine.
2. Place the scooter on the center-stand.
3. Place an oil pan under the final transmission case to collect the used oil.

PERIODIC MAINTENANCE AND ADJUSTMENT

EAU20070



material enters the final transmission case. Make sure that no oil gets on the tire or wheel. [EWA11311]

Tightening torque:

Final transmission oil filler bolt:
23 Nm (2.3 m·kgf, 16.6 ft·lbf)

Recommended final transmission oil:

See page 8-1.

Oil quantity:

0.10 L (0.11 US qt, 0.08 Imp. qt)

1. Final transmission oil filler bolt
2. Final transmission oil drain bolt

4. Remove the oil filler bolt and drain bolt to drain the oil from the final transmission case.
5. Install the final transmission oil drain bolt, and then tighten it to the specified torque.

Tightening torque:

Final transmission oil drain bolt:
13 Nm (1.3 m·kgf, 9.4 ft·lbf)

6. Refill with the specified amount of the recommended final transmission oil, and then install the oil filler bolt and tighten it to the specified torque. **WARNING!** Make sure that no foreign ma-

7. Check the final transmission case for oil leakage. If oil is leaking, check for the cause.

Coolant

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

EAUT1523

To check the coolant level

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

1. Place the vehicle on the centerstand.

TIP

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

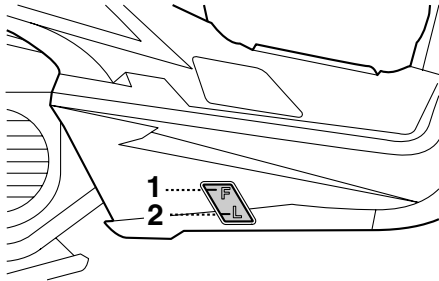
PERIODIC MAINTENANCE AND ADJUSTMENT

reading.

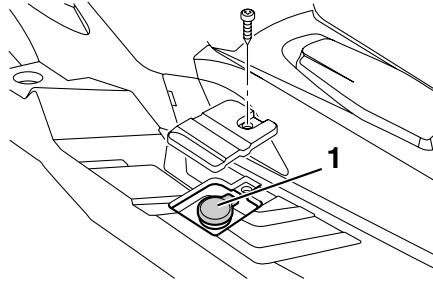
2. Check the coolant level in the coolant reservoir.

TIP

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



1. Maximum level mark
2. Minimum level mark



1. Coolant reservoir cap
3. If the coolant is at or below the minimum level mark, remove panel B and the reservoir cap. (See page 6-8.) **WARNING! Remove only the coolant reservoir cap. Never attempt to remove the radiator cap when the engine is hot.**^[EWA15161]
4. Add coolant or distilled water to raise the coolant to the maximum level mark, and install the coolant reservoir cap and the panel. **NOTICE: If coolant is not available, use distilled water or soft tap water instead. Do not use hard water or salt water since it is harmful to the engine. If**

water has been used instead of coolant, replace it with coolant as soon as possible, otherwise the cooling system will not be protected against frost and corrosion. If water has been added to the coolant, have a Yamaha dealer check the antifreeze content of the coolant as soon as possible, otherwise the effectiveness of the coolant will be reduced.^[ECA10472]

Coolant reservoir capacity:
0.26 L (0.27 US qt, 0.23 Imp.qt)

EAU33031

Changing the coolant

The coolant must be changed at the intervals specified in the periodic maintenance and lubrication chart. Have a Yamaha dealer change the coolant. **WARNING! Never attempt to remove the radiator cap when the engine is hot.**^[EWA10381]

PERIODIC MAINTENANCE AND ADJUSTMENT

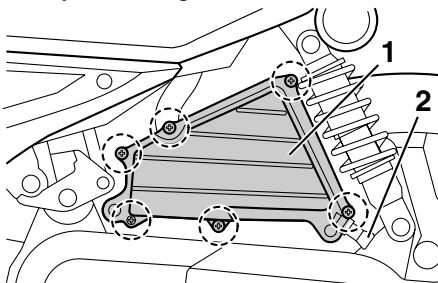
EAUT1491

Replacing the air filter element and cleaning the check hose

The air filter element should be replaced at the intervals specified in the periodic maintenance and lubrication chart. Replace the air filter element more frequently if you are riding in unusually wet or dusty areas. In addition, the air filter check hose must be frequently checked and cleaned if necessary.

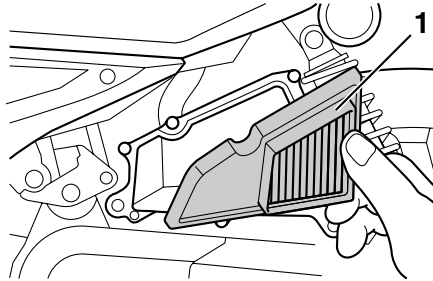
To replace the air filter element

1. Remove the air filter case cover by removing the screws.



1. Air filter case cover
2. Air filter check hose

2. Pull the air filter element out.



1. Air filter element

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

To clean the air filter check hose

1. Check the hose on the side of the air filter case for accumulated dirt

or water.

2. If dirt or water is visible, remove the hose, clean it, and then install it.

PERIODIC MAINTENANCE AND ADJUSTMENT

EAU44734

Checking the engine idling speed

Check the engine idling speed and, if necessary, have it corrected by a Yamaha dealer.

