

A Read this manual carefully before operating this vehicle.

ALL NELL





OWNER'S MANUAL

EAU46091

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

EAU46091

在使用这电单车以前,请充分使用这小手册。这手册须付与电单车一起。

EAU46091

A Baca buku panduan dengan teliti sebelum mengendalikan motosikal ini. Buku panduan diberi bersama dengan pembelian motosikal.

Introduction

EAU10103

Welcome to the Yamaha world of motorcycling!

As the owner of the GPD155, you are benefiting from Yamaha's vast experience and newest technology regarding the design and manufacture of high-quality products, which have earned Yamaha a reputation for dependability.

Please take the time to read this manual thoroughly, so as to enjoy all advantages of your GPD155. The Owner's Manual does not only instruct you in how to operate, inspect and maintain your motorcycle, but also in how to safeguard yourself and others from trouble and injury.

In addition, the many tips given in this manual will help keep your motorcycle in the best possible condition. If you have any further questions, do not hesitate to contact your Yamaha dealer.

The Yamaha team wishes you many safe and pleasant rides. So, remember to put safety first!

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

EWA10032

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

EAU10134

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.
NOTICE	A NOTICE indicates special precautions that must be taken to avoid damage to the vehicle or other property.
TIP	A TIP provides key information to make procedures easier or clearer.

*Product and specifications are subject to change without notice.

EAUN0430

GPD155 OWNER'S MANUAL ©2020 by Yamaha Motor Co., Ltd. 1st edition, October 2020 All rights reserved. Any reprinting or unauthorized use without the written permission of Yamaha Motor Co., Ltd. is expressly prohibited. Printed in Malaysia

Table of contents

Location of important labels 1-1
Safety information
Description3-1Left view3-1Right view3-2Controls and instruments3-3
Stop and Start System
Instrument and control functions 5-1
Instrument and control functions 5-1 Main switch/steering lock
Instrument and control functions 5-1 Main switch/steering lock
Instrument and control functions 5-1 Main switch/steering lock
Instrument and control functions 5-1 Main switch/steering lock
Instrument and control functions 5-1 Main switch/steering lock
Instrument and control functions 5-1 Main switch/steering lock
Instrument and control functions 5-1 Main switch/steering lock
Instrument and control functions 5-1 Main switch/steering lock
Instrument and control functions 5-1 Main switch/steering lock

.5-14
.5-14
.5-16
.5-17
.5-17

Operation and important riding

points	7-1
Engine break-in	7-1
Starting the engine	7-2
Starting off	7-3
Acceleration and deceleration	7-3
Braking	7-3
Tips for reducing fuel	
consumption	7-4
Parking	7-4

Periodic maintenance and

8-1
8-1
8-2
8-3
8-8
8-10

Engine oil and oil strainer	8-11
Final transmission oil	8-13
Coolant	8-15
Air filter and V-belt case air	
filter elements	8-17
Checking the throttle grip	
free play	8-19
Valve clearance	8-20
Tires	8-20
Cast wheels	8-22
Checking the front and rear	
brake lever free play	8-22
Checking the front and rear	
brake pads	8-23
Checking the brake fluid level	8-23
Changing the brake fluid	8-24
Checking the V-belt	8-25
Checking and lubricating the	
cables	8-25
Checking and lubricating the	
throttle grip and cable	8-25
Lubricating the front and rear	
brake levers	8-26
Checking and lubricating the	
centerstand and sidestand	8-26
Checking the front fork	8-27
Checking the steering	8-28
Checking the wheel bearings	8-28
Battery	8-28
Replacing the fuses	8-30
Vehicle lights	8-31

Replacing a front turn signal	
light bulb	8-31
Replacing a rear turn signal	
light bulb	8-32
Troubleshooting	8-33
Troubleshooting chart	8-35

Motorcycle care and storage	9-1
Matte color caution	9-1
Care	9-1
Storage	9-3 10-1
Consumer information	11-1
Identification numbers	11-1
Vehicle data recording	11-2

Index12-1

Read and understand all of the labels on your vehicle. They contain important information for safe and proper operation of your vehicle. Never remove any labels from your vehicle.

EAUN2190





2

	ঀৄ৾৽৽	
100kPa=1bar	kPa, psi	kPa, psi
İ	150,22	250, 36
İ	150,22	250, 36

Be a Responsible Owner

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

Motorcycles 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 motorcycle. He or she should:

- Obtain thorough instructions from a competent source on all aspects of motorcycle operation.
- Observe the warnings and maintenance requirements in this Owner's Manual.
- Obtain gualified 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 motorcycle without proper training or instruction. Take a training course. Beginners

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

Safe Riding

FAU1028C

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 6-1 for a list of pre-operation checks.

- This motorcycle is designed to carry the operator and a passenaer.
- The failure of motorists to detect and recognize motorcycles in traffic is the predominating cause of automobile/motorcycle accidents. Manv accidents have been caused by an automobile driver who did not see the motorcycle. Making yourself conspicuous appears to be very effective in reducing the chance of this type of accident.

Therefore:

- Wear a brightly colored jacket.
- Use extra caution when you are approaching and passing through intersections, since intersections are the most likely places for motorcycle accidents to occur
- Bide where other motorists can see you. Avoid riding in another motorist's blind spot.
- Never maintain a motorcycle without proper knowledge. Contact an authorized motorcycle dealer to inform you on basic motorcycle 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 motorcycle license.
 - Make sure that you are gualified and that you only lend your motorcycle to other qualified operators.

▲ Safety information

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

both feet on the operator footrests during operation to maintain control of the motorcycle.

- The passenger should always hold onto the operator, the seat strap or grab bar, if equipped, with both hands and keep both feet on the passenger footrests. Never carry a passenger unless he or she can firmly place both feet on the passenger footrests.
- Never ride under the influence of alcohol or other drugs.
- This motorcycle is designed for on-road use only. It is not suitable for off-road use.

Protective Apparel

The majority of fatalities from motorcycle 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, heavy boots, 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, footrests, or wheels and cause injury or an accident.
- Always wear protective clothing that covers your legs, ankles, and feet. The engine or exhaust system become very hot during or after operation and can cause burns.
- A passenger should also observe the above precautions.

Avoid Carbon Monoxide Poisoning

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

Carbon Monoxide is a colorless, odorless, tasteless gas which may be present even if you do not see or smell any engine exhaust. Deadly levels of carbon monoxide can collect rapidly and you can quickly be overcome and

<u>Safety information</u>

unable to save yourself. Also, deadly levels of carbon monoxide can linger for hours or days in enclosed or poorly ventilated areas. If you experience any symptoms of carbon monoxide poisoning, leave the area immediately, get fresh air, and SEEK MEDICAL TREAT-MENT.

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

Loading

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

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

Maximum load:

156 kg (344 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 motorcycle 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 motorcycle to minimize imbalance or instability.

2 - 3

- Shifting weights can create a sudden imbalance. Make sure that accessories and cargo are securely attached to the motorcycle 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. These items, including such cargo as sleeping bags, duffel bags, or tents, can create unstable handling or a slow steering response.
- This vehicle is not designed to pull a trailer or to be attached to a sidecar.

Genuine Yamaha Accessories

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

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

Aftermarket Parts, Accessories, and Modiÿ cations

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 motorcycle. 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 motorcycle due to aerodynamic effects. Wind may attempt to lift the motorcycle, or the motorcycle 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 motorcycle'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 motorcycle were designed to match the performance capabilities and to

▲ Safety information

provide the best combination of handling, braking, and comfort. Other tires, rims, sizes, and combinations may not be appropriate. See page 8-20 for tire specifications and for information on servicing and replacing your tires.

Transporting the Motorcycle

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

- Remove all loose items from the motorcycle.
- Point the front wheel straight ahead at the trailer or the back of the truck and pinch it to reduce movement
- Secure the motorcycle with tiedowns or suitable straps that are attached to solid parts of the motorcycle, 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 tiedowns, if possible, so that the motorcycle will not bounce excessively during transport.

