YAMAHA

YZF-R1P
YZF-R1PC

ASSEMBLY MANUAL
SYMBOLS USED IN ASSEMBLY MANUAL

In order to simplify descriptions in assembly manuals, the following symbols are used:

- Coat with lithium soap base grease.
- **Tighten to 10 Nm.**
  \[(10 \text{ Nm} = 1.0 \text{ m} \cdot \text{kg}, 7.2 \text{ ft} \cdot \text{lb})\]
- Front ward of the motorcycle.
- **Provide a clearance.**
- **Install so that the arrow mark faces upward.**
- Apply a motor oil.
- Made of rubber or plastics.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ref No. (indicating the order or operations.)</td>
<td>Part name</td>
<td>Quantity of parts per motorcycle</td>
<td>Place where parts are held</td>
<td>Size or material of parts</td>
</tr>
</tbody>
</table>

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

- **CAUTION:**
  A **CAUTION** indicates special precautions that must be taken to avoid damage to the motorcycle.

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

To assemble the motorcycle correctly, supplies and working space are required.

Supplies oils, greases, shop rags.

Workshop

The workshop where the motorcycle is assembled should be clean and large. The floor should be level.

Self-protection

Protect your eyes with suitable safety spectacles or safety goggles when using compressed air, when grinding or when doing any operation which may cause particles to fly off.

Protect hands and feet by wearing safety gloves or doing.

SYMBOLS USED ON CRATE CARTON

- Contents of the transport package are fragile therefore it shall be handled with care.
- Indicates correct upright position of the transport package.
- Transport package shall be kept away from rain.
- Insertion of the lift arm from this side is prohibited.
- Lift arm inserting position.
UNPACKING
1. Remove the frame cover ①.

NOTE: ____________________________
To remove the frame cover, cut the vinyl bands around the cover using a cutter or scissors.

2. Remove the bolts ② (upper bracket).

3. Remove the bolt ③ (front tire).

4. Remove the packing frames ④ (upward and sideways).

NOTE: ____________________________
Remove the bolts while holding frame.

NOTE: ____________________________
Before starting the assembly, check for damaged or missing parts. The parts are contained in the cartan and the motorcycle for damage, scratches and other defects.
PARTS LOCATION

① Carton box
**Carton box**

- **Vinyl bag 1**
  - Plugs (handle crown)
  - Screw, washer and special nuts (windscreen)
  - Bolt (front master cylinder)

- **Bolt** (handle crown and handlebar)
- **Nut** (rear view mirror)
- **Front reflector**

- **Nut** (front reflector)

- **Owner's manual**
- **Rear view mirrors**
- **Windscreen**
SETUP PROCEDURES

2 5 4 1 3 6
1. Handlebar

1. Reservoir tank (brake) 1 V
2. Hexagon socket bolt 1 V \(d = 6\ (0.24), \ \ell = 12\ (0.47)\)
3. Crown nut 1 V
4. Hexagon socket bolt 1 V \(d = 6\ (0.24), \ \ell = 25\ (0.98)\)
5. Cap 2 V
6. Hexagon socket bolt 1 V \(d = 8\ (0.31), \ \ell = 30\ (1.18)\)

A: Tighten the crown nut to specified torque.

Tightening torque:
115 Nm (11.5 m • kg, 85.0 ft • lb)

B: Tighten the bolt to specified torque.

C: Tighten the bolt to specified torque.

Tightening torque:
13 Nm (1.3 m • kg, 9.4 ft • lb)

2. Front reflector

1. Reflector bracket 2 V
2. Reflector 2 V
3. Nut 2 V \(d = 5\ (0.20)\)
4. Washer 4 \(d = 10\ (0.39)\)
5. Caliper bolt 4 \(d = 10\ (0.39), \ \ell = 30\ (1.18)\)

A: Tighten the screws to specified torque.

Tightening torque:
40 Nm (4.0 m • kg, 29 ft • lb)

3. Clutch cable

1. Clutch cable 1 V

A: Check the clutch lever for smooth action.