Engine idling speed:
2000 - 2200 r/min

EAU21384

Checking the throttle grip free play

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

EAU21401

Valve clearance

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

PERIODIC MAINTENANCE AND ADJUSTMENT

EAUT2153

Tires

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

Tire air pressure

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

EWA10511



WARNING

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

Tire air pressure* (measured on cold tires):

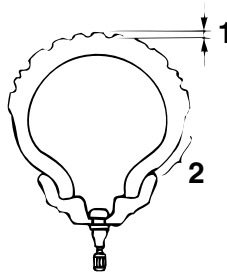
Front:

175 kPa (1.75 kgf/cm², 25 psi)

Rear:

175 kPa (1.75 kgf/cm², 25 psi)

Tire inspection



ZAUM00**

1. Tire tread depth
2. Tire sidewall

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

Minimum tire tread depth (front and rear):

0.8 mm (0.03 in)

Tire information

This scooter is equipped with tubeless tires, tire air valves and cast wheels. Tires age, even if they have not been used or have only been used occasionally. Cracking of the tread and sidewall rubber, sometimes accompanied by carcass deformation, is an evidence of ageing. Old and aged tires shall be checked by tire specialists to ascertain their suitability for further use.

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

Front tire:

Size:

120/90-10 57J

Manufacturer/model:

CHENG SHIN/C6022

Rear tire:

Size:

120/90-10 57J

Manufacturer/model:

CHENG SHIN/C6022

EWA10580



WARNING

- It is dangerous to ride with a

PERIODIC MAINTENANCE AND ADJUSTMENT

worn-out tire. When a tire tread begins to show crosswise lines, have a Yamaha dealer replace the tire immediately.

- The replacement of all wheel- and brake-related parts, including the tires, should be left to a Yamaha dealer, who has the necessary professional knowledge and experience.

Cast wheels

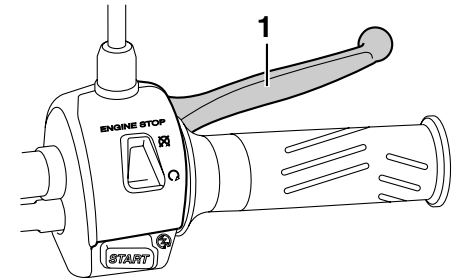
To maximize the performance, durability, and safe operation of your vehicle, note the following points regarding the specified wheels.

- The wheel rims should be checked for cracks, bends, warp- age or other damage before each ride. If any damage is found, have a Yamaha dealer replace the wheel. Do not attempt even the smallest repair to the wheel. A 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.

EAU21962

EAU49350

Checking the front brake lever free play



1. Front brake lever

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

! WARNING

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

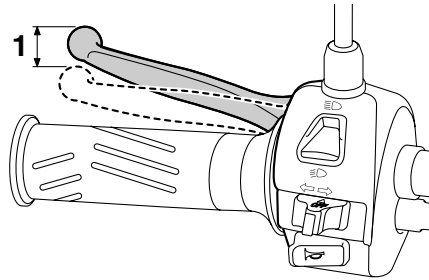
EWA14211

PERIODIC MAINTENANCE AND ADJUSTMENT

control and an accident.

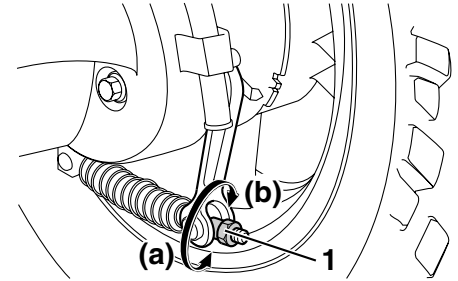
EAU22170

Adjusting the rear brake lever free play



1. Rear brake lever free play

The brake lever free play should measure 10 ~ 20 mm (0.4 ~ 0.8 in) as shown. Periodically check the brake lever free play and, if necessary, adjust it as follows.



1. Adjusting nut

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

EWA10650

! WARNING

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

PERIODIC MAINTENANCE AND ADJUSTMENT

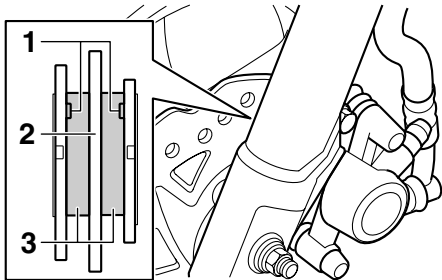
Checking the front brake pads and rear brake shoes

EAU22380

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

Front brake pads

EAU22410



1. Wear indicator
2. Brake disc
3. Brake pad

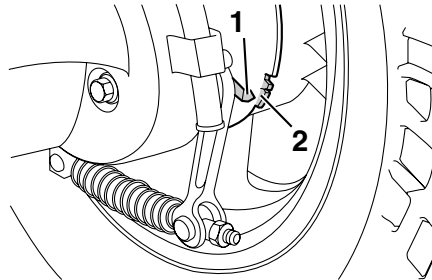
Each front brake pad is provided with a wear indicator, which allows you to check the brake pad wear without having to disassemble the brake. To check the brake pad wear, check the

position of the wear indicator while applying the brake. If a brake pad has worn to the point that the wear indicator almost touches the brake disc, have a Yamaha dealer replace the brake pads as a set.

reaches the wear limit line, have a Yamaha dealer replace the brake shoes as a set.

Rear brake shoes

EAU22540



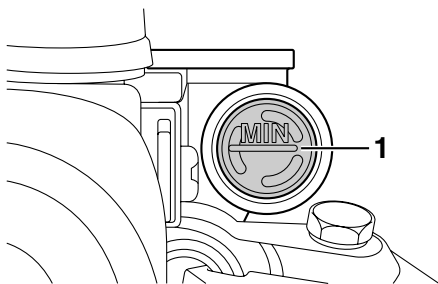
1. Wear indicator
2. Wear limit line

The rear brake is provided with a wear indicator, which allows you to check the brake shoe wear without having to disassemble the brake. To check the brake shoe wear, check the position of the wear indicator while applying the brake. If a brake shoe has worn to the point that the wear indicator

PERIODIC MAINTENANCE AND ADJUSTMENT

Checking the brake fluid level

EAU32345



1. Minimum level mark

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

Specified brake fluid:
DOT 4

EWA15990

! WARNING

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

- **Insufficient brake fluid may allow air to enter the brake sys-**

tem, reducing braking performance.

