



YAMAHA

2022

ASSEMBLY MANUAL

CROSSCORE RC

**PC65CRL
PC65CRM
PC65CRS**

FOREWORD

This Assembly Manual contains the information required for the correct assembly of this Yamaha bicycle prior to delivery to the customer. Since some external parts of the bicycle have been removed at the Yamaha factory for the convenience of packing, assembly by the Yamaha dealer is required. No adjustment of the power unit mechanism, which plays the most important part in riding, is necessary because it has been adjusted at the factory before shipping. It should be noted that the assembled bicycle should be thoroughly cleaned, checked, and adjusted prior to delivery to the customer.

IMPORTANT





The service specifications given in this assembly manual are based on the model as manufactured. Yamaha Motor Company, Ltd. is continually striving to improve all of its models. Modifications and significant changes in specifications or procedures will be forwarded to all authorized Yamaha dealers and will appear in future editions of this manual where applicable.

The procedures below are described in the order that the procedures are carried out correctly and completely. Failure to do so can result in poor performance and possible harm to the bicycle and/or rider.

CONCERNING CRATE DAMAGE:

Follow the instructions in the Dealer Warranty Handbook, Procedure Section.

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

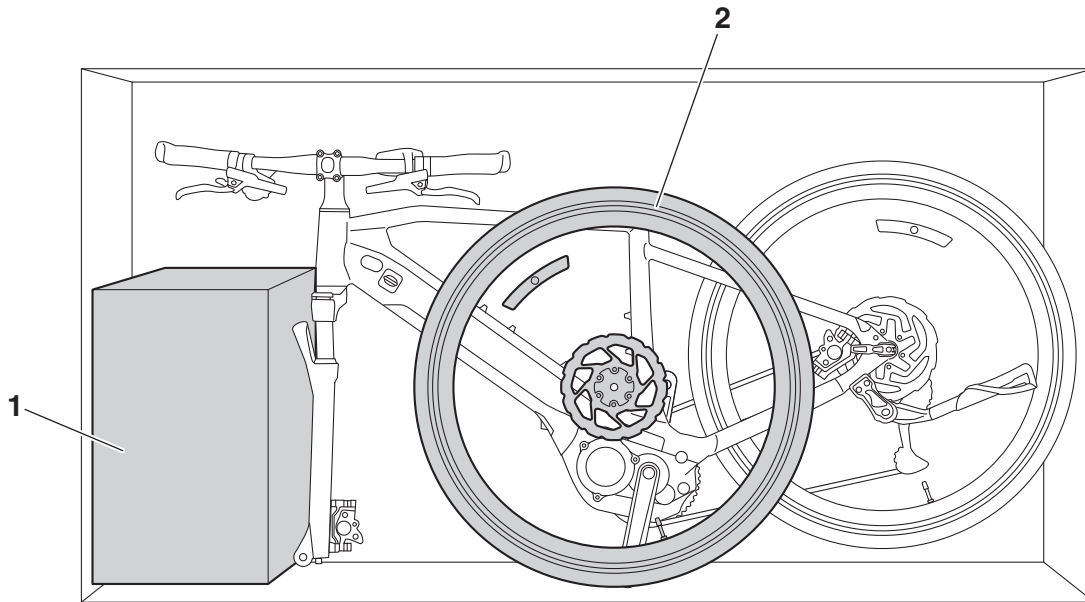
	This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.
	A WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.
	A NOTICE indicates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

**PC65CRL/PC65CRM/PC65CRS
ASSEMBLY MANUAL
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PARTS LOCATION

NOTICE

- Do not use a cutter, scissors, or other sharp object to open the part boxes; otherwise, the included parts could be damaged.
- Wear suitable protective gear such as gloves when handling and opening the part boxes.



1. Part box 1
2. Front wheel

INCLUDED PARTS

INCLUDED PARTS

The parts listed as follows are included*. Check the parts and their quantities before starting assembly.

