



**2020**

**OWNER'S SERVICE MANUAL  
MANUEL D'ATELIER DU PROPRIÉTAIRE  
FAHRER- UND WARTUNGSHANDBUCH**

**YZ450F**

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

**⚠ Il convient de lire attentivement ce manuel avant la première utilisation du véhicule.**

**⚠ Bitte lesen Sie diese Bedienungsanleitung sorgfältig durch, bevor Sie das Fahrzeug in Betrieb nehmen.**

***YZ450F***  
***YZ450FL***

**B2W-28199-80**



**2020**

**OWNER'S SERVICE MANUAL**

**YZ450F**

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

***YZ450F***  
***YZ450FL***

**B2W-28199-80-E0**

# TABLE OF CONTENTS

<b>GENERAL INFORMATION</b>	<b>1</b>
<b>SPECIFICATIONS</b>	<b>2</b>
<b>PERIODIC CHECKS AND ADJUSTMENTS</b>	<b>3</b>
<b>CHASSIS</b>	<b>4</b>
<b>ENGINE</b>	<b>5</b>
<b>COOLING SYSTEM</b>	<b>6</b>
<b>FUEL SYSTEM</b>	<b>7</b>
<b>ELECTRICAL SYSTEM</b>	<b>8</b>
<b>TROUBLESHOOTING</b>	<b>9</b>
<b>TUNING</b>	<b>10</b>

---

## GENERAL INFORMATION

<b>SAFETY INFORMATION</b> .....	1-1
FOR SAFETY, BE SURE TO OBEY THE FOLLOWING: .....	1-1
<b>LOCATION OF IMPORTANT LABELS</b> .....	1-4
<b>DESCRIPTION</b> .....	1-7
<b>IDENTIFICATION</b> .....	1-8
VEHICLE IDENTIFICATION NUMBER .....	1-8
ENGINE SERIAL NUMBER .....	1-8
<b>INCLUDED PARTS</b> .....	1-9
SIDESTAND .....	1-9
NIPPLE WRENCH.....	1-9
HANDLEBAR PROTECTOR.....	1-9
FUEL HOSE JOINT COVER.....	1-9
POWER TUNER.....	1-9
<b>IMPORTANT INFORMATION</b> .....	1-11
PREPARATION FOR REMOVAL AND DISASSEMBLY.....	1-11
REPLACEMENT PARTS.....	1-11
GASKETS, OIL SEALS AND O-RINGS .....	1-11
LOCK WASHERS/PLATES AND COTTER PINS .....	1-12
BEARINGS AND OIL SEALS .....	1-12
CIRCLIPS .....	1-12
<b>BASIC SERVICE INFORMATION</b> .....	1-13
ELECTRICAL SYSTEM.....	1-13
<b>SPECIAL TOOLS</b> .....	1-17
<b>INSTRUMENT AND CONTROL FUNCTIONS</b> .....	1-23
ENGINE STOP SWITCH.....	1-23
START SWITCH.....	1-23
LAUNCH CONTROL SWITCH .....	1-23
MODE SWITCH.....	1-23
SHIFT PEDAL .....	1-24
FRONT BRAKE LEVER .....	1-24
REAR BRAKE PEDAL.....	1-24
STARTER KNOB.....	1-24
FUEL TANK CAP .....	1-25
<b>STARTING AND BREAK-IN</b> .....	1-26
FUEL .....	1-26
STARTING A COLD ENGINE .....	1-26

---

STARTING A WARM ENGINE .....	1-27
BREAK-IN PROCEDURES .....	1-27
ENGINE STARTING PRECAUTION .....	1-27
<b>MAINTENANCE AFTER BREAK-IN .....</b>	<b>1-28</b>
MAJOR MAINTENANCE .....	1-28
AIR FILTER MAINTENANCE .....	1-28
<b>TORQUE-CHECK POINTS.....</b>	<b>1-29</b>
<b>MOTORCYCLE CARE AND STORAGE .....</b>	<b>1-31</b>
CARE.....	1-31
STORAGE .....	1-32

EAM20168

## SAFETY INFORMATION

Be sure to read this owner's service manual carefully and completely in order to operate the machine safely and correctly prior to riding the Yamaha machine, and take care to maintain it properly and operate it safely.

EAM30401

### FOR SAFETY, BE SURE TO OBEY THE FOLLOWING:

#### 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:

1. Obtain thorough instructions from a competent source on all aspects of motorcycle operation.
2. Observe the warnings and maintenance requirements in this Owner's Service Manual.
3. Obtain qualified training in safe and proper riding techniques.
4. Obtain professional technical service as indicated in this Owner's Service Manual and/or when made necessary by mechanical conditions.
5. 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

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. Refer to "PRE-OPERATION INSPECTION AND MAINTENANCE" on page 3-5 for a list of pre-operation checks.

1. This motorcycle is designed for off-road use only, therefore, it is illegal to operate it on public streets, roads, or highways, even a dirt or gravel one. Off-road use on public lands may be illegal. Please check local regulations before riding.