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

go down. A low brake fluid level may indicate worn brake pads and/or brake system leakage; therefore, be sure to check the brake pads for wear and the brake system for leakage. If the brake fluid level goes down suddenly, have a Yamaha dealer check the cause before further riding.

ECA17640

NOTICE

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

As the brake pads wear, it is normal for the brake fluid level to gradually

PERIODIC MAINTENANCE AND ADJUSTMENT

EAU22721

Changing the brake fluid

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

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

EAU23095

Checking and lubricating the cables

The operation of all control cables and the condition of the cables should be checked before each ride, and the cables and cable ends should be lubricated if necessary. If a cable is damaged or does not move smoothly, have a Yamaha dealer check or replace it. **WARNING! Damage to the outer housing of cables may result in internal rusting and cause interference with cable movement. Replace damaged cables as soon as possible to prevent unsafe conditions.**^[EWA10711]

Recommended lubricant:

Yamaha Chain and Cable Lube or engine oil

EAU23114

Checking and lubricating the throttle grip and cable

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

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

PERIODIC MAINTENANCE AND ADJUSTMENT

Lubricating the front and rear brake levers

EAU43642

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 lubricants:

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

Checking and lubricating the centerstand

EAU23192

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



EWA11301

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

Recommended lubricant:
Lithium-soap-based grease

Checking the front fork

EAU51950

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

To check the condition

Check the front fork for damage and excessive oil leakage.

To check the operation

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

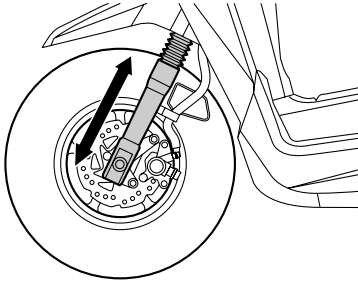
PERIODIC MAINTENANCE AND ADJUSTMENT

ECA10590

EAU45511

NOTICE

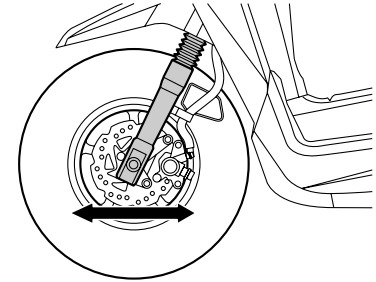
If any damage is found or the front fork does not operate smoothly, have a Yamaha dealer check or repair it.



Checking the steering

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

1. Place the vehicle on the centerstand. **WARNING! To avoid injury, securely support the vehicle so there is no danger of it falling over.**^[EWA10751]
2. Hold the lower ends of the front fork legs and try to move them forward and backward. If any free play can be felt, have a Yamaha dealer check or repair the steering.



PERIODIC MAINTENANCE AND ADJUSTMENT

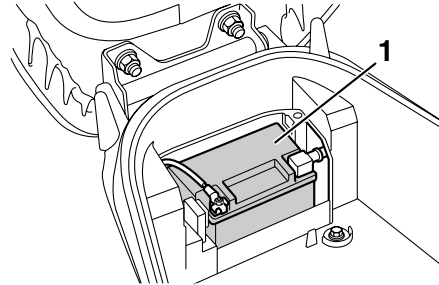
EAU23291

Checking the wheel bearings

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

EAUT2005

Battery



1. Battery

This model is equipped with a VRLA (Valve Regulated Lead Acid) battery. There is no need to check the electrolyte or to add distilled water. However, the battery lead connections need to be checked and, if necessary, tightened.

EWA10760

WARNING

- **Electrolyte is poisonous and dangerous since it contains sulfuric acid, which causes severe burns. Avoid any contact with skin, eyes or clothing and always shield your eyes when**

working near batteries. In case of contact, administer the following **FIRST AID**.

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

6

ECA10620

NOTICE

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

PERIODIC MAINTENANCE AND ADJUSTMENT

The battery is located under the seat. Remove panel C to access the battery. (See page 6-9.)

To charge the battery

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

ECA16521

NOTICE

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

To store the battery

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

NOTICE: When removing the battery, be sure the key is turned to “OFF”, then disconnect the negative lead before disconnecting the positive lead.^[ECA16302]

2. If the battery will be stored for more than two months, check it at least once a month and fully charge it if necessary.
3. Fully charge the battery before installation. **NOTICE:** When installing the battery, be sure the key is turned to “OFF”, then connect the positive lead before connecting the negative lead.^[ECA16840]
4. After installation, make sure that the battery leads are properly connected to the battery terminals.

ECA11053

NOTICE

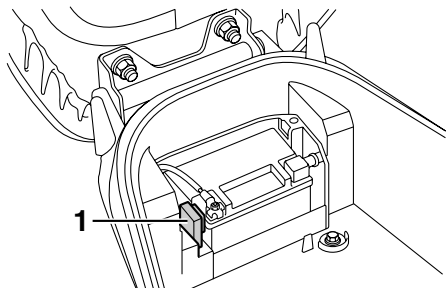
- Always keep the battery charged. Storing a discharged battery can cause permanent battery damage.

- After installing the battery, be sure to turn the main switch from “ON” to “OFF” three times in 3 seconds intervals to initialize the idle speed control system.
-

PERIODIC MAINTENANCE AND ADJUSTMENT

Replacing the fuse

EAUT2023



1. Fuse

The fuse holder is located beside the battery. Remove panel C to access the fuse. (See page 6-9.)

If the fuse is blown, replace it as follows.