No.	Part names	Q'ty	Remarks
①	Front wheel	1	
②	Part box 1	1	
③	Part box 2	1	② in part box 1
④	Part box 3	1	② in part box 1

Part box 1 details

⑤	Saddle and seat post assembly	1	
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Part box 2 details

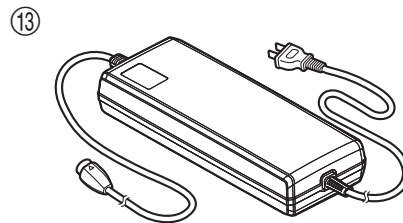
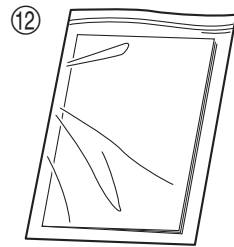
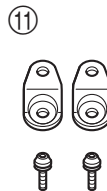
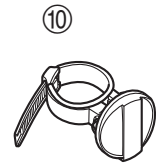
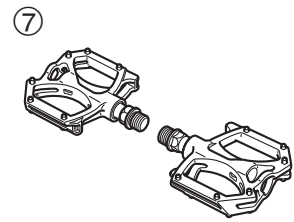
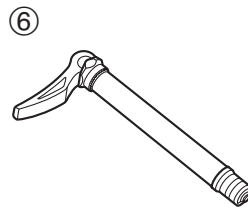
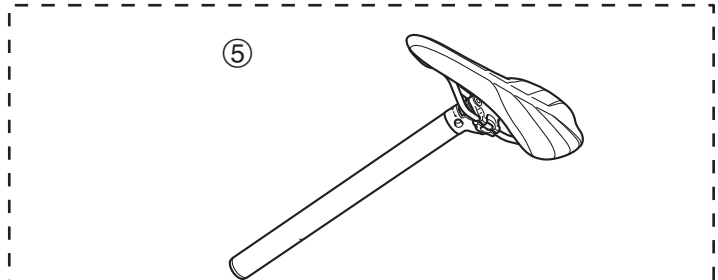
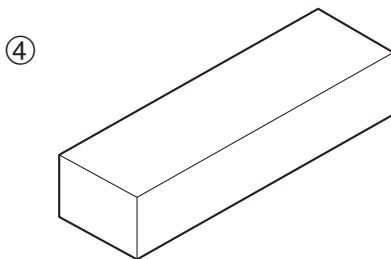
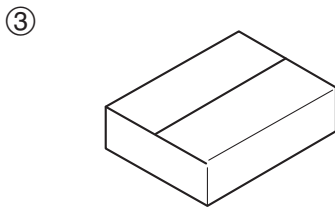
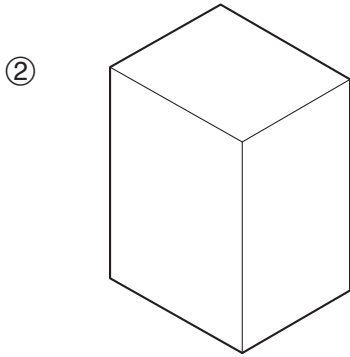
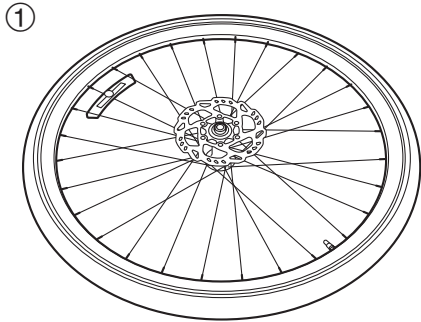
⑥	Front axle	1	
⑦	Pedals	2	1 each for left and right
⑧	Bell	1	
⑨	Front reflector	1	
⑩	Rear reflector	1	
⑪	Optional stay	2	Used when installing the mudguard (optional)
⑫	Owner's manual	1	

Part box 3 details

⑬	Battery charger	1	
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* The form of the package is subject to change without notice.