**CAUTION:**

Proper cable routing is essential to assure safe motorcycle operation.
Refer to “CABLE ROUTING”.
4. Rear view mirror

CAUTION:
The windscreen is made of an acrylate resin. Take care so that it is not scratched.

5. Windscreen

NOTE:
Refer to “ADJUSTMENTS AND PREDELIVERY SERVICE”.

6. Battery

NOTE:
Refer to “CABLE ROUTING”.

A: Before installing the battery, charge the battery.

B: First, connect the red color lead to the positive terminal. Then connect the black color lead to the negative terminal.
CAUTION:
Proper cable and lead routing is essential to insure safe machine operation.

1. Clutch cable
   A. Pass the throttle cable in front of the brake hose.
   B. Pass the clutch cable behind the front fork.
   C. In this area, the handlebar switch lead (right side) should not be in front of the throttle cable. It should not cross the throttle cable around the guide-air.
   D. In this area, pass the handlebar switch right side lead behind of the throttle cable.
ADJUSTMENTS AND PREDELIVERY SERVICE
A. CHECKING AND CHARGING THE BATTERY

NOTE: The battery used in this motorcycles is a new version maintenance free “Valve Regulated Lead Acid Battery”, it has been pre-filled with electrolyte at the factory so there is no need for you to add any fluid at any time.

1. Check:
   Using a digital voltmeter, the state of a discharged MF battery can be checked by measuring open-circuit voltage (the voltage measured with the positive and negative terminals being disconnected).

<table>
<thead>
<tr>
<th>Open-circuit voltage</th>
<th>Charging time</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.8 V or higher</td>
<td>Charging is not necessary</td>
</tr>
</tbody>
</table>

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B. CHECKING THE TIRE PRESSURE

1. Measure:
   ● tire pressure
   Out of specification → Adjust.

⚠️ WARNING
- Tire inflation pressure should be checked and adjusted when the temperature of the tire equals the ambient air temperature. Tire inflation pressure must be adjusted according to total weight of cargo, rider, and accessories (fairing, saddlebags, etc. if approved for this model), and vehicle speed.
- Proper loading of your motorcycle is important for the handling, braking and other performance and safety characteristics of your motorcycle. Do not carry loosely packed items that can shift. Securely pack your heaviest items close to the center of the motorcycle, and distribute the weight evenly from side to side. Properly adjust the suspension for your load, and check the condition and pressure of your tires.

NEVER OVERLOAD YOUR MOTORCYCLE.
Make sure the total weight of the cargo, rider, and accessories (fairing, saddlebags, etc. if approved for this model) does not exceed the maximum load of the motorcycle. Operation of an overload motorcycle could cause tire damage, an accident, or even injury.

| Basic weight with oil and a full fuel tank | for USA | 193 kg (426 lb) |
|                                          | for California | 194 kg (428 lb) |

| Maximum load                             | for USA | 202 kg (445 lb) |
|                                         | for California | 201 kg (443 lb) |

<table>
<thead>
<tr>
<th>Cold tire pressure</th>
<th>Front</th>
<th>Rear</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 90 kg</td>
<td>250 kPa</td>
<td>250 kPa</td>
</tr>
<tr>
<td>(198 lb) load*</td>
<td>(2.5 kgf/cm², 36 psi)</td>
<td>(2.5 kgf/cm², 36 psi)</td>
</tr>
<tr>
<td>90 kg (198 lb)</td>
<td>250 kPa</td>
<td>290 kPa</td>
</tr>
<tr>
<td>maximum load*</td>
<td>(2.5 kgf/cm², 36 psi)</td>
<td>(2.9 kgf/cm², 42 psi)</td>
</tr>
<tr>
<td>High speed riding</td>
<td>250 kPa</td>
<td>250 kPa</td>
</tr>
<tr>
<td></td>
<td>(2.5 kgf/cm², 36 psi)</td>
<td>(2.5 kgf/cm², 36 psi)</td>
</tr>
</tbody>
</table>

*: total of cargo, rider, passenger and accessories
C. CHECKING THE ENGINE OIL LEVEL
1. Stand the motorcycle on a level surface.