1. Turn the key to "OFF" and turn off all electrical circuits.
2. Remove the blown fuse, and then install a new fuse of the specified amperage. **WARNING! Do not use a fuse of a higher amperage rating than recommended to avoid causing extensive damage to the electrical system and possibly a fire.**^[EWA15131]
NOTICE: After removing and

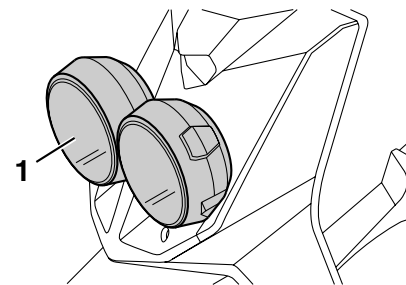
installing the main fuse, be sure to turn the main switch from "ON" to "OFF" three times in 3 seconds intervals to initialize the idle speed control system.^[ECAT1062]

Specified fuse:
15 A

3. Turn the key to "ON" and turn on the electrical circuits to check if the devices operate.
4. If the fuse immediately blows again, have a Yamaha dealer check the electrical system.

Replacing a headlight bulb

EAU34241



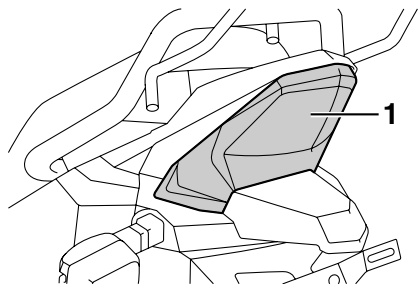
1. Headlight unit

This model is equipped with halogen bulb headlights. If a headlight bulb burns out, have a Yamaha dealer replace it and, if necessary, adjust the headlight beam.

PERIODIC MAINTENANCE AND ADJUSTMENT

Tail/brake light

EAU43040



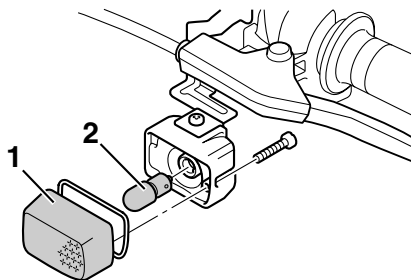
1. Tail/brake light

If the tail/brake light does not come on, have a Yamaha dealer check its electrical circuit or replace the bulb.

Replacing a turn signal light bulb

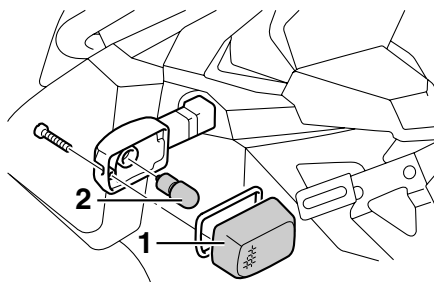
EAU24204

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



1. Turn signal light lens
2. Bulb

2. Remove the burnt-out bulb by pushing it in and turning it counterclockwise.
3. Insert a new bulb into the socket, push it in, and then turn it clockwise until it stops.
4. Install the lens by installing the screw. **NOTICE: Do not over-tighten the screw, otherwise the lens may break.**[ECA11191]



1. Turn signal light lens
2. Bulb

PERIODIC MAINTENANCE AND ADJUSTMENT

Troubleshooting

EAU25881

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

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

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

EWA15141



When checking the fuel system, do not smoke, and make sure there are no open flames or sparks in

the area, including pilot lights from water heaters or furnaces. Gasoline or gasoline vapors can ignite or explode, causing severe injury or property damage.