INCLUDED PARTS



INSTALLING THE INCLUDED PARTS

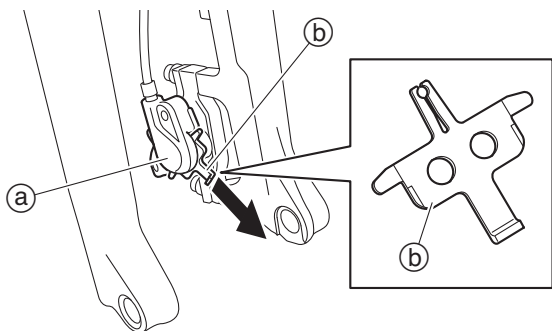
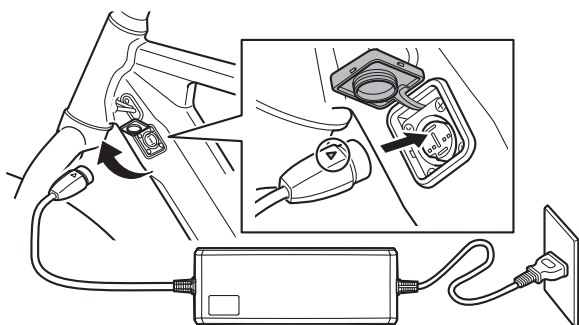
INSTALLING THE INCLUDED PARTS

WARNING

Tighten the bolts and nuts to the specified torques. Failure to tighten the bolts and nuts to the specified torques could prevent proper operation of the bicycle and make it unsafe to operate.

TIP

- Charge the battery pack following the instructions in the owner's manual before starting installation.
- The letters inside the parts list boxes in the assembly procedures indicate the following:
A: Part in part box 1
B: Part in part box 2

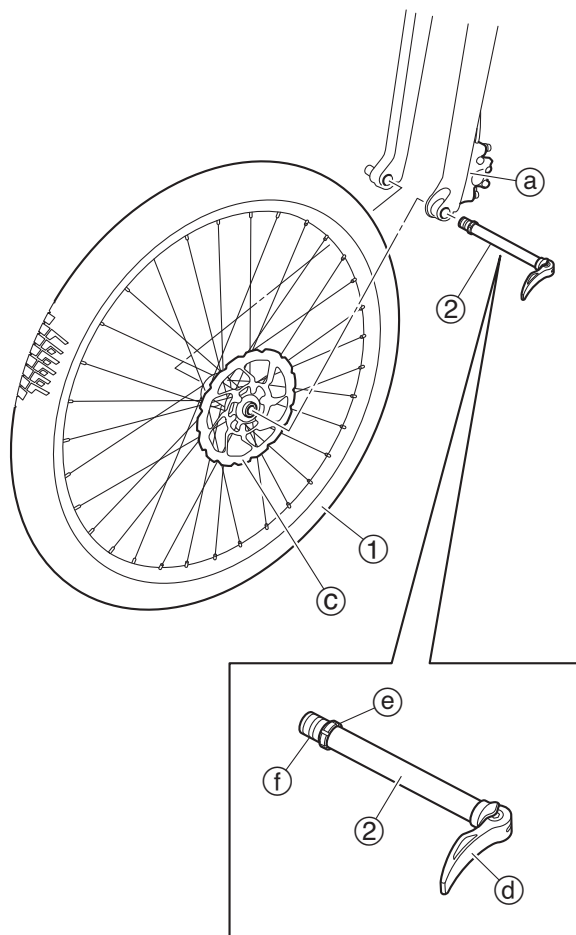


1. Installing the front wheel and fork end

Remove the spacer (b) from the front disc caliper (a).

Give the removed spacer (b) to the customer, explaining how it is used.

INSTALLING THE INCLUDED PARTS



Align the holes in the front wheel ① with the holes in the fork end and install the front wheel ①.

Install it in such a way that the disc rotor ③ does not touch the disc pad.

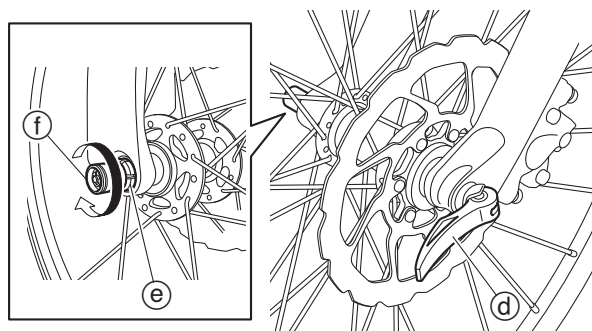
Put the lever ④ of the front axle ② down in the direction in which the stamp "OPEN" is visible and check that the collar ⑤ is open.