NOTE:
• Place the motorcycle on a suitable stand.
• Make sure that the motorcycle is upright.

2. Let the engine idle for a few minutes.
3. Check:
   • engine oil level
     The engine oil level should be between the minimum level marks \( \mathcal{A} \) and maximum level marks \( \mathcal{B} \).
     Below the minimum level mark → Add the recommended engine oil to the proper level.

**Recommended engine oil**
- At 5 °C (40 °F) or higher \( \mathcal{A} \):
  - Yamalube 4(20W40) or SAE20W40 motor oil (NON-FRICTION MODIFIED)
- At 15 °C (60 °F) or below \( \mathcal{B} \):
  - Yamalube 4(10W30) or SAE10W30 motor oil (NON-FRICTION MODIFIED)

**Quantity**
- Without oil filter cartridge replacement
  - 2.9 L (2.6 Imp qt, 3.1 US qt)

D. CHECKING THE COOLANT LEVEL
1. Stand the motorcycle on a level surface.

NOTE:
• Place the motorcycle on a suitable stand.
• Make sure that the motorcycle is upright.

2. Check:
   • coolant level
     The coolant level should be between the maximum level marks \( \mathcal{A} \) and minimum level marks \( \mathcal{B} \).
     Below the minimum level mark → Add the recommended coolant to the proper level.

**Recommended coolant**
- At 5 °C (40 °F) or higher \( \mathcal{A} \):
  - Yamalube 4(20W40) or SAE20W40 coolant
- At 15 °C (60 °F) or below \( \mathcal{B} \):
  - Yamalube 4(10W30) or SAE10W30 coolant

**CAUTION:**
- Adding water instead of coolant lowers the antifreeze content of the coolant. If water is used instead of coolant, check and correct the antifreeze concentration of the coolant.
- Use only distilled water. Soft water may be used if distilled water is not available.

3. Start the engine, warm it up for several minutes, and then turn it off.
4. Check:
   • coolant level

NOTE:
Before checking the coolant level, wait a few minutes until it settled.
E. ADJUSTING THE ENGINE IDLING SPEED

NOTE:
Prior to adjusting the engine idling speed, the throttle body synchronization should be adjusted properly, the air filter should be clean, and the engine should have adequate compression.

1. Start the engine and let it warm up for several minutes.
2. Attach:
   • digital tachometer
     (to the spark plug lead of cylinder #1)
3. Measure:
   • engine idling speed
     Out of specification → Adjust.

Engine idling speed
1,000 – 1,100 r/min

F. ADJUSTING THE THROTTLE CABLE FREE PLAY

NOTE:
Prior to adjusting the throttle cable free play, the engine idling speed should be adjusted.

1. Measure:
   • throttle cable free play
     Out of specification → Adjust.

   Throttle cable free play (at the flange of the throttle grip)
   3 ~ 5 mm (0.12 ~ 0.20 in)

2. Adjust:
   a. Loosen the locknut.
   b. Turn the adjusting nut in direction a or b until the specified throttle cable free play is obtained.
   c. Tighten the locknut.

WARNING
After adjusting the throttle cable free play, turn the handlebar to the right and to the left to ensure that this does not cause the engine idling speed to change.

G. ADJUSTING THE FRONT BRAKE

1. Adjust:
   • brake lever position
     (distance ② from the throttle grip to the brake lever)

   a. While pushing the brake lever forward, turn the adjusting dial ① until the brake lever is in the desired position.

NOTE:
Be sure to align the setting on the adjusting dial with the arrow mark ② on the brake lever holder.

<table>
<thead>
<tr>
<th>Position</th>
<th>Distance ②</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>is the largest.</td>
</tr>
<tr>
<td>#5</td>
<td>is the smallest.</td>
</tr>
</tbody>
</table>

WARNING
After adjusting the brake lever position, make sure that the pin on the brake lever holder is firmly inserted in the hole in the adjusting dial.

CAUTION:
After adjusting the brake lever position, make sure that there is no brake drag.