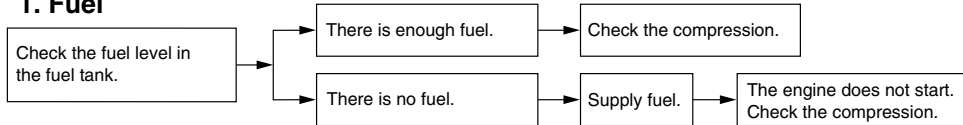
PERIODIC MAINTENANCE AND ADJUSTMENT

EAU42704

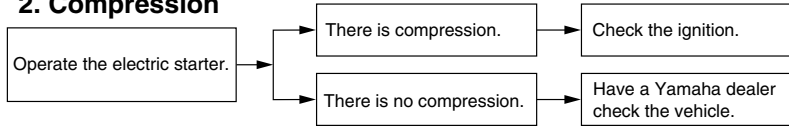
Troubleshooting charts

Starting problems or poor engine performance

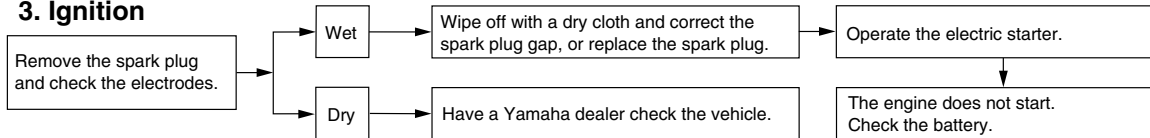
1. Fuel



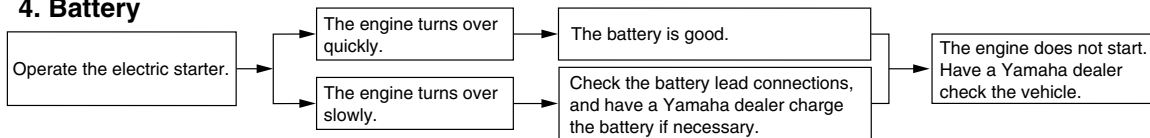
2. Compression



3. Ignition



4. Battery



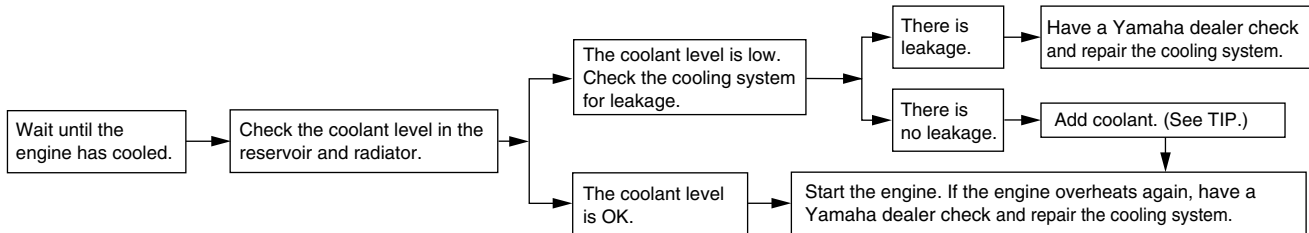
PERIODIC MAINTENANCE AND ADJUSTMENT

Engine overheating

EWAT1040

WARNING

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



TIP

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

SCOOTER CARE AND STORAGE

Matte color caution

EAU37833

ECA15192

NOTICE

Some models are equipped with matte colored finished parts. Be sure to consult a Yamaha dealer for advice on what products to use before cleaning the vehicle.

Using a brush, harsh chemical products or cleaning compounds when cleaning these parts will scratch or damage their surface. Wax also should not be applied to any matte colored finished parts.

Care

EAU26094

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

Before cleaning

1. Cover the muffler outlet with a plastic bag after the engine has cooled down.
2. Make sure that all caps and covers as well as all electrical couplers and connectors, including the spark plug cap, are tightly installed.
3. Remove extremely stubborn dirt, like oil burnt onto the crankcase, with a degreasing agent and

a brush, but never apply such products onto seals, gaskets and wheel axles. Always rinse the dirt and degreaser off with water.

Cleaning

ECA10783

NOTICE

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

SCOOTER CARE AND STORAGE

with water, diluted mild detergent with water may be used. Be sure to rinse off any detergent residue using plenty of water, as it is harmful to plastic parts.

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

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

After normal use

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

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

Since sea salt or salt sprayed on the roads during winter are extremely cor-

rosive in combination with water, carry out the following steps after each ride in the rain, near the sea or on salt-sprayed roads.

TIP

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

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

After cleaning

1. Dry the scooter with a chamois or an absorbing cloth.
2. Use a chrome polish to shine chrome, aluminum and stainless-steel parts, including the exhaust system. (Even the thermally induced discoloring of stainless-

SCOOTER CARE AND STORAGE

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.

EWA10942

WARNING

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

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

test its braking performance and cornering behavior.

ECA10800

NOTICE

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

TIP

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

EAU36563

Storage

Short-term

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

ECA10820

NOTICE

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

Long-term

Before storing your scooter for several months:

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

SCOOTER CARE AND STORAGE

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

3. Perform the following steps to protect the cylinder, piston rings, etc. from corrosion.
 - a. Remove the spark plug cap and spark plug.
 - b. Pour a teaspoonful of engine oil into the spark plug bore.
 - c. Install the spark plug cap onto the spark plug, and then place the spark plug on the cylinder head so that the electrodes are grounded. (This will limit sparking during the next step.)
 - d. Turn the engine over several times with the starter. (This will coat the cylinder wall with oil.)
 - e. Remove the spark plug cap from the spark plug, and then install the spark plug and the spark plug cap. **WARNING!** To prevent damage or injury from sparking, make sure to ground the spark plug electrodes while turning the engine over.[EWA10951]

4. Lubricate all control cables and the pivoting points of all levers and pedals as well as of the sidestand/centerstand.
5. Check and, if necessary, correct the tire air pressure, and then lift the scooter so that both of its wheels are off the ground. Alternatively, turn the wheels a little every month in order to prevent the tires from becoming degraded in one spot.
6. Cover the muffler outlet with a plastic bag to prevent moisture from entering it.
7. Remove the battery and fully charge it. Store it in a cool, dry place and charge it once a month. Do not store the battery in an excessively cold or warm place [less than 0 °C (30 °F) or more than 30 °C (90 °F)]. For more information on storing the battery, see page 6-25.

storing the scooter.

TIP

Make any necessary repairs before

SPECIFICATIONS

Dimensions

- Overall length
1855 mm (73.0 in)
- Overall width
730 mm (28.7 in)
- Overall height
1095 mm (43.1 in)
- Seat height
770 mm (30.3 in)
- Wheelbase
1280 mm (50.4 in)
- Ground clearance
115 mm (4.53 in)
- Minimum turning radius
2100 mm (82.7 in)

Weight

- Curb weight
93 kg (205 lb)

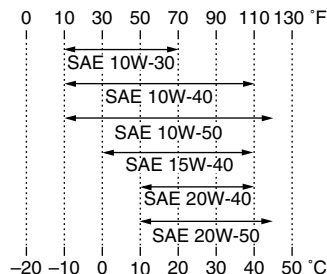
Engine

- Engine type
Liquid cooled 4-stroke, SOHC
- Cylinder arrangement
Single cylinder
- Displacement
49 cm³
- Bore x stroke
38.0 x 43.6 mm (1.50 x 1.72 in)
- Compression ratio
12.00 : 1
- Starting system
Electric starter
- Lubrication system
Wet sump

EAU50975

Engine oil

- Recommended brand
YAMALUBE
- Type
SAE 10W-30, 10W-40, 10W-50, 15W-40,
20W-40 or 20W-50



- Recommended engine oil grade
API service SG type or higher, JASO
standard MA
- Periodic oil change
0.78 L (0.82 US qt, 0.69 Imp.qt)