Install the front axle ② to the fork end holes from the left side of the bicycle.

TIP

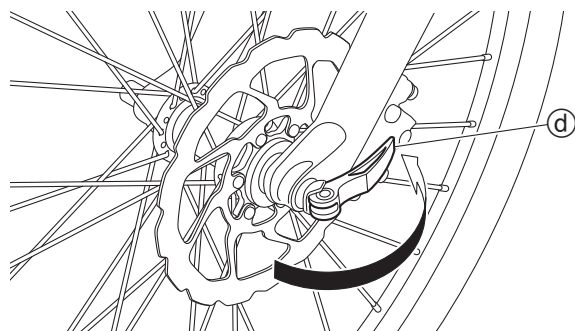
- Even if the collar ⑤ of the front axle ② is inserted with the collar open, it will close when pressed in.
- When the collar ⑤ is closed, turn the nut ⑥ approximately 1/8 turn counterclockwise while keeping it pressed in; the collar will then open.

①	Front wheel	1	
②	Front axle	1	B



Check that the collar ⑤ of the front axle ② goes through the hole in the right side of the fork end and that the collar is actually open.

Turn the nut ⑥ while keeping it pressed to prevent the lever ④ from turning, and tighten it until there is a little resistance.



Determine the position in which the lever ④ is to be fastened, lower it in the direction in which the stamp "CLOSE" is visible, then fasten it.

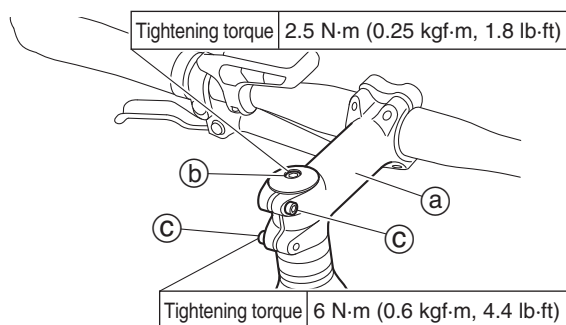
INSTALLING THE INCLUDED PARTS

WARNING

- Position the lever when it cannot touch obstacles while the bicycle is moving. If not, the lever could be unlocked unexpectedly, causing the front wheel to come off, resulting in an accident with severe injury or death.
- Fasten the lever ④ at position where the tip does not touch other parts when the lever ④ is lowered.
- Fasten the lever ④ facing backward from the direction of travel in such a way that it cannot easily touch obstacles that might be encountered while riding.

TIP

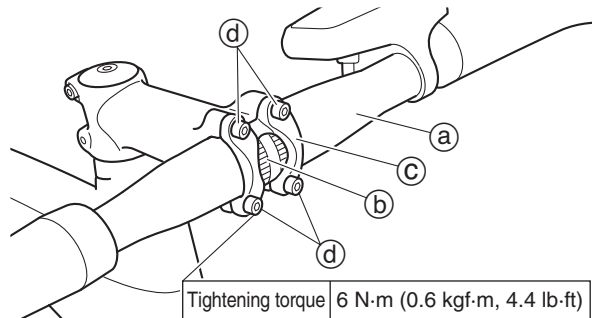
If the lever ④ of the front axle ② is too hard and cannot be lowered, or if it is too loose and cannot be lowered for it to be locked, turn the nut ① again to loosen or tighten it, adjusting so that it can be fastened securely.



2. Installing the handlebar stem

Position the handlebar stem ① in a straight line with the front wheel.

Tighten the bolts ② and ③, in that order, to the specified torques.



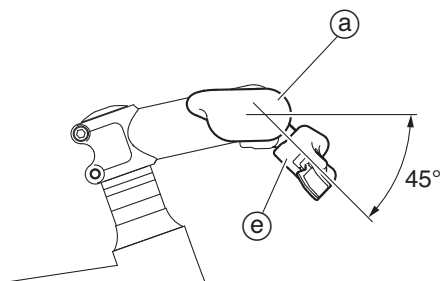
3. Installing the handlebar

Install the handlebar ① so that the knurled part ② is at the center of the handlebar holder ③, then tighten the 4 handlebar holder ③ bolts ④ to the specified torque.