Further safe-riding points

- Be sure to signal clearly when making turns.
- Braking can be extremely difficult on a wet road. Avoid hard braking, because the motorcycle 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 motorcycle upright, otherwise it could slide out from under you.

- The brake pads or linings could get wet when you wash the motorcycle. After washing the motorcycle, check the brakes before riding.
- Always wear a helmet, gloves, trousers (tapered around the cuff and ankle so they do not flap), and a brightly colored jacket.
- Do not carry too much luggage on the motorcycle. An overloaded motorcycle is unstable. Use a strong cord to secure any luggage to the carrier (if equipped). A loose load will affect the stability of the motorcycle and could divert your attention from the road. (See page 2-3.)

Correct usage

FAUN0532

Helmets

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

Always select an approved motorcycle helmet

Pay attention to the following when choosing a motorcycle helmet.

- The helmet must meet the safety standard "TCVN"
- The helmet size must match the size of the rider's head.
- Never subject a helmet to heavy shocks.

Wearing the helmet correctly

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



Wrong usage



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



ZAUU0007

Types of helmets and their usage

 Half-type: use only for riding at low speeds





Description

Left view



- 1. Storage compartment A (page 5-14)
- 2. Power outlet (page 5-16)
- 3. Fuel tank cap (page 5-11)
- 4. Tool kit (page 8-1)
- 5. Rear storage compartment (page 5-14)
- 6. Air filter element (page 8-17)
- 7. Final transmission oil filler cap (page 8-13)
- 8. Final transmission oil drain bolt (page 8-13)

9. V-belt case air filter element (page 8-17)

FAU10411

Description

EAU10421

Right view



- 1. Tail/brake light
- 2. Battery (page 8-28)
- 3. Storage compartment B (page 5-14)
- 4. Fuse box (page 8-30)
- 5. Headlight (page 8-31)
- 6. Coolant reservoir (page 8-15)
- 7. Spark plug (page 8-10)
- 8. Engine oil drain bolt A (page 8-11)

9. Engine oil drain bolt B (page 8-11)
10.Engine oil filler cap (page 8-11)

Description

EAU10431

Controls and instruments



- 1. Rear brake lever (page 5-11)
- 2. Left handlebar switches (page 5-9)
- 3. Rear brake fluid reservoir (page 8-23)
- 4. Multi-function meter unit (page 5-3)
- 5. Front brake fluid reservoir (page 8-23)
- 6. Right handlebar switches (page 5-9)
- 7. Front brake lever (page 5-10)
- 8. Throttle grip (page 8-19)

9. Main switch (page 5-1)



1. Stop and Start System indicator light "(A)"

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

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

ECA23961

NOTICE

When parking the vehicle or leaving the vehicle unattended, be sure to turn the main switch off. If the Stop and Start System is left turned on, the battery could become discharged and it may not be possible to restart the engine due to insufficient battery voltage.

TIP_

FAL176823

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

Stop and Start System operation

Activating the Stop and Start System

1. Turn the main switch on.



2. Set the Stop and Start System switch to "(A)".



- 3. When the vehicle confirms that the following conditions are met, the Stop and Start System activates and the Stop and Start System indicator light comes on.
 - The Stop and Start System switch is set to "A".
 - After the engine was warmed up, the engine was left idling for a certain period of time.
 - The vehicle has traveled at a speed of 10 km/h or higher.



- 1. On
- 4. To turn off the Stop and Start System, set the Stop and Start System switch to "@".



TIP_

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

EAU76831

Stop the engine

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

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

On Flashing

EAU76703

Restart the engine

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



- 1. Flashing
- 2. Off

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



TIP_

FWA18730

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

EAU76711

Precautions when using the Stop and Start System

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

EWA18741

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



EWA18751

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



🚹 WARNING

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



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



Main switch/steering lock



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

TIP _____

The main switch/steering lock is equipped with a keyhole shutter. (See page 5-2 for keyhole shutter opening and closing procedures.)

ON

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

TIP

- The meter lighting comes on automatically when the key is turned to "ON".
- The fuel pump can be heard when the key is turned to "ON".

OFF

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

EWA15351

FAU76120

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.

LOCK

FAU80650

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, release it, and then turn it to "LOCK".
- 3. Remove the key.

TIP _____

EAU76130

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

To unlock the steering



From "LOCK" position push the key in and turn to "OFF" position.





FAU61101

- 1. " PUSH SHUT " switch
- 2. Keyhole shutter key

To open the keyhole shutter

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

To close the keyhole shutter

Insert the keyhole shutter key into the keyhole shutter receptacle as shown, and then turn the key to the left to close the keyhole shutter.

Indicator lights and warning lights



- 1. Left turn signal indicator light "
- 2. High beam indicator light "≣O"
- 3. Engine trouble warning light " + → "
- 4. Stop and Start System indicator light "(A)"
- 5. Right turn signal indicator light "⇔"

EAU11032

Turn signal indicator lights "⇔" and "⇔"

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

EAU11081

High beam indicator light "≣O"

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

5

Engine trouble warning light " 🖧 "

This warning light comes on if a problem is detected in the engine or other vehicle control system. If this occurs, have a Yamaha dealer check the onboard diagnostic system.

TIP _____

When the vehicle is turned on, this light should come on for a few seconds and then go off. Otherwise, have a Yamaha dealer check vehicle.

EAU76382

Stop and Start System indicator light "A"

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

TIP_____

Even if the Stop and Start Switch is set to "(A)", this indicator light may not come on. (See page 4-1.)

Multi-function meter unit



- 1. Fuel meter
- 2. VVA (variable valve actuation) indicator
- Clock
- 4. Speedometer
- 5. Coolant temperature meter
- 6. Multi-function display

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

The "MENU" switch is located on the left side of handlebar. This switch allows you to control or change the settings of multi-function meter unit.



1. "MENU" switch

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

- a speedometer
- a VVA indicator
- a clock
- a fuel meter
- a coolant temperature meter
- a multi-function display

TIP_____

Be sure to turn the main switch on before using the "MENU" switch.

EAU86820

Switching the display units

The display units can be switched between kilometers and miles.

To switch the display units

1. Turn the vehicle off.

- 2. While pushing the "MENU" switch, turn the vehicle on.
- 3. Continue to push the "MENU" switch until the display unit setting screen comes on (approximately 5 seconds).
- 4. Push the "MENU" switch once to switch the display units.
- 5. Push the "MENU" switch for 1 second to confirm the setting.

Speedometer

The speedometer shows the vehicle's traveling speed.

Fuel meter



1. Fuel meter

The fuel meter indicates the amount of fuel in the fuel tank. The display segments of the fuel meter disappear from "F" (full) towards "E" (empty) as the fuel level decreases. When approximately 1.7 L (0.45 US gal, 0.37 Imp.gal) of fuel remains, the last segment starts flashing. Refuel as soon as possible.

TIP _____

If a problem is detected in the electrical circuit, the fuel level segments will flash repeatedly. If this occurs, have a Yamaha dealer check the vehicle.

FAU86851

To set the clock

- 1. Push the "MENU" switch until the hour digits start flashing.
- 2. Use the "MENU" switch to set the hours.
- 3. Push the "MENU" switch until the minute digits start flashing.
- 4. Use the "MENU" switch to set the minutes.
- 5. Push the "MENU" switch until the minute digits stop flashing. The setting is confirmed.

EAU86860

Coolant temperature meter



This meter shows the temperature of the coolant, and thereby the condition of the engine. The segments come on from "C" (cold) to "H" (hot) as the engine temperature increases. If the hot

Clock





The clock uses a 12-hour time system.

segment flashes, stop the engine as soon as possible, and let the engine cool. (See page 8-36.)