Final transmission oil

- Type
SAE 10W-30 type SE motor oil
- Quantity
0.10 L (0.11 US qt, 0.09 Imp.qt)

Cooling system

- Coolant reservoir capacity (up to the maximum level mark)
0.26 L (0.27 US qt, 0.23 Imp.qt)
- Radiator capacity (including all routes)
0.26 L (0.27 US qt, 0.23 Imp.qt)

Air filter

- Air filter element
Wet element

Fuel

- Recommended fuel
Unleaded gasoline only
- Fuel tank capacity
4.5 L (1.19 US gal, 0.99 Imp.gal)

Throttle body

- ID mark
3B31 01
- Manufacturer
MIKUNI

Spark plug(s)

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

Clutch

- Clutch type
Dry, centrifugal automatic

Transmission

- Primary reduction ratio
1.000
- Secondary reduction ratio
13.782 (50/13 x 43/12)
- Final drive
Gear
- Transmission type
V-belt automatic

Chassis

- Frame type
Backbone

Caster angle
26.00 degree

Trail
84 mm (3.3 in)

Front tire

Type
Tubeless
Size
120/90-10 57J
Manufacturer/model
CHENG SHIN / C-6022

Rear tire

Type
Tubeless
Size
120/90-10 57J
Manufacturer/model
CHENG SHIN / C-6022

Loading

Maximum load
85 kg (187 lb)

Tire air pressure (measured on cold tires)

Front
175 kPa (1.75 kgf/cm², 25 psi, 1.75 bar)
Rear
175 kPa (1.75 kgf/cm², 25 psi, 1.75 bar)

Front wheel

Wheel type
Cast wheel
Rim size
J10 x MT 3.00

Rear wheel

Wheel type
Cast wheel
Rim size
J10 x MT 3.00

Front brake

Type
Single disc brake
Operation
Right hand operation
Specified brake fluid
DOT 4

Rear brake

Type
Drum brake
Operation
Left hand operation

Front suspension

Type
Telescopic fork
Spring/shock absorber type
Coil spring/oil damper
Wheel travel
58.0 mm (2.28 in)

Rear suspension

Type
Unit swing
Spring/shock absorber type
Coil spring/oil damper
Wheel travel
56.0 mm (2.20 in)

Electrical system

Ignition system
TCI

Charging system
AC magneto

Battery

Model
GTX5L-BS
Voltage, capacity
12 V, 4.0 Ah

Headlight

Bulb type
Halogen bulb

Bulb voltage, wattage x quantity

Headlight
12 V, 35.0 W/35.0 W x 2
Tail/brake light
12 V, 5.0 W/21.0 W x 1
Front turn signal light
12 V, 10.0 W x 2
Rear turn signal light
12 V, 10.0 W x 2
License plate light
12 V, 5.0 W x 1
Meter lighting
12 V, 1.7 W x 1
High beam indicator light
12 V, 1.7 W x 1
Turn signal indicator light
14 V, 3.0 W x 1
Coolant temperature warning light
12 V, 1.7 W x 1
Engine trouble warning light
12 V, 1.7 W x 1

Fuses

Main fuse
15.0 A

SPECIFICATIONS

EAU26353

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.

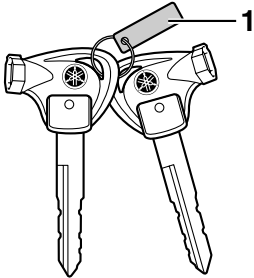
KEY IDENTIFICATION NUMBER:

VEHICLE IDENTIFICATION NUMBER:

MODEL LABEL INFORMATION:

EAU26381

Key identification number

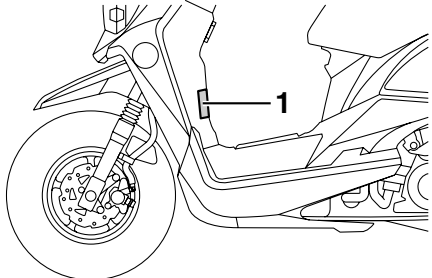


1. Key identification number

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.

EAU26410

Vehicle identification number



1. Vehicle identification number

The vehicle identification number is stamped into the frame.

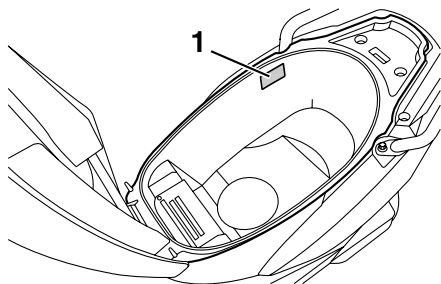
TIP _____

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

CONSUMER INFORMATION

Model label

EAUT1440

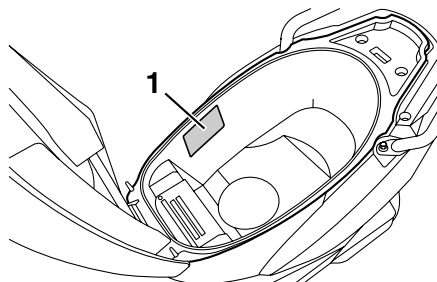


1. Model label

The model label is affixed to the inside of the storage compartment. (See page 3-10.) Record the information on this label in the space provided. This information will be needed when ordering spare parts from a Yamaha dealer.

Vehicle Emission Control Information label

EAU48270



1. Vehicle Emission Control Information label

The Vehicle Emission Control Information label is affixed at the location in the illustration. This label shows specifications related to exhaust emissions as required by federal law, state law and Environment Canada.

Reporting safety defects

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying Yamaha Motor Corporation, U.S.A. If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or Yamaha Motor Corporation, U.S.A.