NOTICE

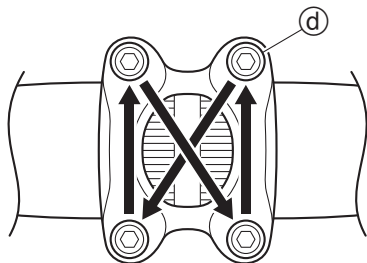
The handlebar ① should not touch the frame when it is turned fully to the left or right.

INSTALLING THE INCLUDED PARTS



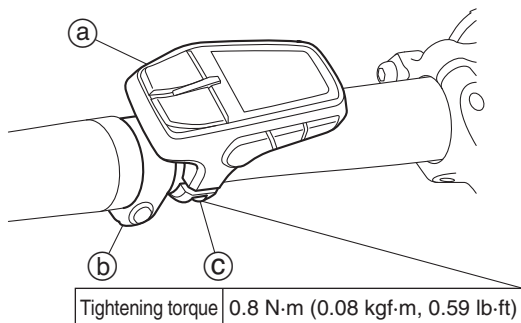
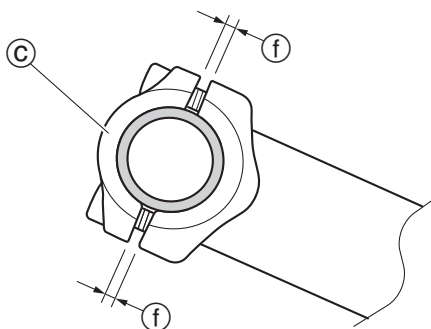
TIP

Install the handlebar (a) so that the brake levers (e) are at a 45° angle to the handlebar, as shown in the illustration.



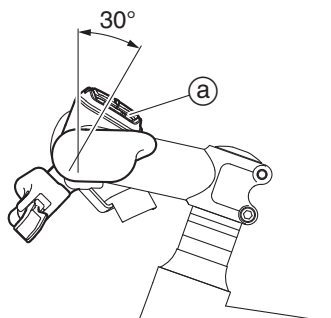
TIP

- Tighten bolts (d) evenly in stages, in the order shown in the illustration.
- Tighten in such a way that the gaps (f) above and below the handlebar holder (c) are equal.



4. Adjusting the display unit position

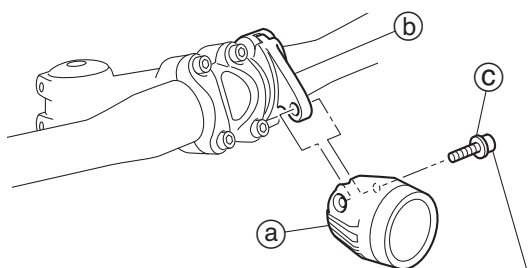
Adjust the display unit (a) position so that it is close to the brake lever (b), and tighten the bolt (c) to the specified torque.



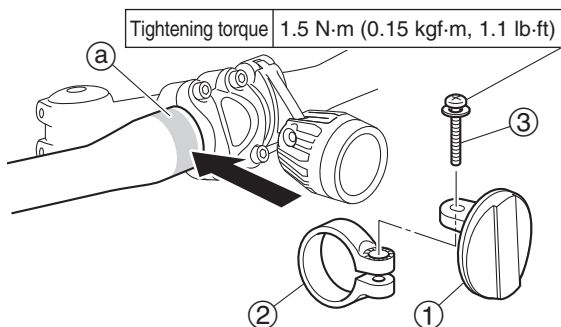
TIP

Install the display unit (a) so that it is at a 30° angle as shown.