TIP_____

VVA indicator

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

EAU86870



. VVA (variable valve actuation) indicator

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

To turn the VVA indicator on or off

- 1. Turn the vehicle off.
- While pushing the "MENU" switch, turn the vehicle on.
- Continue pushing the "MENU" switch. The display unit setting screen will come on (after 5 seconds), and after that (an additional 10 seconds) all segments othe than the VVA indicator will star flashing. Now release the "MENU switch.
- 4. Push the "MENU" switch once t change the on or off setting.
- 5. Push the "MENU" switch for second to confirm the setting.

TIP_____

Turning the VVA indicator off does no turn off the variable valve actuatio system.

Multi-function display



FAU8688

5

1. Multi-function display

The multi-function display is equipped with the following:

- an odometer (ODO)
- two tripmeters (TRIP 1 and TRIP 2)
- a fuel reserve tripmeter (TRIP F)
- an oil change tripmeter (OIL TRIP)
- an oil change indicator
- a V-belt replacement tripmeter (V-BELT TRIP)
- a V-belt replacement indicator
- an instantaneous fuel consumption display (F/ECO)
- an average fuel consumption display (AVE F/ECO)
- a battery voltage display (BATT) Push the "MENU" switch to change the display in the following order:

ODO and F/ECO \rightarrow TRIP 1 and AVE $F/ECO \rightarrow TRIP 2$ and AVE $F/ECO \rightarrow$ TRIP $F \rightarrow BATT \rightarrow OII$ TRIP $\rightarrow V$ -BFI T TRIP \rightarrow ODO and F/ECO

TIP

- The fuel reserve tripmeter appears only when you are low on fuel.
- The oil change tripmeter and Vbelt replacement tripmeter are not displayed while the vehicle is movina.
- There is an average fuel consumption display for each tripmeter (TRIP 1 and TRIP 2). When a tripmeter is reset, the average fuel consumption display for that tripmeter will also be reset.

Odometer



1. Odometer

The odometer shows the total distance traveled by the vehicle.

TIP

The odometer will lock at 999999 and cannot be reset.

FAL 186890 **Tripmeters**







1. Tripmeter

The tripmeters show the distance traveled since they were last reset.

To reset a tripmeter, set the display to the tripmeter you want to reset, and then push the "MENU" switch until it is reset.

TIP_____

The tripmeters will reset and continue counting after 9999.9 is reached.

Fuel reserve tripmeter



1. Fuel reserve tripmeter

If the last segment of the fuel meter starts flashing, the display automatically changes to the fuel reserve tripmeter "TRIP F" and starts counting the distance traveled from that point.

To reset the fuel reserve tripmeter, push the "MENU" switch until it is reset.

TIP _____

If you do not reset the fuel reserve tripmeter manually, it will reset automatically and disappear from the display after refueling and traveling 5 km (3 mi).

Oil change tripmeter

FAU86910



Oil change indicator "OIL"
Oil change tripmeter

This tripmeter shows the distance traveled since the last engine oil change. The oil change indicator "OIL" will flash at the initial 1000 km (600 mi), the next 3000 km (1800 mi), and then every 4000 km (2500 mi) thereafter.

To reset the oil change tripmeter and oil change indicator, select the oil change tripmeter, and then push the "MENU" switch until "OIL" and the tripmeter start flashing. While "OIL" and the tripmeter are flashing, push the "MENU" switch until the tripmeter is reset.

TIP

FAL 186920

When the engine oil has been changed, the oil change tripmeter and the oil change indicator must be reset. Otherwise, the oil change indicator will not come on at the correct time.

V-belt replacement tripmeter EAU86930



V-belt replacement indicator "V-BELT"
V-belt replacement tripmeter

This tripmeter shows the distance traveled since the V-belt was last replaced. The V-belt replacement indicator "V-BELT" will flash every 25000 km (15500 mi) to indicate that the V-belt should be replaced.

To reset both the tripmeter and the indicator, select the V-belt replacement tripmeter, and then push the "MENU" switch until "V-BELT" and the tripme-

ter start flashing. While "V-BELT" and the tripmeter are flashing, push the "MENU" switch until the tripmeter is reset.

TIP _____

When the V-belt is replaced, the tripmeter and indicator must be reset. Otherwise, the V-belt replacement indicator will not come on at the correct time.

Instantaneous fuel consumption display



1. Instantaneous fuel consumption display

This display shows fuel consumption under current riding conditions. It can be set to either "km/L" or "L/100 km", or "MPG" when using miles.

- "km/L": the distance that can be traveled on 1.0 L of fuel.
- "L/100 km": the amount of fuel necessary to travel 100 km.
- "MPG": the distance that can be traveled on 1.0 Imp.gal of fuel.

TIP _____

When traveling under 10 km/h (6 mi/h), "_ _._" is displayed.

Average fuel consumption display



1. Average fuel consumption display

This display shows the average fuel consumption since it was last reset. The average fuel consumption display can be set to either "km/L" or "L/100 km", or "MPG" when using miles.

- "km/L": the average distance that can be traveled on 1.0 L of fuel.
- "L/100 km": the average amount of fuel necessary to travel 100 km.
- "MPG": the average distance that can be traveled on 1.0 Imp.gal of fuel.

TIP_____

- To reset the display, push the "MENU" switch until it resets.
- After resetting, "_ _._" is shown until the vehicle has traveled some distance.

EAU86960

Battery voltage display



1. Battery voltage meter

5

This display shows the current charge state of the battery.

- Over 12.8 V = Full charge.
- Under 12.7 V = Charging is required.

TIP

If the battery voltage is less than 9.0 V, "___" is displayed.



- 1. "MENU" switch
- 2. Dimmer switch "≣O/≣O"
- 3. Turn signal switch "<□/□>"
- 4. Horn switch "



Set this switch to "≣O" for the high beam and to "SO" for the low beam.

TIP

When the switch is set to low beam. both headlights for low beam come on. When the switch is set to high beam, both headlights for high beam come on.

FAU12461

5

Turn signal switch " $\langle \neg / \neg \rangle$ "

To signal a right-hand turn, push this switch to "⇒". To signal a left-hand

FAU12501

EAU12722

FAU79500

turn, push this switch to " \triangleleft ". 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 " - "

Press this switch to sound the horn.

5

Start switch "(s)"

With the sidestand up, push this switch while applying the front or rear brake to crank the engine with the starter. See page 7-2 for starting instructions prior to starting the engine.

Hazard switch "A"

With the main switch in the "ON" position, use this switch to turn on the hazard lights (simultaneous flashing of all turn signal lights).

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

NOTICE

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

Menu switch "MENU"

This switch is used to perform selections in the setting mode display of the multi-function meter unit.

See Multi-function meter unit on page 6-2 for detailed information.

EAU76391

ECA10062

EAU59011

Stop and Start System switch "(A)/(A)"

To turn on the Stop and Start System, set the switch to " \triangle ". To turn off the Stop and Start System, set this switch to " \triangle ".

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.

EAUN2571

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.

Fuel tank cap

EAU12952

To open the fuel tank cap lid, turn the main switch to "OPEN" position and push the "FUEL" button.



1. "FUEL" button

To open the the fuel tank cap, turn it counterclockwise and pull it off.



Fuel tank cap lic
Fuel tank cap

To install the fuel tank cap, turn it clockwise until the " \triangle " mark is facing forward. Close the fuel tank cap lid.



2. Fuel tank cap

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

Fuel

FWA10132

Make sure there is sufficient gasoline in the tank.

EWA10882

EAU13213

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

- Before refueling, turn off the engine and be sure that no one is sitting on the vehicle. Never refuel while smoking, or while in the vicinity of sparks, open flames, or other sources of ignition such as the pilot lights of water heaters and clothes dryers.
- 2. Do not overfill the fuel tank. Stop filling when the fuel reaches the bottom of the filler tube. Because fuel expands when it heats up, heat from the engine or the sun can cause fuel to spill out of the fuel tank.