WARNING
A soft or spongy feeling in the brake lever can indicate the presence of air in the brake system. Before the vehicle is operated, the air must be removed by bleeding the brake system. Air in the brake system will considerably reduce braking performance and could result in loss of control and possibly an accident. Therefore, check and, if necessary, bleed the brake system.

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H. ADJUSTING THE REAR BRAKE

1. Measure:
   - brake pedal position
     (distance a from the top of the rider footrest to the top of the brake pedal)
   Out of specification → Adjust.

   | Brake pedal position (below the bottom of the rider footrest bracket) |
   | 38 ~ 42 mm (1.50 ~ 1.65 in) |

2. Adjust:
   - brake pedal position
   a. Loosen the locknut 1.
   b. Turn the adjusting bolt 2 in direction a or b until the specified brake pedal position is obtained.

   | Direction a | Brake pedal is raised. |
   | Direction b | Brake pedal is lowered. |

   WARNING
   After adjusting the brake pedal position, check that the end of the adjusting bolt 2 is visible through the hole d.

   c. Tighten the locknut 1 to specification.

   Locknut
   16 Nm (1.6 m • kg, 12 ft • lb)

   WARNING
   A soft or spongy feeling in the brake pedal can indicate the presence of air in the brake system. Before the vehicle is operated, the air must be removed by bleeding the brake system. Air in the brake system will considerably reduce braking performance and could result in loss of control and possibly an accident. Therefore, check and, if necessary, bleed the brake system.

   CAUTION:
   After adjusting the brake pedal position, make sure that there is no brake drag.

I. CHECKING THE BRAKE FLUID LEVEL

1. Stand the motorcycle on a level surface.

   NOTE:
   - Place the motorcycle on a suitable stand.
   - Make sure that the motorcycle is upright.

2. Check:
   - brake fluid level
     Below the minimum level mark a → Add the recommended brake fluid to the proper level.

   Recommended brake fluid
   DOT 4

   A Front brake
   R Rear brake

   WARNING
   - Use only the designated brake fluid. Other brake fluids may cause the rubber seals to deteriorate, causing leakage and poor brake performance.
   - Refill with the same type of brake fluid that is already in the system. Mixing brake fluids may result in a harmful chemical reaction, leading to poor brake performance.
   - When refilling, be careful that water does not enter the reservoir. Water will significantly lower the boiling point of the brake fluid and could cause vapor lock.

   CAUTION:
   Brake fluid may damage painted surfaces and plastic parts. Therefore, always clean up any split brake fluid immediately.

   NOTE:
   In order to ensure a correct reading of the brake fluid level, make sure that the top of the reservoir is horizontal.
J. BLEEDING THE HYDRAULIC BRAKE SYSTEM

⚠️ WARNING ⚠️
Bleed the hydraulic brake system whenever:
• the system was disassembled,
• a brake hose was loosened or removed,
• the brake fluid level is very low,
• brake operation is faulty.

NOTE:
• Be careful not to spill any brake fluid or allow the brake fluid reservoir to overflow.
• When bleeding the hydraulic brake system, make sure that there is always enough brake fluid before applying the brake. Ignoring this precaution could allow air to enter the hydraulic brake system, considerably lengthening the bleeding procedure.
• If bleeding is difficult, it may be necessary to let the brake fluid settle for a few hours. Repeat the bleeding procedure when the tiny bubbles in the hose have disappeared.

1. Bleed:
   • hydraulic brake system

   a. Add the recommended brake fluid to the proper level.
   b. Install the brake fluid reservoir diaphragm.

K. ADJUSTING THE CLUTCH CABLE FREE PLAY
1. Check:
   • clutch cable free play
     Out of specification → Adjust.

   | Clutch cable free play (at the end of the clutch lever) |
   | 10 – 15 mm (0.39 – 0.59 in) |

2. Adjust:
   • clutch cable free play

   a. Turn the adjusting dial ① in direction ③ or ④ until the specified clutch cable free play is obtained.
L. ADJUSTING THE FRONT FORK LEGS

The following procedure applies to both of the front fork legs.

**WARNING**

- Always adjust both front fork legs evenly. Uneven adjustment can result in poor handling and loss of stability.
- Securely support the motorcycle so that there is no danger of it falling over.