2. This motorcycle is designed to carry the operator only. No passengers.
3. The failure of motorists to detect and recognize motorcycles in traffic is the predominant cause of automobile/motorcycle accidents. Many 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.
  - Ride 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.
4. Many accidents involve inexperienced operators.
    - Make sure that you are qualified and that you only lend your motorcycle to other qualified operators.
    - Know your skills and limits. Staying within your limits may help you to avoid an accident.
    - We recommend that you practice riding your motorcycle until you have become thoroughly familiar with the motorcycle and all of its controls.
  5. 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 under cornering (insufficient lean angle for the speed). Never travel faster than warranted by conditions.
  6. Ride cautiously in unfamiliar areas. You may encounter hidden obstacles that could cause an accident.
  7. The posture of the operator is important for proper control. The operator should keep both hands on the handlebar and both feet on the operator footrests during operation to maintain control of the motorcycle.
  8. Never ride under the influence of alcohol or other drugs.
  9. Be sure the transmission is in neutral before starting the engine.

## 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.

1. Always wear an approved helmet.
2. Wear a face shield or goggles. Wind in your unprotected eyes could contribute to an impairment of vision that could delay seeing a hazard.
3. The use of a jacket, heavy boots, trousers, gloves, etc., is effective in preventing or reducing abrasions or lacerations.
4. Never wear loose-fitting clothes, otherwise they could catch on the control levers, footrests, or wheels and cause injury or an accident.
5. Always wear protective clothing that covers your legs, ankles, and feet. The engine or exhaust system become very hot during or after operation and can cause burns.

## Avoid Carbon Monoxide Poisoning

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

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

1. 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.
2. Do not run engine in poorly ventilated or partially enclosed areas such as barns, garages, or carports.
3. Do not run engine outdoors where engine exhaust can be drawn into a building through openings such as windows and doors.

## Genuine Yamaha Accessories

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

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

## Aftermarket Parts, Accessories, and Modifications

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

1. Never install accessories 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.
  - Accessories fitted to the handlebar or the front fork area can create instability due to improper weight distribution. 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. Wind may attempt to lift the motorcycle, or the motorcycle may become unstable in cross winds.
  - 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.
2. 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 provide the best combination of handling, braking, and comfort. Other tires, rims, sizes, and combinations may not be appropriate. Refer to “CHECKING THE TIRES” on page 3-32 for tire specifications and more information on replacing your tires.

## **Transporting the Motorcycle**

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

1. Remove all loose items from the motorcycle.
2. Check that the fuel cock (if equipped) is in the “OFF” position and that there are no fuel leaks.
3. Point the front wheel straight ahead on the trailer or in the truck bed, and choke it in a rail to prevent movement.
4. Shift the transmission in gear (for models with a manual transmission).
5. Secure the motorcycle with tie-downs 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.
6. The suspension should be compressed somewhat by the tie-downs, if possible, so that the motorcycle will not bounce excessively during transport.

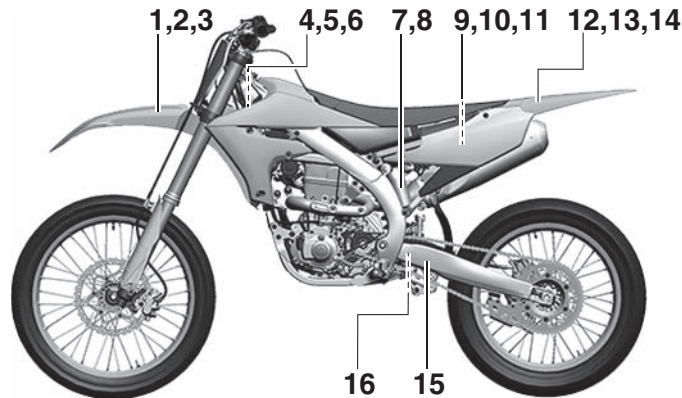


# LOCATION OF IMPORTANT LABELS

EAM20085

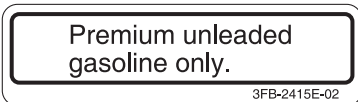
## LOCATION OF IMPORTANT LABELS

Please read the following important labels carefully before operating this vehicle.

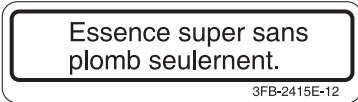


### CAN

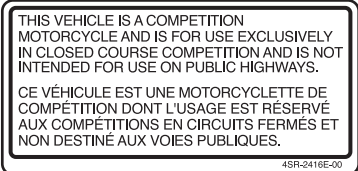
1



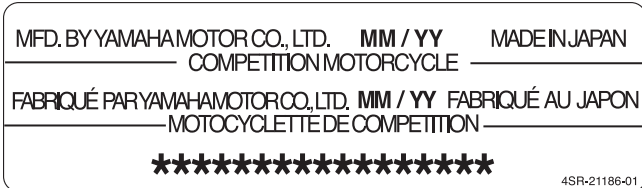
2



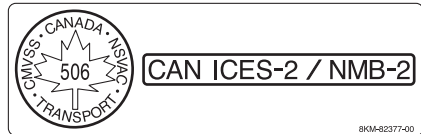
3



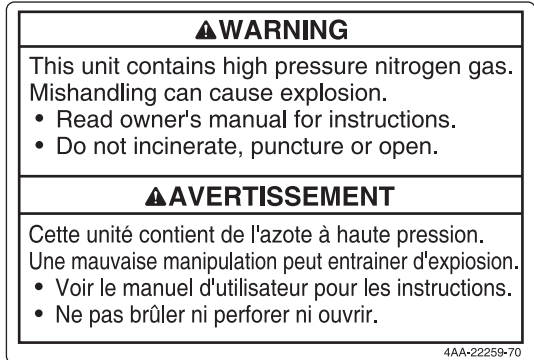
4



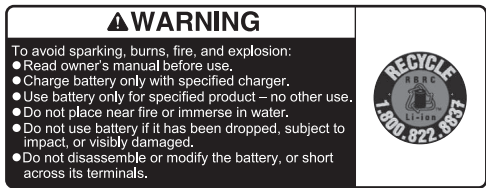
5



7



9



10



# LOCATION OF IMPORTANT LABELS

12

**⚠ WARNING**

- BEFORE YOU OPERATE THIS VEHICLE, READ THE OWNER'S MANUAL AND ALL LABELS.
- NEVER CARRY A PASSENGER. You increase your risk of losing control if you carry a passenger.
- NEVER OPERATE THIS VEHICLE ON PUBLIC ROADS. You can collide with another vehicle if you operate this vehicle on a public road.
- ALWAYS WEAR AN APPROVED MOTORCYCLE HELMET, eye protection, and protective clothing.
- EXPERIENCED RIDER ONLY.