Fuel tank filler tube
Maximum fuel level

- 3. Wipe up any spilled fuel immediately. *NOTICE:* Immediately wipe off spilled fuel with a clean, dry, soft cloth, since fuel may deteriorate painted surfaces or plastic parts. [CA10072]
- 4. Be sure to securely close the fuel tank cap.

EWA15152

🛕 WARNING

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

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

EAUU0045

FCA11401

Recommended fuel: Regular unleaded gasoline (E10 acceptable) Fuel tank capacity:

7.1 L (1.9 US gal, 1.6 Imp.gal)

NOTICE

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



1. Fuel tank overflow hose

The overflow hose drains excess gasoline and directs it safely away from the vehicle.

Before operating the vehicle:

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

EAU86150

Catalytic converter

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

EWA10863

5

EAU13435

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.

Seat

To open the seat

 Insert the mechanical key into the keyhole, and then turn to "OPEN" position.



2. Push the "SEAT" button, to open seat.

To close the seat

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

TIP

Make sure that the seat is properly secured before riding.

Helmet holders



1. Helmet holder

The helmet holders are located under the seat.

To secure a helmet to a helmet holder

- 1. Open the seat. (See page 5-14.)
- 2. Attach a helmet to a helmet holder, and then securely close the seat. WARNING! Never ride with a helmet attached to the helmet holder, since the helmet may hit objects, causing loss of control and possibly an accident. [EWA10162]

To release a helmet from a helmet holder

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

EAU37482

Storage compartments

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

EAUN2612



- 1. Storage compartment A
- 2. Storage compartment B



^{1.} Rear storage compartment
TIP

Some helmets cannot be stored in the rear storage compartment because of their size or shape.

Storage compartment B

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



1. Lid

2. Storage compartment B

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

Rear storage compartment

To open the rear storage compartment, turn the main switch to "OPEN", and then push the "SEAT" button.

TIP_

Do not leave your vehicle unattended with the seat open.

NOTICE

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

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

 Do not keep anything valuable or breakable in the storage compartment.

EWA18950

ECA21150

- Do not exceed the load limit of 1.5 kg (3.3 lb) for storage compartment A.
- Do not exceed the load limit of 0.3 kg (1 lb) for storage compartment B.
- Do not exceed the load limit of 5.0 kg (11 lb) for the rear storage compartment.
- Do not exceed the maximum load of 156 kg (344 lb) for the vehicle.

Instrument and control functions

Power outlet

EAUN2161

ECAN0140

This model is equipped with a 12V DC power outlet.



1. Power outlet

NOTICE

5

Do not use the power outlet when the engine is off, and do not exceed the specified electrical load; otherwise the fuse may blow or the battery may discharge.

When washing the vehicle, do not direct high-pressure washers at the power outlet area.

Maximum electrical load: 12 W (1A)

To use the power outlet

- 1. Turn the vehicle power off.
- 2. Remove the power outlet cap.
- 3. Turn the accessory off.
- 4. Insert the accessory plug into the power outlet.
- 5. Turn the vehicle power on and start the engine.
- 6. Turn the accessory on.

TIP_

When finished riding, turn off the accessory and disconnect it from the power outlet, and then install the cap.

1. Power outlet cap

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

EWAN0050

Instrument and control functions

EAU15306

Sidestand

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

TIP _____

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

EWA10242

The vehicle must not be ridden with the sidestand down, or if the sidestand cannot be properly moved up (or does not stay up), otherwise the sidestand could contact the ground and distract the operator, resulting in a possible loss of control. Yamaha's ignition circuit cut-off system has been designed to assist the operator in fulfilling the responsibility of raising the sidestand before starting off. Therefore, check this system regularly and have a Yamaha dealer repair it if it does not function properly.

Ignition circuit cut-off system

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



- The vehicle must be placed on the centerstand during this inspection.
- If a malfunction is found, have the vehicle inspected before riding.

EAU1559A

FWA11152

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.

A WARNING

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

Before using this vehicle, check the following points:

ITEM	CHECKS	PAGE
Fuel	 Check fuel level in fuel tank. Refuel if necessary. Check fuel line for leakage. Check fuel tank overflow hose for obstructions, cracks or damage, and check hose connection. 	
Engine oil Check oil level in engine. If necessary, add recommended oil to specified level. Check vehicle for oil leakage.		8-11
Final transmission oil	Ial transmission oil • Check vehicle for oil leakage.	
Coolant Ocheck coolant level in reservoir. If necessary, add recommended coolant to specified level. Check cooling system for leakage.		8-15

For your safety – pre-operation checks

ITEM	CHECKS	PAGE
Front brake	 Check operation. If soft or spongy, have Yamaha dealer bleed hydraulic system. Check brake pads for wear. Replace if necessary. Check fluid level in reservoir. If necessary, add specified brake fluid to specified level. Check hydraulic system for leakage. 	8-22, 8-23, 8-23
Rear brake	 Check operation. If soft or spongy, have Yamaha dealer bleed hydraulic system. Check brake pads for wear. Replace if necessary. Check fluid level in reservoir. If necessary, add specified brake fluid to specified level. Check hydraulic system for leakage. 	8-22, 8-23, 8-23
Throttle grip	8-19, 8-25	
Control cables	Make sure that operation is smooth.Lubricate if necessary.	8-25
Wheels and tires	Check for damage. Check tire condition and tread depth. Check air pressure. Correct if necessary.	8-20, 8-22
Brake levers	Make sure that operation is smooth.Lubricate lever pivoting points if necessary.	8-26
Centerstand, sidestand	Make sure that operation is smooth.Lubricate pivots if necessary.	8-26

For your safety – pre-operation checks

ITEM	CHECKS	PAGE
Chassis fasteners	 Make sure that all nuts, bolts and screws are properly tightened. Tighten if necessary. 	_
Instruments, lights, signals and switches • Check operation. • Correct if necessary.		_
Sidestand switch	 Check operation of ignition circuit cut-off system. If system is not working correctly, have Yamaha dealer check vehicle. 	5-17

EAU15952

EWA10272

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.

Failure to familiarize yourself with the controls can lead to loss of control, which could cause an accident or injury. EAU16842

Engine break-in

There is never a more important period in the life of your engine than the period between 0 and 1600 km (1000 mi). For this reason, you should read the following material carefully.

Since the engine is brand new, do not put an excessive load on it for the first 1600 km (1000 mi). The various parts in the engine wear and polish themselves to the correct operating clearances. During this period, prolonged full-throttle operation or any condition that might result in engine overheating must be avoided.

0–1000 km (0–600 mi) EAUM2012 Avoid prolonged operation above 1/3 throttle. *NOTICE:* After 1000 km (600 mi) of operation, be sure to replace the engine oil and final transmission oil. IECALLER

1000-1600 km (600-1000 mi)

Avoid prolonged operation above 1/2 throttle.

1600 km (1000 mi) and beyond

The vehicle can now be operated normally. ECA10271

NOTICE

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

Operation and important riding points

Starting the engine

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

To start the engine

- 1. Turn the main switch on.
- 2. Confirm the indicator and warning light(s) come on for a few seconds, and the go off. (See page 5-2.)

TIP ____

Do not start the engine if the engine trouble warning light remains on.

ECA24110

FAL 186740

NOTICE

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

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

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

ECA11043

NOTICE

For maximum engine life, never accelerate hard when the engine is cold! EAUN0073

ECAN0072

NOTICE

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

Operation and important riding points

FAU45093

Starting off

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



1. Grab bar

- 2. Sit astride the seat, and then adjust the rear view mirrors.
- 3. Switch the turn signals on.
- 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



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

• Avoid braking hard or suddenly (especially when leaning over to one side), otherwise the vehicle may skid or overturn.

FAU60650

EWA17790

- 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.