**CAUTION:**

- Grooves are provided to indicate the adjustment position.
- Never go beyond the maximum or minimum adjustment positions.

2. Adjust:

- **Spring preload**

  a. Turn the adjusting bolt 1 in direction a or b.

  - Direction a: Spring pre-load is increased (suspension is harder).
  - Direction b: Spring pre-load is decreased (suspension is softer).

  Adjuster position:
  - Standard: 6
  - Minimum: 8
  - Maximum: 1

- **Rebound damping**

  Never go beyond the maximum or minimum adjustment positions.

  1. Adjust:

     a. Turn the adjusting screw 2 in direction a or b.

     | Direction | Rebound damping |
     |-----------|-----------------|
     | Direction a | Increased (suspension is harder). |
     | Direction b | Decreased (suspension is softer). |

     - Adjuster position:
       - Standard: 13 clicks out*
       - Minimum: 26 clicks out*
       - Maximum: 1 click out*

     *: from the fully turned-in position

- **Compression damping**

  Never go beyond the maximum or minimum adjustment positions.

  1. Adjust:

     a. Turn the adjusting screw 3 in direction a or b.

     | Direction | Compression damping |
     |-----------|---------------------|
     | Direction a | Increased (suspension is harder). |
     | Direction b | Decreased (suspension is softer). |

     - Adjuster position:
       - Standard: 13 clicks out*
       - Minimum: 20 clicks out*
       - Maximum: 1 click out*

     *: from the fully turned-in position
M. ADJUSTING THE REAR SHOCK ABSORBER ASSEMBLY

**WARNING**
Securely support the motorcycle so that there is no danger of it falling over.

**CAUTION:**
Never go beyond the maximum or minimum adjustment positions.

1. Adjust:
   - spring preload

**NOTE:**
Adjust the spring preload with the special wrench included in the owner's tool kit.

Spring preload

1. Adjust:
   - rebound damping

**CAUTION:**
Never go beyond the maximum or minimum adjustment positions.

- a. Turn the adjusting ring ① in direction ③ or ④.
- b. Align the desired position on the adjusting ring with the stopper ②.

Adjuster position:
- Standard: 4
- Minimum: 1
- Maximum: 9

Rebound damping

1. Adjust:
   - compression damping

**CAUTION:**
Never go beyond the maximum or minimum adjustment positions.

- a. Turn the adjusting screw ① in direction ③ or ④.

Adjuster position:
- Standard: 15 clicks out*
- Minimum: 20 clicks out*
- Maximum: 1 click out*

*: from the fully turned-in position

Compression damping

- a. Turn the adjusting screw ① in direction ③ or ④.

Adjuster position:
- Standard: 15 clicks out*
- Minimum: 20 clicks out*
- Maximum: 1 click out*

*: from the fully turned-in position
N. ADJUSTING THE DRIVE CHAIN SLACK

NOTE:
The drive chain slack must be checked at the tightest point on the chain.

CAUTION:
A drive chain that is too tight will overload the engine and other vital parts, and one that is too loose can skip and damage the swingarm or cause an accident. Therefore, keep the drive chain slack within the specified limits.

1. Stand the motorcycle on a level surface.

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

NOTE:
Both wheels should be on the ground without a rider on the motorcycle.

2. Rotate the rear wheel several times and check the drive chain to locate its tightest point.
3. Measure:
   - drive chain slack
     Out of specification → Adjust.

Drive chain slack
40 ~ 50 mm (1.57 ~ 1.97 in)

4. Loosen:
   - wheel axle nut
5. Adjust:
   - drive chain slack

A. Loosen both locknuts.
B. Turn both adjusting bolts in direction a or b until the specified drive chain slack is obtained.

| Direction  | Drive chain is tightened. |
| Direction  | Drive chain is loosened.  |

NOTE:
• To maintain the proper wheel alignment, adjust both sides evenly.
• Push the rear wheel forward to make sure that there is no clearance between the wheel axle plates and the end of the adjusting bolts.