5PA-2118K-00

15

**TIRE INFORMATION**

Cold tire normal pressure should be set as follows.  
 FRONT : 100kPa, {1.00kgf/cm<sup>2</sup>}, 15psi  
 REAR : 100kPa, {1.00kgf/cm<sup>2</sup>}, 15psi

3RV-21668-A0

13

**⚠ AVERTISSEMENT**

- LIRE LE MANUEL DU PROPRIETAIRE AINSI QUE TOUTES LES ETIQUETTES AVANT D'UTILISER CE VEHICULE.
- NE JAMAIS TRANSPORTER DE PASSAGER. La conduite avec passager augmente les risques de perte de contrôle.
- NE JAMAIS ROULER SUR DES CHEMINS PUBLICS. Vous pourriez entrer en collision avec un autre véhicule.
- TOUJOURS PORTER UN CASQUE DE MOTOCYCLISTE APPROUVE, des lunettes et des vêtements de protection.
- EXCLUSIVEMENT POUR L'USAGE D'UN CONDUCTEUR EXPERIMENTE.

5PA-2118K-10

16

**INFORMATION SUR LES PNEUS**

La pression des pneus à froid doit normalement être réglée comme suit.  
 AVANT : 100kPa, {1.00kgf/cm<sup>2</sup>}, 15psi  
 ARRIERE : 100kPa, {1.00kgf/cm<sup>2</sup>}, 15psi