EAU16821

Tips for reducing fuel con-

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).

Parking

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

EWA18840

EAU77861

- Since the engine and exhaust system can become very hot, park in a place where pedestrians or children are not likely to touch them and be burned.
- Do not park on a slope or on soft ground, otherwise the vehicle may overturn, increasing the risk of a fuel leak and fire.
- Do not park near grass or other flammable materials which might catch fire.
- If the Stop and Start System is left turned on, the battery could become discharged and it may not be possible to restart the engine due to insufficient battery voltage.

7-4

7

EAU17246

EWA10322

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.

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.

Turn off the engine when performing maintenance unless otherwise specified.

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

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

EWA15123 Tool kit



FAU85230

1. Tool kit

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

TIP_

EWA15461

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

EAUU0621

TIP_

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

Periodic maintenance chart for the emission control system

EAUU1294

8

				ODOMETER READING (whichever comes first)					
N	0.	ITEM	CHECK OR MAINTENANCE JOB	1000 km or 1 months	4000 km or 4 months	8000 km or 8 months	12000 km or 12 months	16000 km or 16 months	ANNUAL CHECK
1	*	Fuel line	Check fuel hoses for cracks or damage.		\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
2	*	Fuel filter	Check condition.Replace if necessary.			Every 12000	km (7500 mi)		
3		Spark plug	Check condition.Clean and regap.		\checkmark	\checkmark	\checkmark	\checkmark	
			• Replace.	Every 8000 km (5000 mi)					
4	*	Valves	Check valve clearance.Adjust if necessary.			\checkmark		\checkmark	
5	*	Fuel injection	Check engine idle speed.		\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
6	*	Exhaust system	 Check for leakage. Tighten if necessary. Replace gasket(s) if necessary. 		\checkmark	\checkmark	\checkmark	\checkmark	\checkmark

General maintenance and lubrication chart

ODOMETER READING (whichever comes first) ANNUAL 1000 km 4000 km 8000 km 12000 km 16000 km NO. ITEM CHECK OR MAINTENANCE JOB CHECK or or or or or 4 months 1 months 8 months 12 months 16 months · Perform dynamic inspection us-**Diagnostic system** 1 ing Yamaha diagnostic tool. $\sqrt{}$ $\sqrt{}$ $\sqrt{}$ $\sqrt{}$ $\sqrt{}$ $\sqrt{}$ check Check the error codes. Every 12000 km (7500 mi) 2 Air filter element • Replace. $\sqrt{}$ $\sqrt{}$ $\sqrt{}$ 3 $\sqrt{}$ $\sqrt{}$ Air filter check hose • Clean. Clean. V-belt case air filter $\sqrt{}$ 4 $\sqrt{}$ $\sqrt{}$ $\sqrt{}$ element • Replace if necessary. Check voltage. $\sqrt{}$ $\sqrt{}$ $\sqrt{}$ $\sqrt{}$ $\sqrt{}$ 5 Batterv $\sqrt{}$ Charge if necessary. Check operation, fluid level and $\sqrt{}$ $\sqrt{}$ $\sqrt{}$ $\sqrt{}$ $\sqrt{}$ $\sqrt{}$ vehicle for fluid leakage. 6 Front brake • Replace brake pads. Whenever worn to the limit · Check operation, fluid level and $\sqrt{}$ $\sqrt{}$ $\sqrt{}$ $\sqrt{}$ $\sqrt{}$ $\sqrt{}$ vehicle for fluid leakage. 7 Rear brake Replace brake pads. Whenever worn to the limit

EAUU1287

				ODO	ODOMETER READING (whichever comes first)				
NO.		ITEM	CHECK OR MAINTENANCE JOB	1000 km or 1 months	4000 km or 4 months	8000 km or 8 months	12000 km or 12 months	16000 km or 16 months	ANNUAL CHECK
8	*	Brake hoses	 Check for cracks or damage. Check for correct routing and clamping. 		\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
			• Replace.			Every	4 years		
9	*	Brake fluid	• Change.	Every 2 years					
10	*	Wheels	Check runout and for damage.		\checkmark	\checkmark	\checkmark	\checkmark	
11	*	Tires	 Check tread depth and for damage. Replace if necessary. Check air pressure. Correct if necessary. 		\checkmark	V	V	V	\checkmark
12	*	Wheel bearings	 Check bearings for looseness or damage. 		\checkmark	\checkmark	\checkmark	\checkmark	
	*		 Check bearing play and steering for roughness. 	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	
13		Steering bearings	 Lubricate with lithium-soap- based grease. 		•	Every 24000	km (14000 mi))	
14	*	Chassis fasteners	 Make sure that all nuts, bolts and screws are properly tightened. 		\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
15		Front brake lever pivot shaft	Lubricate with silicone grease.			\checkmark	\checkmark	\checkmark	\checkmark
16		Rear brake lever pivot shaft	Lubricate with silicone grease.		\checkmark	\checkmark	\checkmark	\checkmark	\checkmark

				ODC	DMETER REA	DING (which	ever comes	first)	
NO.		ITEM	CHECK OR MAINTENANCE JOB	1000 km or 1 months	4000 km or 4 months	8000 km or 8 months	12000 km or 12 months	16000 km or 16 months	ANNUAL CHECK
17		Sidestand, center- stand	 Check operation. Lubricate with lithium-soap- based grease. 		\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
18	*	Sidestand switch	Check operation.	\checkmark	\checkmark	\checkmark	\checkmark		
19	*	Front fork	Check operation and for oil leak- age.		\checkmark	\checkmark	\checkmark	\checkmark	
20	*	Shock absorber as- semblies	 Check operation and shock ab- sorbers for oil leakage. 		\checkmark	\checkmark	\checkmark	\checkmark	
			• Change.	\checkmark		When the oi	I change indic	ator flashes	
21		Engine oil	Check oil level and vehicle for oil leakage.		Every	4000 km (25)	00 mi)		\checkmark
22	*	Engine oil strainer	• Clean.	\checkmark					\checkmark
23	*	Cooling system	 Check coolant level and vehicle for coolant leakage. 		\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
			Change coolant.			Every 12000	km (7500 mi)		
		Final transmission	Check vehicle for oil leakage.	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	
24		oil	• Change.	V		Every	12000 km (75	00 mi)	

Γ				ODOMETER READING (whichever comes first)					
NO.		ITEM	CHECK OR MAINTENANCE JOB	1000 km or 1 months	4000 km or 4 months	8000 km or 8 months	12000 km or 12 months	16000 km or 16 months	ANNUAL CHECK
05	*	Vhalt	Check for damage and wear.			\checkmark	\checkmark	\checkmark	
20		V-Delt	• Replace.	When the	V-belt replace	ement indicato	or flashes [eve	ry 25000 km (15500 mi)]
26	*	V-belt secondary sheave	Lubricate.			Every 12000	km (7500 mi)		
27	*	Front and rear brake switches	Check operation.	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
28		Moving parts and cables	• Lubricate.		\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
29	*	Throttle grip	 Check operation. Check throttle grip free play, and adjust if necessary. Lubricate cable and grip housing. 		\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
30	*	Lights, signals and switches	Check operation.Adjust headlight beam.	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark

EAU66860

TIP_

• Air filter

- This model's air filter is equipped with a disposable oil-coated paper element, which must not be cleaned with compressed air to avoid damaging it.
- The air filter element needs to be replaced more frequently when riding in unusually wet or dusty areas.
- V-belt case air filter
 - The air filter needs more frequent service if you are riding in unusually wet or dusty areas.
- V-belt
 - The V-belt should be checked at the initial 8000 km (5000 mi) and every 4000 km (2500 mi) thereafter. Replace the V-belt if any damage or excessive wear is found. The V-belt needs to be replaced every 25000 km (15500 mi) even if there is not wear or damage.
- Hydraulic brake service
 - Regularly check and, if necessary, correct the brake fluid level.
 - Every two years replace the internal components of the brake master cylinders and calipers, and change the brake fluid.
 - Replace the brake hoses every four years and if cracked or damaged.
- Fuel system service
 - Use only unleaded gasoline. The use of leaded gasoline will cause severe damage to internal engine parts, such as the valves and piston rings, as well as to the exhaust system.
 - Replace the fuel filler cover every two years or if cracked or damaged.
 - Check the fuel filter for clogging or damage every 12000 km (7500 mi).
- Battery service
 - Check the condition and service the battery every 3 months.
 - Recharge the battery immediately if the voltage is less than 12.7 V.
 - If the battery tends to discharge, replace it immediately.