C. Tighten the wheel axle nut to specification.

Wheel axle nut
150 Nm (15 m • kg, 108 ft • lb)

D. Tighten the locknuts to specification.

Locknut
16 Nm (1.6 m • kg, 12 ft • lb)

O. ADJUSTING THE REAR BRAKE LIGHT SWITCH

NOTE:
The rear brake light switch is operated by movement of the brake pedal.
The rear brake light switch is properly adjusted when the brake light comes on just before the braking effect starts.

1. Check:
   - rear brake light operation timing
     Incorrect → Adjust.

Q. ADJUSTING THE HEADLIGHT BEAMS

The following procedure applies to both of the headlights.

1. Adjust:
   - headlight beam (vertically)

A. Turn the adjusting screw in direction a or b.

| Direction  | Headlight beam is raised. |
| Direction  | Headlight beam is lowered. |

2. Adjust:
   - headlight beam (horizontally)

A. Turn the adjusting screw in direction a or b.

| Direction  | Headlight beam moves to the right. |
| Direction  | Headlight beam moves to the left. |
Q. ADJUSTING THE DIGITAL CLOCK

Turn the key to “ON”.

To change the display to the clock mode, push the “SELECT” button ① for at least one second.
To change the display back to the prior mode, push the “SELECT” button ⑧.

1. Adjust:
   ● digital clock ①

   a. Push the “SELECT” button ② and “RESET” button ③ together for at least two seconds.
   b. When the hour digits start flashing, push the “RESET” button ③ to set the hours.
   c. Push the “SELECT” button ⑧, and the minute digits will start flashing.
   d. Push the “RESET” button ③ to set the minutes.
   e. Push the “SELECT” button ⑧ and then release it to start the clock.

   ▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲^
## APPENDICES

### SERVICE DATA

<table>
<thead>
<tr>
<th>YZF-R1P/YZF-R1PC</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Engine idling speed:</strong></td>
<td>1,000 ~ 1,100 r/min</td>
</tr>
<tr>
<td><strong>Spark plug:</strong></td>
<td></td>
</tr>
<tr>
<td>Type</td>
<td>CR9EIA9 (NGK), IU27D (DENSO)</td>
</tr>
<tr>
<td>Gap</td>
<td>0.8 ~ 0.9 mm (0.031 ~ 0.035 in)</td>
</tr>
<tr>
<td><strong>Fuel:</strong></td>
<td></td>
</tr>
<tr>
<td>Recommended fuel</td>
<td>Premium unleaded gasoline only</td>
</tr>
<tr>
<td>Fuel tank capacity</td>
<td>17 L (3.74 Imp gal, 4.49 US gal)</td>
</tr>
<tr>
<td><strong>Valve clearance (cold):</strong></td>
<td></td>
</tr>
<tr>
<td>IN</td>
<td>0.11 ~ 0.20 mm (0.0043 ~ 0.0079 in)</td>
</tr>
<tr>
<td>EX</td>
<td>0.21 ~ 0.27 mm (0.0083 ~ 0.0106 in)</td>
</tr>
<tr>
<td><strong>Maximum load</strong>:</td>
<td></td>
</tr>
<tr>
<td>202 kg (445 lb) for USA</td>
<td></td>
</tr>
<tr>
<td>201 kg (443 lb) for California</td>
<td></td>
</tr>
<tr>
<td><strong>Tire pressure</strong>:</td>
<td></td>
</tr>
<tr>
<td><strong>Up to 90 kg (198 lb) load</strong>:</td>
<td></td>
</tr>
<tr>
<td>Front</td>
<td>250 kPa (2.5 kgf/cm², 36 psi)</td>
</tr>
<tr>
<td>Rear</td>
<td>250 kPa (2.5 kgf/cm², 36 psi)</td>
</tr>
<tr>
<td><strong>90 kg (198 lb) ~ Maximum load</strong>:</td>
<td></td>
</tr>
<tr>
<td>Front</td>
<td>250 kPa (2.5 kgf/cm², 36 psi)</td>
</tr>
<tr>
<td>Rear</td>
<td>290 kPa (2.9 kgf/cm², 42 psi)</td>
</tr>
<tr>
<td><strong>High speed riding</strong>:</td>
<td></td>
</tr>
<tr>
<td>Front</td>
<td>250 kPa (2.5 kgf/cm², 36 psi)</td>
</tr>
<tr>
<td>Rear</td>
<td>250 kPa (2.5 kgf/cm², 36 psi)</td>
</tr>
</tbody>
</table>

* Load is the total weight of cargo, rider, passenger, and accessories.