3RV-21668-B0

EUR

6



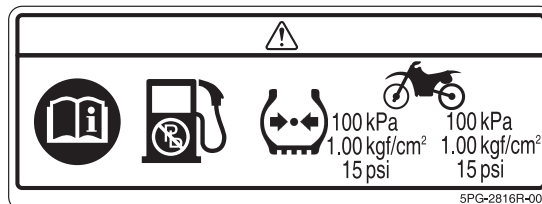
8



11



14



# LOCATION OF IMPORTANT LABELS

AUS, NZL, ZAF

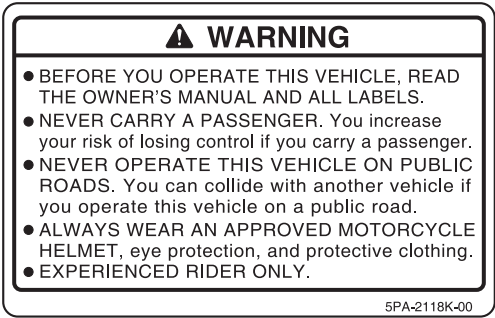
8



11



12

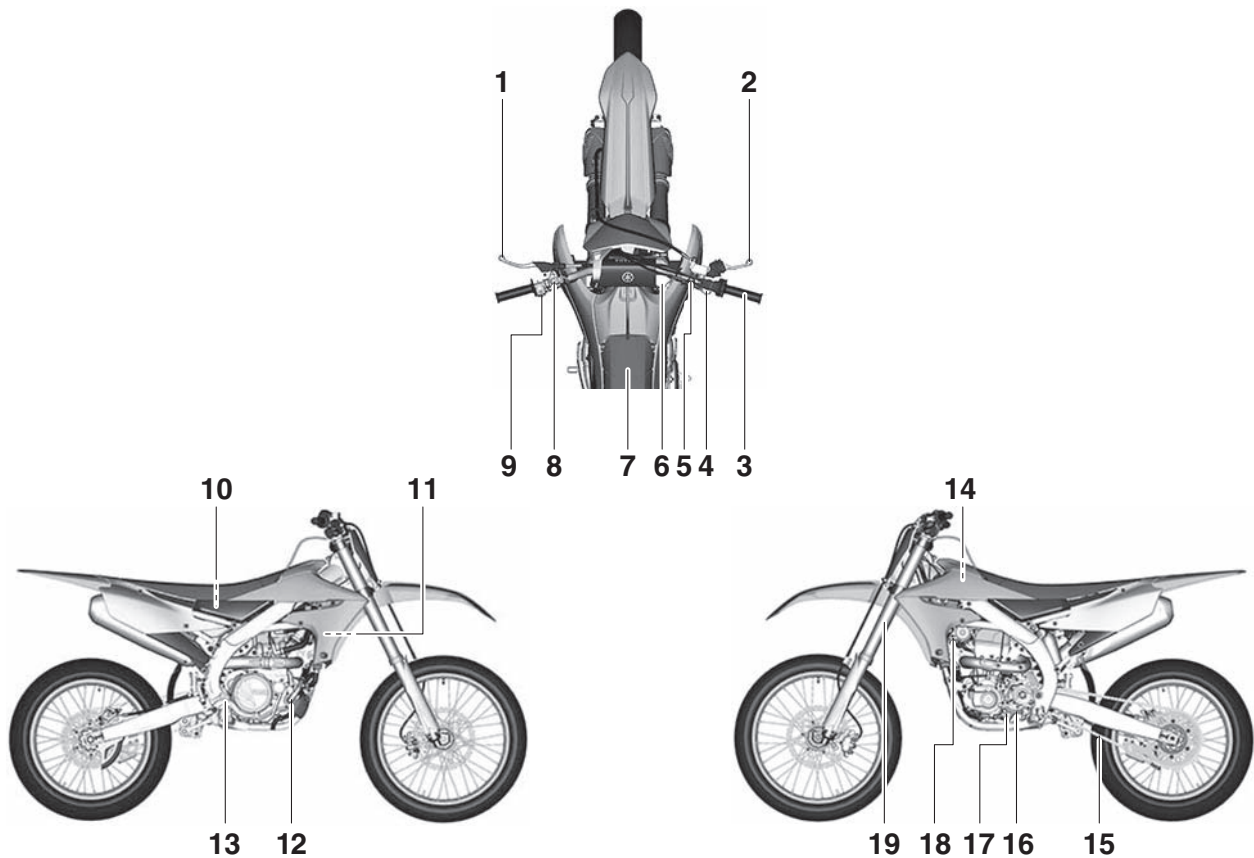


15



EAM20086

## DESCRIPTION



1. Clutch lever
2. Front brake lever
3. Throttle grip
4. Start switch
5. Launch control switch
6. Radiator cap
7. Fuel tank cap
8. Mode switch
9. Engine stop switch
10. Fuel tank

11. Radiator
12. Coolant drain bolt
13. Rear brake pedal
14. Air filter
15. Drive chain
16. Shift pedal
17. Oil level check window
18. Starter knob
19. Front fork

### TIP

Designs and specifications of the vehicle are subject to change without notice. Therefore, please note that the descriptions in this manual may be different from those for the vehicle you have purchased.

EAM20087

## IDENTIFICATION

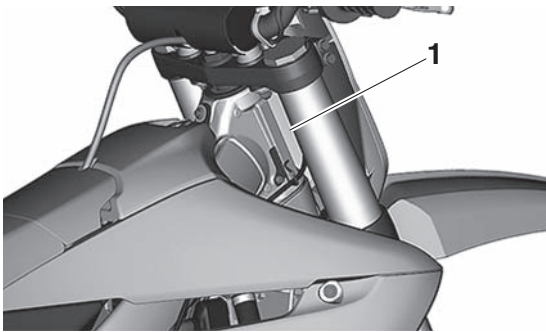
There are two significant reasons for knowing the serial number of your vehicle:

1. When ordering parts, you can give the number to your Yamaha dealer for positive identification of the model you own.
2. If your vehicle is stolen, the authorities will need the number to search for and identify your vehicle.

EAM30002

### VEHICLE IDENTIFICATION NUMBER

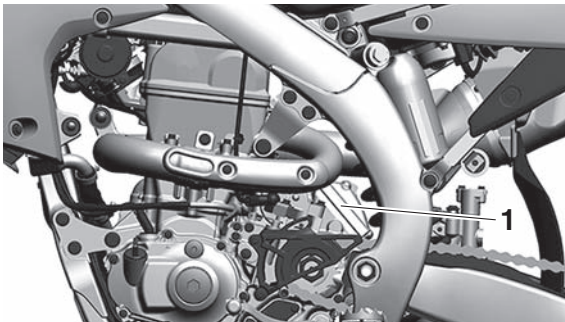
The vehicle identification number "1" is stamped into the right side of the frame.



EAM30003

### ENGINE SERIAL NUMBER

The engine serial number "1" is stamped into the elevated part of the right-side of the engine.



EAM20088

## INCLUDED PARTS

EAM30190

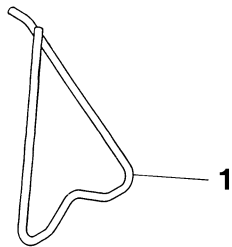
### SIDESTAND

This sidestand "1" is used to support only the machine when standing or transporting it.

EWA20260

#### **⚠ WARNING**

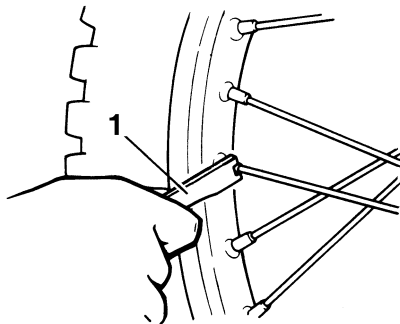
- Never apply additional force to the sidestand.
- Remove this sidestand before starting out.



EAM30005

### NIPPLE WRENCH

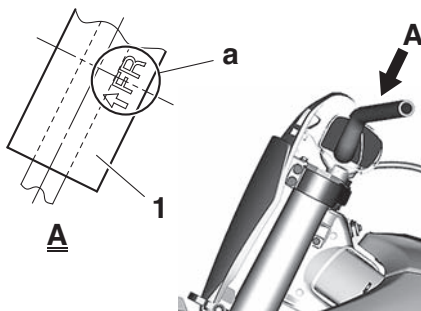
The nipple wrench "1" is used to tighten the spoke.



EAM30006

### HANDLEBAR PROTECTOR

Install the handlebar protector "1" with the mark "a" facing forward.