Removing and installing panels

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



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

Panel A

To remove the panel

1. Remove the screws.



- 1. Panel A
- 2. Screw

EAUN2600

 Extend the right passenger footrest, and then pull the panel outward.

To install the panel

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



2. Retract the right passenger footrest to its original position.

Panel B

- To remove the panel
- 1. Remove panel A.
- 2. Remove the quick fasteners and the bolt.



Panel B
 Quick fastener



Bolt
 Quick fastener

3. Remove the right floorboard mats by pulling them up.



8

- 1. Floorboard mat
 - 4. Remove the bolts and screw, then pull the panel outward.



1. Bolt

2. Screw

To install the panel

- 1. Place the panel in the original position, and then install the bolts and screw.
- 2. Place the right floorboard mats in their original position and push them downward to secure them.
- 3. Install the bolt and the quick fasteners.
- 4. Install panel A.

Panel C

- To remove the panel
 - 1. Remove the windshield by removing the screws.



- 1. Windshield
- 2. Screw
- 2. Remove the panel by removing the screws.



1. Panel C

2. Screw

To install the panel

- 1. Place the panel in the original position, and then install the screws.
- 2. Install the windshield by installing the screws.

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.

FAU67161

To remove the spark plug

- 1. Place the vehicle on the centerstand.
- 2. Remove panels A and B. (See page 8-8.)
- 3. Remove the spark plug cap.



1. Spark plug cap

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



1. Spark plug wrench

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: NGK/CPR8EA-9

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



1. Spark plug gap

Spark plug gap:

0.8-0.9 mm (0.031-0.035 in)

8

To install the spark plug

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

Tightening torque:

Spark plug: 13 N·m (1.3 kgf·m. 9.6 lb·ft)

TIP_

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

3. Install the spark plug cap.

TIP _____

Install the spark plug cap so that it is positioned as shown in the illustration and the spark plug lead does not contact any surrounding parts.



- 1. Spark plug cap
- 2. Spark plug lead
- 4. Install the panels.

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 centerstand. A slight tilt to the side can result in a false reading.
- 2. Start the engine, warm it up for several minutes, and then turn it off.
- 3. Wait a few minutes until the oil settles, remove the engine oil filler cap, wipe the engine oil dipstick clean, insert it back into the oil filler hole (without screwing it in), and then remove it again to check the oil level. WARNING! The muffler and muffler protector become very hot during use. To avoid possible burns, let the muffler and protector cool before removing the oil filler cap. [EWA17810]

TIP_

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



- 1. Oil filler hole
- 2. O-ring
- 3. Engine oil dipstick
- 4. Maximum level mark
- 5. Tip of the engine oil dipstick
 - 4. If the engine oil is not between the tip of the dipstick and the maximum 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 engine oil drain bolts A and B to drain the oil from the crankcase. *NOTICE:* When removing the engine oil drain bolt B, the Oring, compression spring, and oil strainer will fall out. Take care not to lose these parts.



- 1. Engine oil drain bolt A
- 2. Gasket
- 3. Oil strainer
- 4. Compression spring
- 5. O-ring
- 6. Engine oil drain bolt B
 - Clean the engine oil strainer with solvent, and then check it for damage and replace it if necessary.
 - 5. Install the engine oil strainer, compression spring, new O-ring and engine oil drain bolt B.

TIP ____

Make sure that the O-ring is properly seated.

6. Install engine oil drain bolt A and its new gasket, and then tighten both drain bolts to their specified torques.

Tightening torque:

Engine oil drain bolt A: 20 N·m (2.0 kgf·m, 15 lb·ft) Engine oil drain bolt B: 32 N·m (3.2 kgf·m, 24 lb·ft)

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

Recommended engine oil: See page 10-1. Oil quantity: 0.90 L (0.95 US qt, 0.79 Imp.qt)

TIP ____

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

ECA24060

NOTICE

Make sure that no foreign material enters the crankcase.

8. 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.

- 9. Turn the engine off, and then check the oil level and correct it if necessary.
- 10. Reset the oil change tripmeter and oil change indicator "OIL".

Final transmission oil

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

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

EAU67821



1. Final transmission oil filler cap

2. O-ring

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



1. Final transmission oil drain bolt

2. Gasket

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

TIP_

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

Tightening torque:

Final transmission oil drain bolt: 20 N·m (2.0 kgf·m, 15 lb·ft)

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

Recommended final transmission oil: See page 10-1. Oil quantity: 0.10 L (0.11 US qt, 0.09 Imp.qt)

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

EAU20071

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.

EAUN2170

To check the coolant level

1. Place the vehicle on the centerstand.

8

TIP

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

TIP_

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



- 1. Coolant level check window
- 2. Maximum level mark
- 3. Minimum level mark
 - If the coolant is at or below the minimum level mark, remove the right floorboard mat by pulling it up.



- 1. Floorboard mat
- 4. Remove the coolant reservoir cover.



- 1. Coolant reservoir cover
 - 5. Remove the coolant reservoir cap, add coolant to the maximum level mark, and then install the reservoir cap. **WARNING! Remove only**

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. IECA104731



1. Coolant reservoir cap

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

- 6. Install the coolant reservoir cover.
- 7. Place the right floorboard mat in the original position and push it downward to secure it.

EAU33032

Changing the coolant

The coolant must be changed at the intervals specified in the periodic maintenance and lubrication chart. Have a Yamaha dealer change the coolant. WARNING! Never attempt to remove the radiator cap when the engine is hot. [EWA10382]

Air filter and V-belt case air filter elements

The air filter element should be replaced and the V-belt case air filter element should be cleaned at the intervals specified in the periodic maintenance and lubrication chart. Service the air filter elements more frequently if you are riding in unusually wet or dusty areas. The air filter check hose and Vbelt case air filter check hose must be frequently checked and cleaned if necessary.

Cleaning the air filter check hose



1. Air filter check hose

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

TIP_

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

Replacing the air filter element

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



1. Air filter case cover

3. Pull the air filter element out.



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

[ECA10482]

ECA21220

NOTICE

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

^{2.} Screw

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

Cleaning the V-belt case check hose



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

TIP_

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

Cleaning the V-belt case air filter element

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



^{1.} V-belt case air filter element cover

- 2. Screw
- 3. Pull the V-belt case air filter element out, and then clean it with solvent. After cleaning, remove the remaining solvent by squeezing the element. WARNING! Use only a dedicated parts cleaning solvent. To avoid the risk of fire or explosion, do not use gasoline or solvents with a low flash point. [EWA10432] NOTICE: To avoid damaging the air filter element, handle it gently and carefully, and do not twist it. [ECA10522]



1. V-belt case air filter element



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

TIP_____

• The air filter element should be wet but not dripping.

• Check the air filter element for excessive dirt or damage and replace it if necessary.

Recommended oil:

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

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

Checking the throttle grip free play

Measure the throttle grip free play as shown.



1. Throttle grip free play

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

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

Valve clearance

FAI 121403

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

TIP

This service must be performed when the engine is cold.