### STANDARD EQUIPMENT

<table>
<thead>
<tr>
<th>No.</th>
<th>Part name</th>
<th>Q’ty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Owner’s manual</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Owner’s tool kit</td>
<td>1</td>
</tr>
</tbody>
</table>

### OWNER’S TOOL KIT

<table>
<thead>
<tr>
<th>No.</th>
<th>Part name</th>
<th>Q’ty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Owner’s tool bag</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Pliers</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Wrench (8 - 10)</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Wrench (10 - 12)</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Wrench (12 - 14)</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>Wrench (32)</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>Special wrench</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>Extension bar</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>Spark plug wrench</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>Screwdriver grip</td>
<td>1</td>
</tr>
<tr>
<td>11</td>
<td>Screwdriver bit (phillips-slotted)</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>Screwdriver bit (phillips)</td>
<td>1</td>
</tr>
<tr>
<td>13</td>
<td>Hexagon wrench (4)</td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>Hexagon wrench (5)</td>
<td>1</td>
</tr>
</tbody>
</table>
## TIGHTENING TORQUE

<table>
<thead>
<tr>
<th>Part to be tightened</th>
<th>Thread size</th>
<th>Tightening torque</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Nm</td>
</tr>
<tr>
<td><strong>Engine:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spark plugs</td>
<td>M10</td>
<td>13</td>
</tr>
<tr>
<td>Engine oil drain bolt</td>
<td>M14</td>
<td>43</td>
</tr>
<tr>
<td><strong>Chassis:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper bracket and front fork</td>
<td>M8</td>
<td>26</td>
</tr>
<tr>
<td>Steering stem nut</td>
<td>M28</td>
<td>115</td>
</tr>
<tr>
<td>Handlebar and front fork</td>
<td>M6</td>
<td>13</td>
</tr>
<tr>
<td>Handlebar and upper bracket</td>
<td>M6</td>
<td>13</td>
</tr>
<tr>
<td>Lower ring nut</td>
<td>M30</td>
<td>30</td>
</tr>
<tr>
<td>Lower bracket pinch bolts</td>
<td>M8</td>
<td>23</td>
</tr>
<tr>
<td>Main switch and handle crown</td>
<td>M8</td>
<td>26</td>
</tr>
<tr>
<td>Brake fluid reservoir cap stopper</td>
<td>M4</td>
<td>1.2</td>
</tr>
<tr>
<td>Front brake hose union bolts</td>
<td>M10</td>
<td>30</td>
</tr>
<tr>
<td>Engine mounting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Front mounting bolts</td>
<td>M10</td>
<td>45</td>
</tr>
<tr>
<td>Rear mounting bolts (upper and lower)</td>
<td>M10</td>
<td>50</td>
</tr>
<tr>
<td>Pinch bolts (front)</td>
<td>M8</td>
<td>24</td>
</tr>
<tr>
<td>Engine mount adjust bolt (rear)</td>
<td>M16</td>
<td>7</td>
</tr>
<tr>
<td>Exhaust pipe bracket and frame</td>
<td>M8</td>
<td>34</td>
</tr>
<tr>
<td>Clutch cable adjuster locknut (engine side)</td>
<td>M8</td>
<td>7</td>
</tr>
<tr>
<td>Main frame and rear frame</td>
<td>M10</td>
<td>40</td>
</tr>
<tr>
<td>Throttle cable adjuster locknut (engine side)</td>
<td>M6</td>
<td>5</td>
</tr>
<tr>
<td>Pivot shaft nut</td>
<td>M18</td>
<td>105</td>
</tr>
<tr>
<td>Pivot shaft adjust bolt</td>
<td>M25</td>
<td>5</td>
</tr>
<tr>
<td>Connecting arm and frame</td>
<td>M10</td>
<td>45</td>
</tr>
<tr>
<td>Relay arm and connecting rod</td>
<td>M10</td>
<td>45</td>
</tr>
<tr>
<td>Relay arm and swingarm</td>
<td>M10</td>
<td>45</td>
</tr>
<tr>
<td>Rear shock absorber and relay arm</td>
<td>M10</td>
<td>45</td>
</tr>
<tr>
<td>Rear shock absorber and frame</td>
<td>M10</td>
<td>45</td>
</tr>
<tr>
<td>Drive chain guard</td>
<td>M6</td>
<td>7</td>
</tr>
<tr>
<td>Fuel tank and fuel pump</td>
<td>M5</td>
<td>4</td>
</tr>
<tr>
<td>Fuel tank stay and fram (front)</td>
<td>M6</td>
<td>7</td>
</tr>
<tr>
<td>Fuel tank and stay (rear)</td>
<td>M6</td>
<td>10</td>
</tr>
<tr>
<td>Fuel tank and fuel tank side cover</td>
<td>M5</td>
<td>4</td>
</tr>
<tr>
<td>Rider seat and frame</td>
<td>M6</td>
<td>7</td>
</tr>
<tr>
<td>Coolant reservoir and radiator</td>
<td>M6</td>
<td>5</td>
</tr>
<tr>
<td>Tail cowling and frame</td>
<td>M5</td>
<td>4</td>
</tr>
<tr>
<td>Battery box and frame</td>
<td>M6</td>
<td>7</td>
</tr>
<tr>
<td>Taillight and battery box</td>
<td>M5</td>
<td>3</td>
</tr>
<tr>
<td>ECU and battery box</td>
<td>M6</td>
<td>1</td>
</tr>
<tr>
<td>Passenger seat lock and battery box</td>
<td>M6</td>
<td>3</td>
</tr>
<tr>
<td>Atmospheric pressure sensor and battery box</td>
<td>M5</td>
<td>0.7</td>
</tr>
</tbody>
</table>
### Table: Part to be tightened and tightening torque