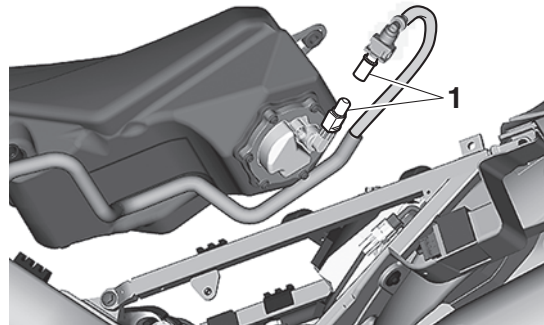


EAM30007

### FUEL HOSE JOINT COVER

The fuel hose joint covers "1" are used to pre-

vent mud, dust, and other foreign materials from entering the inside when the fuel hose is disconnected.



EAM30443

### POWER TUNER

By downloading the Power Tuner app to your smartphone and wirelessly connecting to the CCU wireless network, you can adjust various vehicle settings.

EWA20460

#### **⚠ WARNING**

- Do not operate the engine in a closed area. The exhaust gas is poisonous.
- Never let flames near the servicing area.

ECA26050

#### **NOTICE**

- This application is designed for adjusting the settings on a standard vehicle. In case the engine specifications (muffler, compression ratio, etc.) have been changed, the performance may not match to the actual settings.
- Do not run the engine with the smartphone carried with you. Otherwise, the smartphone could be damaged.

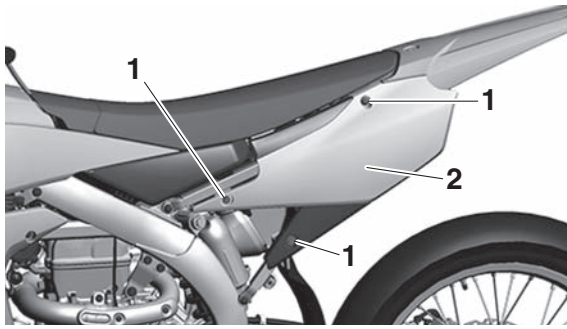
#### **TIP**

- Download the Power Tuner app from the Google© or Apple© store.
- For details about handling the smartphone, read the owner's manual of the smartphone.

**Before connecting to the CCU wireless network (in case of initial use of the Power Tuner app)**

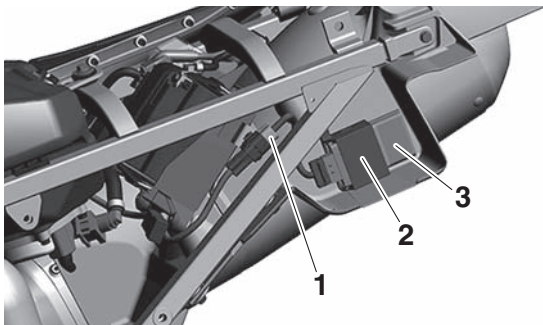
1. Remove the bolts and side cover (left).

## INCLUDED PARTS

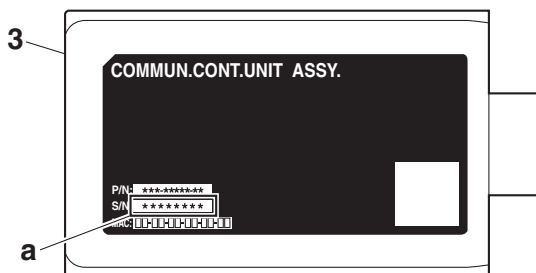


1. Bolt
2. Side cover (left)

2. Remove the CCU and record the CCU serial number.



1. CCU coupler
2. Holder
3. CCU (Communication Control Unit)



3. CCU (Communication Control Unit)
- a. CCU serial number

3. Install the removed CCU and side cover (left).
- ### Connecting to the CCU wireless network

ECA26060

#### NOTICE

The CCU (Communication Control Unit) uses weak radio waves. The CCU may not work in the following situations.

- The CCU is placed in a location exposed to strong radio waves or other electromagnetic noise

- There are facilities nearby that are emitting strong radio waves (TV or radio towers, power plants, broadcasting stations, airports, etc.)
- You are carrying or using communication equipment such as radios or mobile phones in close proximity of the CCU
- The CCU is in contact with or covered by a metallic object
- Other vehicles equipped with a CCU are nearby

**In such situations, move the CCU to another location and perform the operation again.**

1. Turn on the smartphone.
2. For two minutes after the start switch is pressed or while the engine is running (the CCU is activated), input the CCU serial number into your smartphone and establish a wireless connection.
3. Activate the Power Tuner app.

#### TIP

If the CCU wireless network cannot be detected, operate the start switch again.



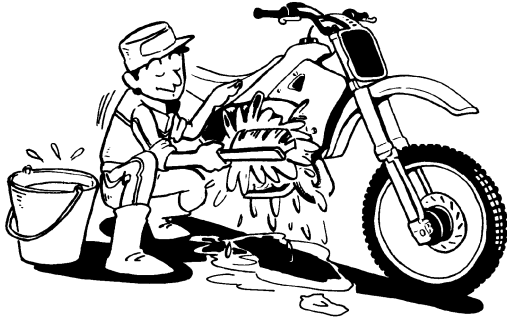
EAM20089

## IMPORTANT INFORMATION

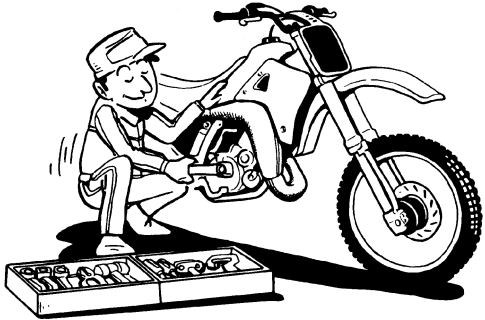
EAM30009

### PREPARATION FOR REMOVAL AND DISASSEMBLY

1. Before the jobs, completely remove mud, dust, and the like in order to prevent the entry of them into the inside during the jobs. Refer to "CARE" on page 1-31.