Tires

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

Tire air pressure

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

EWA10504

FAL 182721

WARNING

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

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

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

Cold tire air pressure:
1 person:
Front:
150 kPa (1.50 kgf/cm², 22 ps
Rear:
250 kPa (2.50 kgf/cm², 36 psi)
2 persons:
Front:
150 kPa (1.50 kgf/cm², 22 ps
Rear:
250 kPa (2.50 kgf/cm ² , 36 psi)
Maximum load:
Vehicle:

156 kg (344 lb) The vehicle's maximum load is the

combined weight of the rider, passenger, cargo, and any accessories.

EWA10512

WARNING

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

Tire inspection



- 1. Tire sidewall
- 2. Tire wear indicator

8

3. Tire tread depth

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

Minimum tire tread depth (front and rear):

1.0 mm (0.04 in)

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

Tire information

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

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

EWA10583

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

EWA10462

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

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

Front tire:

Size: 110/70-13M/C 48P Manufacturer/model: IRC/SS-570F **Rear tire:** Size: 130/70-13M/C 63P Manufacturer/model: IRC/SS-560R

Cast wheels

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

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

Checking the front and rear brake lever free play

Front

FAU21963



1. No brake lever free play

Rear



1. No brake lever free play

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

EWA14212

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

FAU22433

Checking the front and rear brake pads

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

Front brake pads



1. Brake pad wear indicator groove

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

Rear brake pads



1. Brake pad wear indicator

Each rear brake pad is provided with a wear indicator, which allows you to check the brake pad wear without having to disassemble the brake. To check the brake pad wear, check the position of the wear indicator while applying the brake. If a brake pad has worn to the point that the wear indicator almost touches the brake disc, have a Yamaha dealer replace the brake pads as a set.

Checking the brake fluid level

Before riding, check that the brake fluid is above the minimum level mark. Check the brake fluid level with the reservoir in an upright position. Replenish the brake fluid if necessary.

Specified	brake fluid:
DOT 4	

ECA17641

NOTICE

FAI 122461

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

Front brake



1. Minimum level mark

Rear brake



1. Minimum level mark

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

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

EWA15991

 Insufficient brake fluid may allow air to enter the brake system, reducing braking performance.

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

Changing the brake fluid

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

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

FAI 122734

WARNING

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

FAUL0311

Checking the V-belt

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

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. IEWA10712

Recommended lubricant: Yamaha cable lubricant or other suitable cable lubricant

FAI 123098

FAI 149921 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
FAI 123173 Lubricating the front and rear brake levers

Front brake lever



Rear brake lever



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

Recommended lubricant: Silicone grease

FAU23215 Checking and lubricating the centerstand and sidestand



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

EWA10742

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

Recommended lubricant: Lithium-soap-based grease

EAU23273

Checking the front fork

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

To check the condition

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

To check the operation

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



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.

FAU45512

- 1. Place the vehicle on the centerstand. WARNING! To avoid injury, securely support the vehicle so there is no danger of it falling
 - **OVE**. [EWA10752]
- 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.





Checking the wheel bearings

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



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

The battery is located under the seat. (See page 5-14.)

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.

EWA10761

A WARNING

 Electrolyte is poisonous and dangerous since it contains sulfuric acid, which causes severe

FAU50292

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 BATTER-IES OUT OF THE REACH OF CHILDREN.

To charge the battery

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

ECA16522

NOTICE

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

To store the battery

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

nect the positive lead before connecting the negative lead. [ECA16842]

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

ECA16531

NOTICE

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

EAUN2580

Replacing the fuses The fuse boxes, which contain the fuses for the individual circuits, are located under panel C. (See page 8-8.)



1. Fuse box



- 1. Terminal fuse 1
- 2. Headlight fuse
- 3. Ignition fuse
- 4. Main fuse
- 5. Backup fuse
- 6. Fuel injection system fuse
- 7. Backup fuse
- 8. Signaling system fuse

If a fuse is blown, replace it as follows.

- 1. Turn off the electrical circuit in question, and then turn off the main switch.
- 2. Remove the panel C. (See page 8-8)
- Remove the blown fuse, and then install a new fuse of the specified amperage. WARNING! Do not use a fuse of a higher amperage rating than recommended to

avoid causing extensive damage to the electrical system and possibly a fire. [EWA15132]

Specified fuses:
Main fuse:
30.0 A
Terminal fuse 1:
5.0 A
Headlight fuse:
7.5 A
Signaling system fuse:
7.5 A
Ignition fuse:
7.5 A
Fuel injection system fuse:
7.5 A
Backup fuse:
7.5 A

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

TIP

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

5. Install the panel C. (See page 8-8)

EAUN2261

ECA16581

Vehicle lights

This model is equipped with LED lights for headlights, auxiliary lights and brake/tail light. If a light does not come on, check the fuse and then have a Yamaha dealer check the vehicle.



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

NOTICE

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

Replacing a front turn signal light bulb

- 1. Place the vehicle on the centerstand.
- 2. Remove the turn signal light bulb socket (together with the bulb) by turning it counterclockwise.



- 1. Turn signal light bulb socket
- 3. Remove the burnt-out bulb by pulling it out.

8-31



1. Turn signal light bulb

- 4. Insert a new bulb into the socket.
- 5. Install the socket (together with the bulb) by turning it clockwise.

Replacing a rear turn signal light bulb

- 1. Open the seat. (See page 5-14.)
- 2. Remove the grab bar by removing the bolts.



3. Remove the taillight cover by re-

moving the screws.

2. Bolt

- 1. Taillight cover
- 2. Screw
- 4. Remove the turn signal light bulb socket (together with the bulb) by turning it counterclockwise.



- 1. Turn signal light bulb socket
- 5. Remove the burnt-out bulb by pulling it out.



- 1. Turn signal light bulb
- 6. Insert a new bulb into the socket.
- 7. Install the socket (together with the bulb) by turning it clockwise.
- 8. Install the taillight cover by installing the screws.



9. Install the grab bar by installing the bolts, and then tightening them to the specified torque.

Tightening torque:

Grab bar bolt: 17 N·m (1.7 kgf·m, 13 lb·ft)

10. Close the seat.

Troubleshooting

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

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

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

EAU60701

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.

EAU76843

Stop and Start System troubleshooting

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

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

- 1. Is the main switch turned on?
- 2. Is the Stop and Start System switch set to "(A)"?
- 3. Was the engine warmed up sufficiently after starting?
- 4. After the engine was warmed up, was the engine left idling for a certain period of time?

5. Did the vehicle travel at a speed of 10 km/h or higher?

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

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

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

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

1. Was the vehicle stopped completely?

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

2. Is the throttle grip turned? The engine does not stop automatically if the throttle grip is not in the fully closed position. Turn the throttle grip to the fully closed position.

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

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

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

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

- 2. Was the sidestand operated? When the sidestand is lowered, the Stop and Start System is deactivated.
- 3. Was the engine left stopped by the Stop and Start System for a long period of time?

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

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

Troubleshooting chart



EAU86350

Engine overheating

EAU86420 EWAT1041

8

- 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.

Matte color caution

EAU37834

NOTICE

Some models are equipped with matte colored ÿnished 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 ÿnished parts.

Care

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

TIP_

- Genuine Yamaha care and maintenance products are sold under the YAMALUBE brand in many markets worldwide.
- See your Yamaha dealer for additional cleaning tips.

ECA26280

FAL 184990

NOTICE

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

 high-pressure washers or steam-jet cleaners. Excessive water pressure may cause wa-

9-1

ter seepage and deterioration of wheel bearings, brakes, transmission seals and electrical devices. Avoid high-pressure detergent applications such as those available in coin-operated car washers.

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

Before washing

1. Park the vehicle out of direct sunlight and allow it to cool. This will help avoid water spots.

- 2. Make sure all caps, covers, electrical couplers and connectors are tightly installed.
- 3. Cover the muffler end with a plastic bag and a strong rubber band.
- 4. Pre-soak stubborn stains like insects or bird droppings with a wet towel for a few minutes.
- Remove road grime and oil stains with a quality degreasing agent and a plastic-bristle brush or sponge. *NOTICE:* Do not use degreasing agent on areas requiring lubrication such as seals, gaskets, and wheel axles. Follow product instructions.