To contact NHTSA, you may call the Vehicle Safety Hotline toll-free at 1-888-327-4236 (TTY: 1-800-424-9153); go to <http://www.safercar.gov>; or write to: Administrator, NHTSA, 400 Seventh Street, SW., Washington, DC 20590. You can also obtain other information about motor vehicle safety from <http://www.safercar.gov>.

CONSUMER INFORMATION

EAU26580

Scooter noise regulation

TAMPERING WITH NOISE CONTROL SYSTEM PROHIBITED:

Federal law prohibits the following acts or the causing thereof: (1) The removal or rendering inoperative by any person other than for purposes of maintenance, repair, or replacement of any device or element of design incorporated into any new vehicle for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use or (2) the use of the vehicle after such device or element of design has been removed or rendered inoperative by any person.

”AMONG THOSE ACTS PRESUMED TO CONSTITUTE TAMPERING ARE THE ACTS LISTED BELOW.”

These acts include tampering with the following systems; i.e., modification, removal, etc.

Exhaust system	Muffler Exhaust pipe Silencer
Intake system	Air cleaner case Air cleaner element Intake duct

Maintenance record

Copies of work orders and/or receipts for parts purchased and installed on your motorcycle will be required to document that maintenance has been completed in accordance with the emissions warranty. The chart below is printed only as a reminder that maintenance work is required. It is not acceptable proof of maintenance work.

Maintenance interval	Date of service	Mileage	Servicing dealer name and address	Remarks
600 mi (1000 km) or 1 month				
2000 mi (4000 km) or 6 months				
4000 mi (7000 km) or 12 months				
6000 mi (10000 km) or 18 months				
8000 mi (13000 km) or 24 months				
10000 mi (16000 km) or 30 months				
12000 mi (19000 km) or 36 months				
14000 mi (22000 km) or 42 months				

CONSUMER INFORMATION

Maintenance interval	Date of service	Mileage	Servicing dealer name and address	Remarks
16000 mi (25000 km) or 48 months				
18000 mi (28000 km) or 54 months				
20000 mi (31000 km) or 60 months				

YAMAHA MOTOR CORPORATION, U.S.A. RIVA LIMITED WARRANTY

Yamaha Motor Corporation, U.S.A. hereby warrants that each new Yamaha Riva purchased from an authorized Yamaha Riva dealer in the continental United States will be free from defects in material and workmanship for the period of time stated herein, subject to certain stated limitations.

THE PERIOD OF WARRANTY for Yamaha Riva shall be one (1) year from the date of purchase, with no mileage limitation.

MODELS EXCLUDED FROM WARRANTY include those used for non-Yamaha-authorized renting, leasing, or other commercial purposes.

DURING THE PERIOD OF WARRANTY any authorized Yamaha motorcycle dealer will, free of charge, repair or replace any part adjudged defective by Yamaha due to faulty workmanship or material from the factory. Parts used in warranty repairs will be warranted for the balance of the product's warranty period. All parts replaced under warranty become property of Yamaha Motor Corp. U.S.A.

GENERAL EXCLUSIONS from this warranty shall include any failures caused by:

- Competition or racing use.
- Installation of parts or accessories that are not qualitatively equivalent to genuine Yamaha parts.
- Abnormal strain, neglect, or abuse.
- Lack of proper maintenance.
- Accident or collision damage.

SPECIFIC EXCLUSIONS from this warranty shall include parts replaced due to normal wear or routine maintenance.

THE CUSTOMER'S RESPONSIBILITY under this warranty shall be to:

- Operate and maintain the Riva as specified in the appropriate Owner's Manual, and

- Give notice to an authorized Yamaha Riva dealer of any and all apparent defects within ten (10) days after discovery, and make the machine available at that time for inspection and repairs at such dealer's place of business.

WARRANTY TRANSFER: To transfer the warranty from the original purchaser to any subsequent purchaser, it is imperative that the machine be inspected and registered for warranty by an authorized Yamaha Riva dealer. In order for this warranty to remain in effect, this inspection and registration must take place within (10) days after transfer. An inspection and registration fee will be charged for this service.

EMISSIONS CONTROL SYSTEM WARRANTY Yamaha Motor Corporation, U.S.A. also warrants to the ultimate purchaser and each subsequent purchaser of each 2006 and later model Yamaha Riva covered by this warranty, that the vehicle is designed, built, and equipped so as to conform at the time of sale with all U.S. emissions standards applicable at the time of manufacture and that it is free from defects in materials and workmanship which would cause it not to meet these standards within the periods listed immediately below. Failure other than those resulting from defects in material or workmanship which arise solely as a result of owner abuse and/or lack of proper maintenance are not covered by this warranty.

ENGINE DISPLACEMENT	PERIOD
under 50cc	6,000 km (3,750 miles) or five years, whichever occurs first
50cc to 169cc	12,000 km (7,465 miles) or five years, whichever occurs first
170cc to 279cc	18,000 km (11,185 miles) or five years, whichever occurs first
280cc or over	30,000 km (18,641 miles) or five years, whichever occurs first

YAMAHA MOTOR CORPORATION, U.S.A. MAKES NO OTHER WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED. ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WHICH EXCEED THE OBLIGATIONS AND TIME LIMITS STATED IN THIS WARRANTY ARE HEREBY DISCLAIMED BY YAMAHA MOTOR CORPORATION, U.S.A. AND EXCLUDED FROM THIS WARRANTY.

SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. ALSO EXCLUDED FROM THIS WARRANTY ARE ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES INCLUDING LOSS OF USE. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE EXCLUSION MAY NOT APPLY TO YOU.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

YAMAHA MOTOR CORPORATION, U.S.A.
P. O. Box 6555
Cypress, California 90630

CONSUMER INFORMATION

- Q. What costs are my responsibility during the warranty period?
- A. The customer's responsibility includes all costs of normal maintenance services, non-warranty repairs, accident and collision damages, and oil, oil filters, air filters, spark plugs, and brake shoes.
- Q. What are some examples of "abnormal" strain, neglect, or abuse?
- A. These terms are general and overlap each other in areas. Specific examples include: Running the machine out of oil, sustained high-rpm, full-throttle, operating the machine with a broken or damaged part which causes another part to fail, damage or failure due to improper or careless transportation and or tie down. If you have any specific questions on operation or maintenance, please contact your dealer for advice.
- Q. Does the warranty cover incidental costs such as towing or transportation due to a failure?
- A. No. The warranty is limited to repair of the machine itself.
- Q. May I perform any or all of the recommended maintenance shown in the Owner's Manual instead of having the dealer do them?
- A. Yes, if you are a qualified mechanic and follow the procedures specified in the Owner's and Service Manual. We do recommend, however, that items requiring special tools or equipment be done by a Yamaha Riva dealer.
- Q. Will the warranty be void or cancelled if I do not operate or maintain my new Riva exactly as specified in the Owner's Manual?
- A. No. The warranty on a new Riva cannot be "voided" or "cancelled." **However, if a particular failure is caused by operation or maintenance other than as shown in the Owner's Manual, that failure may not be covered under warranty.**
- Q. What responsibility does my dealer have under this warranty?
- A. Each Yamaha Riva dealer is expected to:
1. Completely set up every new machine before sale.
 2. Explain the operation, maintenance, and warranty requirements to your satisfaction at the time of sale, and upon your request at any later date.
 3. Each Yamaha Riva dealer is held responsible for his setup, service and warranty repair work.
- Q. Is the warranty transferable to second owners?
- A. Yes. The remainder of the existing warranty can be transferred upon request. The unit has to be inspected and re-registered by an authorized Yamaha Riva dealer for the policy to remain effective.

If your machine requires warranty service, you must take it to any authorized Yamaha Riva dealer within the continental United States. Be sure to bring your warranty registration card or other valid proof of the original date of purchase. If a question or problem arises regarding warranty, first contact the owner of the dealership. Since all warranty matters are handled at the dealer level, this person is in the best position to help you. If you are still not satisfied and require additional assistance, please write:

YAMAHA MOTOR CORPORATION U.S.A.
CUSTOMER RELATIONS DEPARTMENT
P.O. Box 6555
Cypress, California 90630

When contacting Yamaha Motor Corporation, U.S.A. don't forget to include any important information such as names, addresses, model, V.I.N (frame number), dates, and receipts.

CHANGE OF ADDRESS

The federal government requires each manufacturer of a motor vehicle to maintain a complete, up-to-date list of all first purchasers against the possibility of a safety-related defect and recall. This list is compiled from the purchase registrations sent to Yamaha Motor Corporation, U.S.A. by the selling dealer at the time of your purchase.

If you should move after you have purchased your new motorcycle, please advise us of your new address by sending a postcard listing your Riva model name, V.I.N (frame number), dealer number (or dealer's name) as it is shown on your warranty card, your name and new mailing address. Mail to:

YAMAHA MOTOR CORPORATION, U.S.A.
P.O. Box 6555
Cypress, California 90630
Attention: Warranty Department

This will ensure that Yamaha Motor Corporation, U.S.A. has an up-to-date registration record in accordance with federal law.

YAMAHA EXTENDED SERVICE (Y.E.S.)

Keep your Yamaha protected even after your warranty expires with genuine Yamaha Extended Service (Y.E.S.).

- Y.E.S. is designed and administered by Yamaha Motor Corporation to provide maximum owner satisfaction. You get uninterrupted factory-backed coverage for extra peace of mind.
- Y.E.S. is flexible. You choose the plan that's right for you: 12 months, 24 months, 36 months or, on certain models, even 48 months beyond your warranty period.
- Y.E.S. is designed and administered by the same Yamaha people who handle your warranty – and it shows in the comprehensive coverage benefits. There are no mileage limitations. Coverage isn't limited to "moving parts" or the "drive train" like many other plans. And Y.E.S. covers manufacturing defects just like the warranty. See the sample contract at your Yamaha dealer to see how comforting uninterrupted factory-backed protection can be.
- You don't have to pay anything for covered repairs. There's no deductible to pay, and repairs aren't "pro-rated." You don't have any "out-of-pocket" expenses for covered repairs.

- In addition, Travel and Recreation Interruption Protection (TRIP) is included at no extra cost. TRIP gives you up to \$250 reimbursement per occurrence for any reasonable expenses you incur because your Yamaha needs covered service: replacement vehicle rental, emergency towing, phone calls, even food and lodging when you are away from home. This superb coverage goes into effect when you purchase Y.E.S., so it applies to any warranty repairs as well as covered repairs during your entire Y.E.S. plan period.
- Y.E.S. coverage is honored at any authorized Yamaha dealer nationwide.
- Y.E.S. coverage is transferable to a new owner if you sell or trade-in. That can make your Yamaha much more valuable!

This excellent Y.E.S. plan coverage is only available to Yamaha owners like you, and only while your Yamaha is still within the Yamaha Limited Warranty period. So visit your authorized Yamaha dealer to get all the facts. He can show you how easy it is to protect your investment with Yamaha Extended Service.

CONSUMER INFORMATION

We urge you to act now. You'll get the excellent benefits of TRIP coverage right away, and you'll rest easy knowing you'll have strong factory-backed protection even after your Yamaha Limited Warranty expires.

A special note:

If visiting your dealer isn't convenient, contact Yamaha with your Primary ID number (your frame number). We'll be happy to help you get the Y.E.S. coverage you need.

Yamaha Service Marketing

P.O. Box 6555

Cypress, CA 90630

1-(866)-YES-EXTD (1-866-937-3983)



YAMAHA



EXTENDED



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