2. Use proper special tools and equipment. Refer to "SPECIAL TOOLS" on page 1-17.



3. During disassembly, check and measure the required parts, and make a record of them so that you may refer to the record when installing them. Moreover, arrange gears, cylinders, pistons, and other parts for each section so as not to confuse or lose them.



4. During disassembly, clean each of the parts, and store them in trays for each section.
5. Flammable. Keep servicing areas away from any source of fire.
6. During servicing, take special care not to re-

ceive an injury or a burn on the engine, the exhaust pipe, the silencer, or the like.

7. If coolant is left adhered to the chassis, paint and plating will be damaged. Therefore, rinse it out with water in good time.

EWA18970

### **WARNING**

**Coolant is potentially harmful and should be handled with special care.**

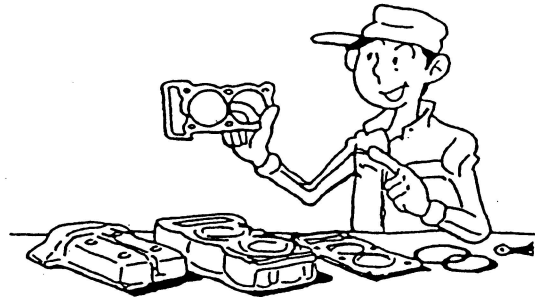
- If it enters your eyes, wash it away with water enough and then get medical attention
- If it splashes on your skin or clothes, quickly wash it away with water and then with soapy water.
- If it is swallowed, immediately induce vomiting and get medical attention.

EAM30010

### REPLACEMENT PARTS

Make sure that the parts and grease or oil to be used for repair of the vehicle, including periodic replacement parts, are new YAMAHA genuine parts and recommended parts.

Do not use any used parts, because these may not be genuine though they have similar appearances or because the quality may be changed by aging.

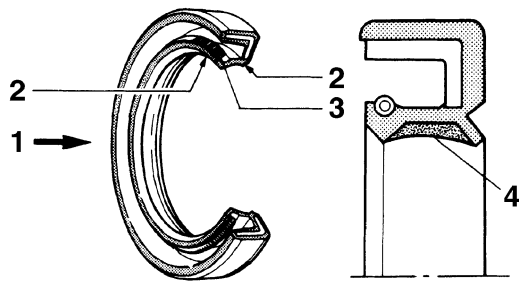


EAM30011

### GASKETS, OIL SEALS AND O-RINGS

1. When overhauling the engine, replace all gaskets and O-rings. All gasket surfaces, oil seal lips, and O-rings must be cleaned so that there may be no dust on them.
2. During assembly, always apply proper oil to bearings and proper grease to oil seal lips before installation.



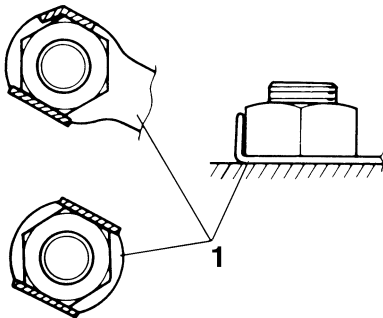


- 1. Oil
- 2. Lip
- 3. Spring
- 4. Grease

EAM30012

## LOCK WASHERS/PLATES AND COTTER PINS

After removal, replace lock washers/plates "1" and cotter pins with new ones. After the bolt or nut has been tightened to specification, firmly bend the lock tabs along a flat of the bolt or nut.



EAM30013

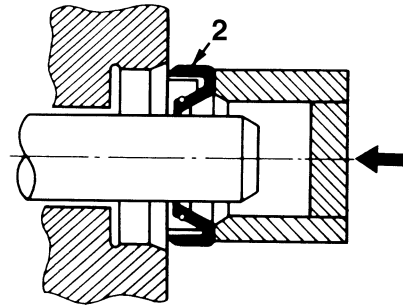
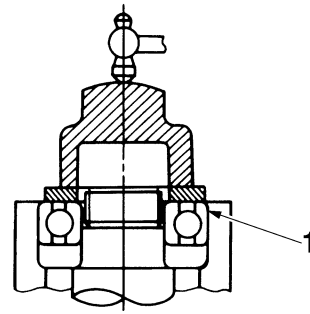
## BEARINGS AND OIL SEALS

Install bearings "1" and oil seals "2" with their manufacturer's marks or size symbols facing outward. During installation of an oil seal, make sure that its main lip faces the oil chamber (the target to be sealed). Before installation, always apply a light coat of grease to the oil seal lip.

ECA13300

### NOTICE

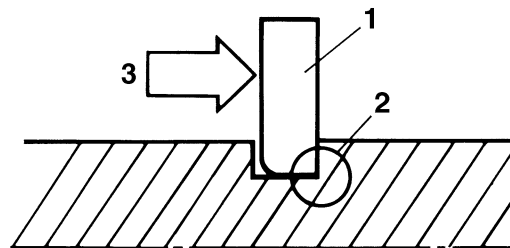
**Do not spin the bearing with compressed air because this will damage the bearing surfaces.**



EAM30014

## CIRCLIPS

When assembling parts, always use new circlips. During installation of a circlip, make sure that the edge "2" of the circlip "1" is positioned opposite to the force "3" that the circlip receives. Install the circlip with its end aligned with the center of the spline, without opening the circlip more than necessary.