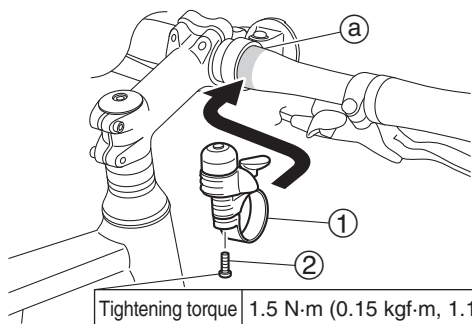
INSTALLING THE INCLUDED PARTS



Tightening torque 7 N·m (0.7 kgf·m, 5.2 lb·ft)



Tightening torque 1.5 N·m (0.15 kgf·m, 1.1 lb·ft)



Tightening torque 1.5 N·m (0.15 kgf·m, 1.1 lb·ft)

5. Installing the headlight

Install the headlight (a) to the bracket (b) as shown, then tighten the bolt (c) to the specified torque.

TIP

Install in such a way that the headlight points downward from horizontal and shines on the road approximately 33 feet (10 meters) ahead.

6. Installing the front reflector

Install the front reflector (1) at the position (a) shown in the illustration, then tighten it together with the stay (2) and screw (3).

①	Front reflector	1	B
②	Stay	1	B
③	Screw	1	B

TIP

Install the front reflector (1) while adjusting it so that it faces to the front and making sure that the wires, etc. do not contact the front reflector.

7. Installing the bell

Install the bell (1) in the position (a) shown, then tighten it with the screw (2).

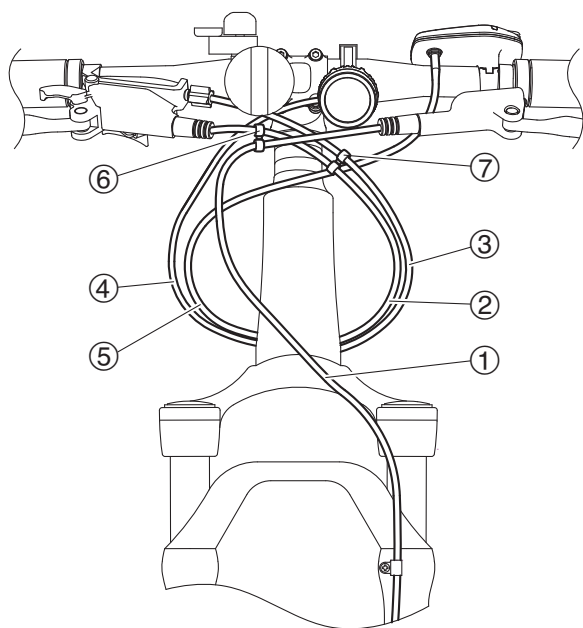
①	Bell	1	B
②	Screw	1	B

INSTALLING THE INCLUDED PARTS

8. Routing the wires

WARNING

Be sure to route the wires as shown in the illustration. If not, they could interfere with handlebar operation which could cause loss of control.



Confirm that hoses and wires are routed in order starting from front to back:

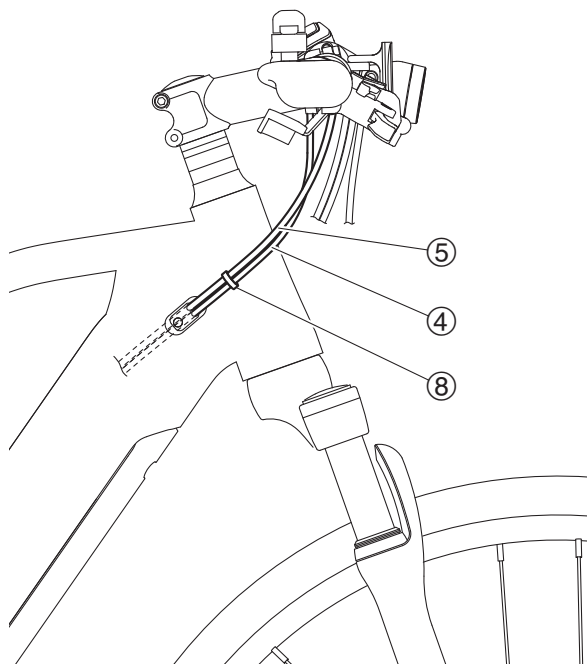
- Front brake hose ①
- Rear brake hose ②
- Shift wire ③
- Headlight lead ④
- Display unit lead ⑤

Fasten the front brake hose ① and rear brake hose ② to the wire clip ⑥ at the position shown. Fasten the rear brake hose ② and shift wire ③ to the wire clip ⑦ at the position shown.