<table>
<thead>
<tr>
<th>Part to be tightened</th>
<th>Thread size</th>
<th>Tightening torque</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Nm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>m • kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ft • lb</td>
</tr>
<tr>
<td>Lean angle cut-off switch sensor and battery box</td>
<td>M4</td>
<td>2</td>
</tr>
<tr>
<td>Rider footrest bracket and frame</td>
<td>M8</td>
<td>28</td>
</tr>
<tr>
<td>Passenger footrest bracket and frame</td>
<td>M8</td>
<td>28</td>
</tr>
<tr>
<td>Rear master cylinder</td>
<td>M6</td>
<td>18</td>
</tr>
<tr>
<td>Rear brake hose union bolts</td>
<td>M10</td>
<td>30</td>
</tr>
<tr>
<td>Sidestand</td>
<td>M10</td>
<td>63</td>
</tr>
<tr>
<td>Front wheel axle and bolt</td>
<td>M14</td>
<td>90</td>
</tr>
<tr>
<td>Rear wheel axle nut</td>
<td>M24</td>
<td>150</td>
</tr>
<tr>
<td>Front brake caliper and front fork</td>
<td>M10</td>
<td>40</td>
</tr>
<tr>
<td>Brake disc and wheel</td>
<td>M6</td>
<td>18</td>
</tr>
<tr>
<td>Rear wheel sprocket and rear wheel drive hub</td>
<td>M10</td>
<td>100</td>
</tr>
<tr>
<td>Brake caliper and bleed screw</td>
<td>M8</td>
<td>6</td>
</tr>
<tr>
<td>Pinch bolt (front wheel axle)</td>
<td>M8</td>
<td>18</td>
</tr>
</tbody>
</table>

**NOTE:**

1. First, tighten the ring nut to approximately 50 Nm (5.0 m • kg, 36 ft • lb) with a torque wrench, then loosen the ring nut completely.
2. Retighten the ring nut 9 Nm (0.9 m • kg, 6.5 ft • lb).