EAM20120

## BASIC SERVICE INFORMATION

EAM30181

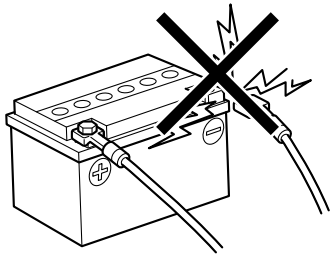
### ELECTRICAL SYSTEM

#### Electrical parts handling

ECA16600

#### NOTICE

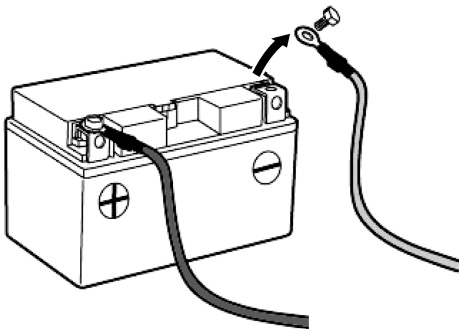
Never disconnect a battery lead while the engine is running; otherwise, the electrical components could be damaged.



ECA16751

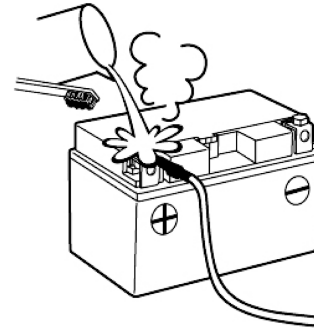
#### NOTICE

When disconnecting the battery leads from the battery, be sure to disconnect the negative battery lead first, then the positive battery lead. If the positive battery lead is disconnected first and a tool or similar item contacts the vehicle, a spark could be generated, which is extremely dangerous.



#### TIP

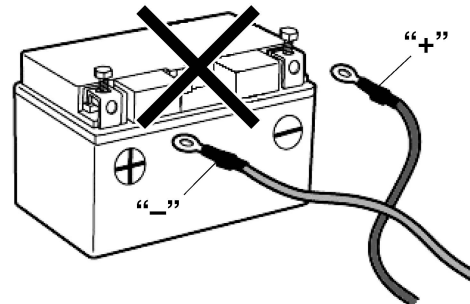
If a battery lead is difficult to disconnect due to rust on the battery terminal, remove the rust using hot water.



ECA16760

#### NOTICE

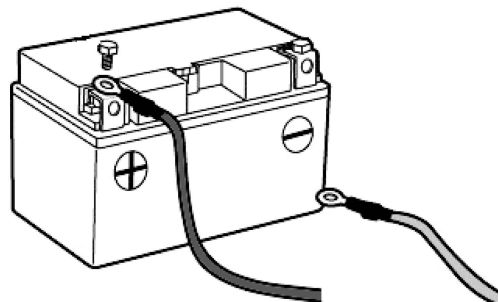
Be sure to connect the battery leads to the correct battery terminals. Reversing the battery lead connections could damage the electrical components.



ECA16771

#### NOTICE

When connecting the battery leads to the battery, be sure to connect the positive battery lead first, then the negative battery lead. If the negative battery lead is connected first and a tool or similar item contacts the vehicle while the positive battery lead is being connected, a spark could be generated, which is extremely dangerous.

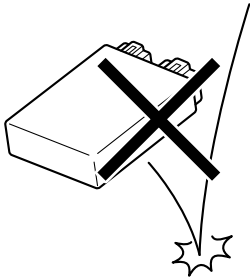


ECA16620

#### NOTICE

Handle electrical components with special care, and do not subject them to strong shocks.

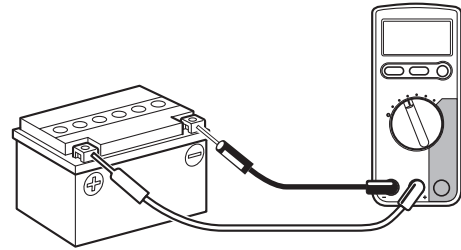
# BASIC SERVICE INFORMATION



ECA16630

## NOTICE

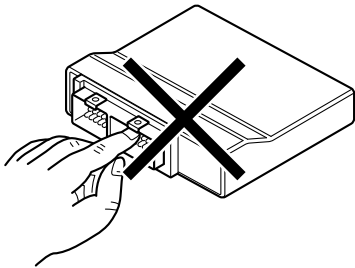
Electrical components are very sensitive to and can be damaged by static electricity. Therefore, never touch the terminals and be sure to keep the contacts clean.



ECA14371

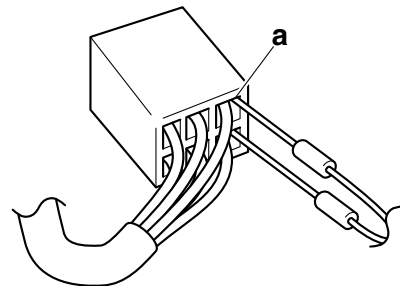
## NOTICE

Never insert the tester probes into the coupler terminal slots. Always insert the probes from the opposite end "a" of the coupler, taking care not to loosen or damage the leads.