Washing

 Rinse off any degreaser and spray down the vehicle with a garden hose. Use only enough pressure to do the job. Avoid spraying water directly into the muffler, instrument panel, air inlet, or other inner areas such as underseat storage compartments.

- Wash the vehicle with a quality automotive-type detergent mixed with cool water and a soft, clean towel or sponge. Use an old toothbrush or plastic-bristle brush for hard-to-reach places. NOTICE: Use cold water if the vehicle has been exposed to salt. Warm water will increase salt's corrosive properties. [ECA26501]
- 3. For windshield-equipped vehicles: Clean the windshield with a soft towel or sponge dampened with water and a pH neutral detergent. If necessary, use a high-quality windshield cleaner or polish for motorcycles. *NOTICE:* Never use any strong chemicals to clean the windshield. Additionally, some cleaning compounds for plastic may scratch the windshield, so be sure to test all cleaning products before general application. [ECA26310]
- 4. Rinse off thoroughly with clean water. Be sure to remove all detergent residues, as they can be harmful to plastic parts.

After washing

- 1. Dry the vehicle with a chamois or absorbent towel, preferably microfiber terrycloth.
- 2. For drive chain-equipped models: Dry and then lubricate the drive chain to prevent rust.
- 3. Use a chrome polish to shine chrome, aluminum, and stainless steel parts. Often the thermally induced discoloring of stainless steel exhaust systems can be removed through polishing.

9

- Apply a corrosion protection spray on all metal parts including chrome or nickel-plated surfaces.
 WARNING! Do not apply silicone or oil spray to seats, hand grips, rubber foot pegs or tire treads. Otherwise these parts will become slippery, which could cause loss of control. Thoroughly clean the surfaces of these parts before operating the vehicle. [EWA20650]
- 5. Treat rubber, vinyl, and unpainted plastic parts with a suitable care product.

Motorcycle care and storage

- 6. Touch up minor paint damage caused by stones, etc.
- Wax all painted surfaces using a non-abrasive wax or use a detail spray for motorcycles.
- 8. When finished cleaning, start the engine and let it idle for several minutes to help dry any remaining moisture.
- 9. If the headlight lens has fogged up, start the engine and turn on the headlight to help remove the moisture.
- 10. Let the vehicle dry completely before storing or covering it.

ECA26320

NOTICE

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

EWA20660

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

- Make sure there is no lubricant or wax on the brakes or tires.
- If necessary, wash the tires with warm water and a mild detergent.
- If necessary, clean the brake discs and pads with brake cleaner or acetone.
- Before riding at higher speeds, test the vehicle's braking performance and cornering behavior.

Storage

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

ECA21170

NOTICE

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

Long term storage

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

EAU83472

Motorcycle care and storage

- 1. Make all necessary repairs and perform any outstanding maintenance.
- 2. Follow all instructions in the Care section of this chapter.
- 3. Fill up the fuel tank, adding fuel stabilizer according to product instructions. Run the engine for 5 minutes to distribute treated fuel through the fuel system.
- 4. For vehicles equipped with a fuel cock: Turn the fuel cock lever to the off position.
- 5. For vehicles with a carburetor: To prevent fuel deposits from building up, drain the fuel in the carburetor float chamber into a clean container. Retighten the drain bolt and pour the fuel back into the fuel tank.
- Use a quality engine fogging oil according to product instructions to protect internal engine components from corrosion. If engine fogging oil is not available, perform the following steps for each cylinder:
 - a. Remove the spark plug cap and spark plug.

- b. Pour a teaspoonful of engine oil into the spark plug bore.
- c. Install the spark plug cap onto the spark plug, and then place the spark plug on the cylinder head so that the electrodes are grounded. (This will limit sparking during the next step.)
- d. Turn the engine over several times with the starter. (This will coat the cylinder wall with oil.)
 WARNING! To prevent damage or injury from sparking, make sure to ground the spark plug electrodes while turning the engine over.
- e. Remove the spark plug cap from the spark plug, and then install the spark plug and the spark plug cap.
- Lubricate all control cables, pivots, levers and pedals, as well as the sidestand and centerstand (if equipped).
- 8. Check and correct the tire air pressure, and then lift the vehicle so that all wheels are off the ground. Otherwise, turn the

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

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

TIP.

- If the battery will be removed, charge it once a month and store it in a temperate location between 0-30 °C (32-90 °F).
- See page 8-28 for more information on charging and storing the battery.

Specifications

Dimensions:

Overall length: 1935 mm (76.2 in) Overall width: 740 mm (29.1 in) Overall height: 1160 mm (45.7 in) Seat height: 765 mm (30.1 in) Wheelbase: 1340 mm (52.8 in) Ground clearance: 124 mm (4.88 in) Minimum turning radius: 2.0 m (6.56 ft)

Weight:

Engine:

Curb weight: 130 kg (287 lb)

10

Combustion cycle: 4-stroke Cooling system: Liquid cooled Valve train: SOHC Number of cylinders: Single cylinder Displacement: 155.09 cm³ Bore \times stroke: 58.0 \times 58.7 mm (2.28 \times 2.31 in) Starting system: Electric starter

Engine oil:

SAE viscosity grades: 10W-40 Recommended engine oil grade: API service SG type or higher, JASO standard MA or MB Engine oil quantity: Oil change: 0.90 L (0.95 US at, 0.79 Imp.at) Final transmission oil: Type: Motor oil SAE 10W-30 type SE or higher or Gear oil SAF 85W GL-3 Quantity: 0.10 L (0.11 US qt, 0.09 Imp.qt) Coolant quantity: Coolant reservoir (up to the maximum level mark): 0.13 L (0.14 US at, 0.11 Imp.qt) Radiator (including all routes): 0.46 L (0.49 US at. 0.40 Imp.at) Fuel: Recommended fuel: Unleaded gasoline (E10 acceptable) Fuel tank capacity: 7.1 L (1.9 US gal, 1.6 Imp.gal) Fuel reserve amount: 1.7 L (0.45 US gal, 0.37 Imp.gal) **Fuel injection:** Throttle body: ID mark: B651 00

Front tire:

Type: Tubeless Size: 110/70-13M/C 48P Manufacturer/model: IRC/SS-570F **Rear tire:** Type: Tubeless Size: 130/70-13M/C 63P Manufacturer/model: IRC/SS-560R Loading: Maximum load: 156 kg (344 lb) (Total weight of rider, passenger, cargo and accessories) Front brake: Type: Hydraulic single disc brake **Rear brake:** Type: Hvdraulic single disc brake Front suspension: Type: Telescopic fork **Rear suspension:** Type: Unit swing **Electrical system:** System voltage: 12 V

Battery:

Model: YTZ6V Voltage, capacity: 12 V, 5.0 Ah (10 HR) Bulb wattage: Headlight: LED Brake/tail light: LED Front turn signal light: 10.0 W Rear turn signal light: 10.0 W Auxiliary light: LED License plate light: 5.0 W

Consumer information

Identification numbers

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

VEHICLE IDENTIFICATION NUMBER:



ENGINE SERIAL NUMBER:



Vehicle identification number

FAU26411

1. Vehicle identification number

The vehicle identification number is stamped into the frame.

TIP _____

FAU26366

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

FAU26442

1. Engine serial number

Engine serial number

The engine serial number is stamped into the crankcase.

Vehicle data recording

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

FAU85400

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

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

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

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

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

www.yamaha-motor.com.my



Pelincir Tulen Yamaha



PELINCIR MOTOSIKAL BERPRESTASI TINGGI

PRINTED IN MALAYSIA

YAMAHA Revsyour Heart