## TIP

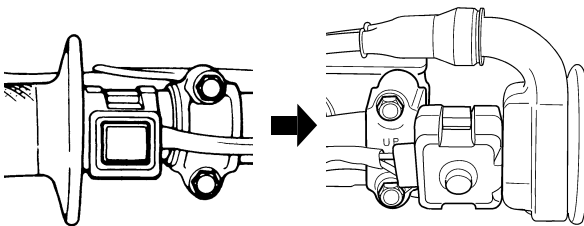
Push and hold the engine stop switch to turn off the multi-function display when resetting the ECU (Engine Control Unit). Disconnect the starter motor lead of the starter relay, and then push the starter switch. Be sure to wait for five seconds or longer before pushing the start switch after the multi-function display goes off.



ECA16640

## NOTICE

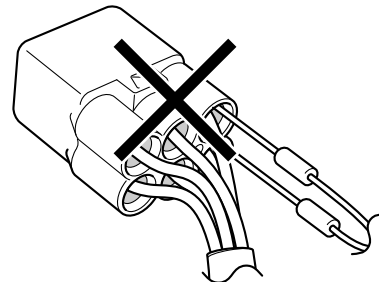
For waterproof couplers, never insert the tester probes directly into the coupler. When performing any checks using a waterproof coupler, use the specified test harness or a suitable commercially available test harness.



## Checking the electrical system

### TIP

Before checking the electrical system, make sure that the battery voltage is at least 12 V.



## Checking the connections

Check the leads, couplers, and connectors for stains, rust, moisture, etc.

1. Disconnect:

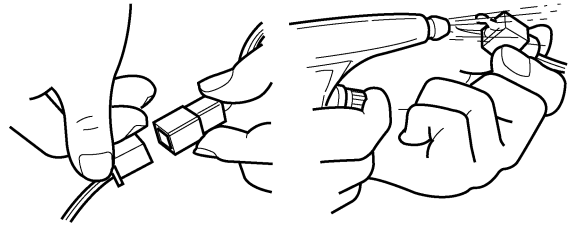
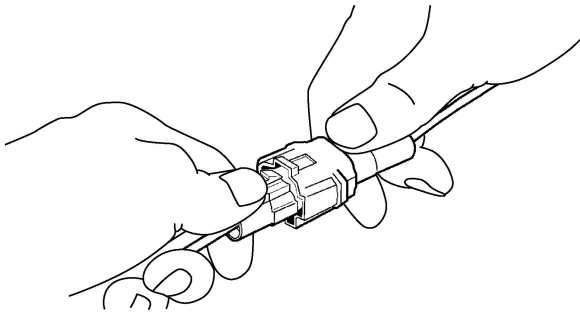
- Lead
- Coupler
- Connector

# BASIC SERVICE INFORMATION

ECA16780

## NOTICE

- When disconnecting a coupler, release the coupler lock, hold both sections of the coupler securely, and then disconnect the coupler.
- There are many types of coupler locks; therefore, be sure to check the type of coupler lock before disconnecting the coupler.



### 3. Check:

- All connections  
Loose connection → Connect properly.

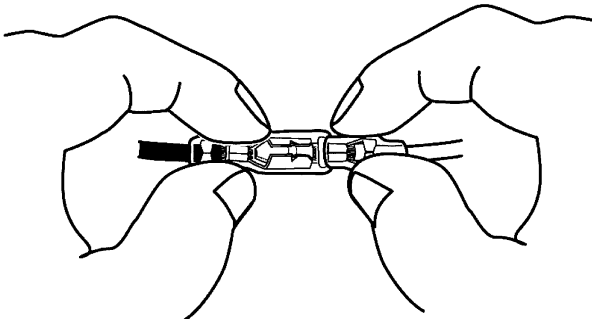
### TIP

- If the pin "1" on the terminal is flattened, bend it up.
- After disassembling or assembling a coupler, pull on the leads to make sure that they are installed securely.

ECA16790

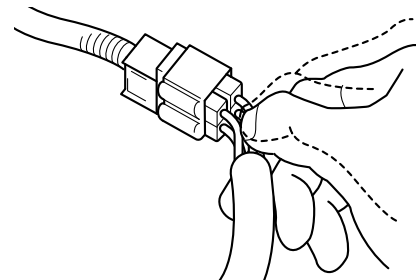
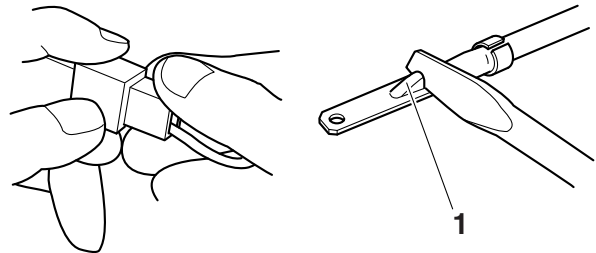
## NOTICE

When disconnecting a connector, do not pull the leads. Hold both sections of the connector securely, and then disconnect the connector.



### 2. Check:

- Lead
  - Coupler
  - Connector
- Moisture → Dry with compressed air.  
Rust/stains → Connect and disconnect several times.



### 4. Connect:

- Lead
- Coupler
- Connector

### TIP

- When connecting a coupler or connector, make sure that both terminals are connected securely.
- Make sure all connections are tight.

Thank you so much for reading.  
Please click the “Buy Now!”  
button below to download the  
complete manual.



After you pay.

You can download the most  
perfect and complete manual in  
the world immediately.

Our support email:

[ebooklibonline@outlook.com](mailto:ebooklibonline@outlook.com)