TIP

- The routing order of the rear brake hose ② and shift wire ③ does not matter.
- The routing order of the headlight lead ④ and display unit lead ⑤ does not matter.

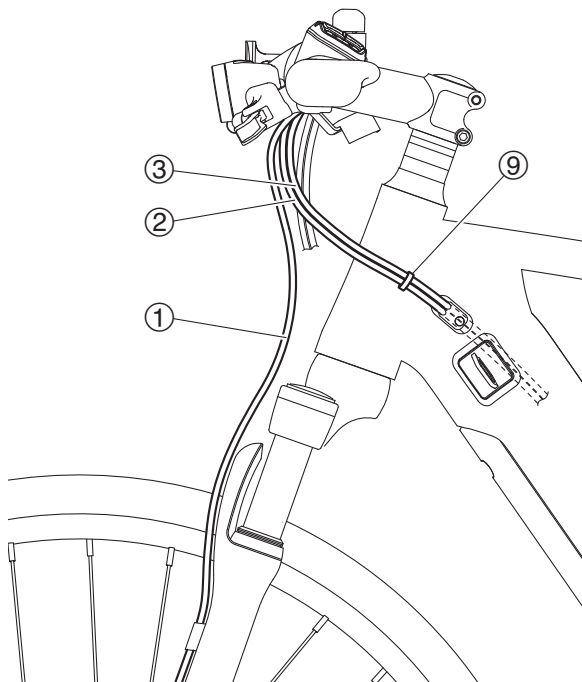
Fasten the headlight lead ④, and display unit lead ⑤ with the plastic locking tie ⑧, and then make sure that they are routed as shown.



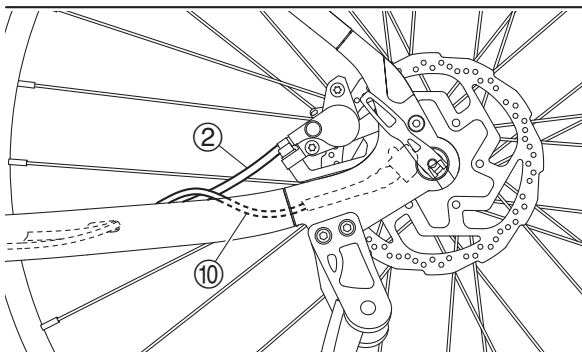
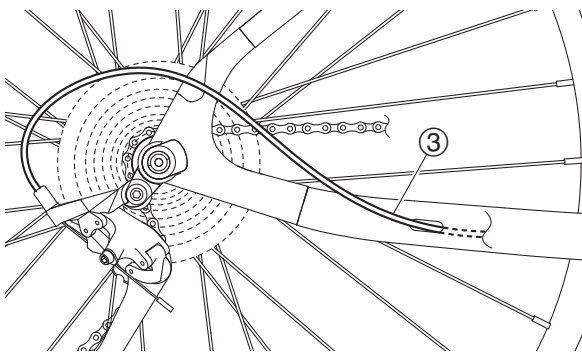
INSTALLING THE INCLUDED PARTS

Fasten the rear brake hose ② and shift wire ③ with the plastic locking tie ⑨, and then make sure that they are routed as shown.

Make sure that the front brake hose ① is routed as shown.

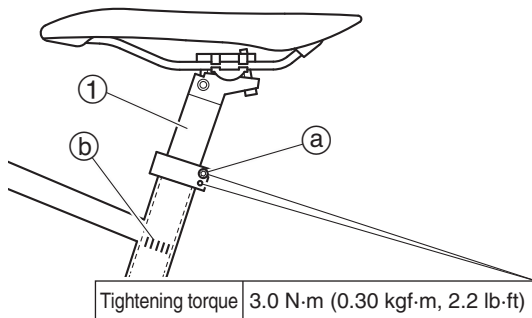


Make sure that the rear brake hose ②, shift wire ③, and speed sensor lead ⑩ are routed as shown.



9. Tightening the seat pin

Insert the saddle and seat post ①, then tighten the bolt ② to the specified torque.



①	Saddle and seat post	1	A
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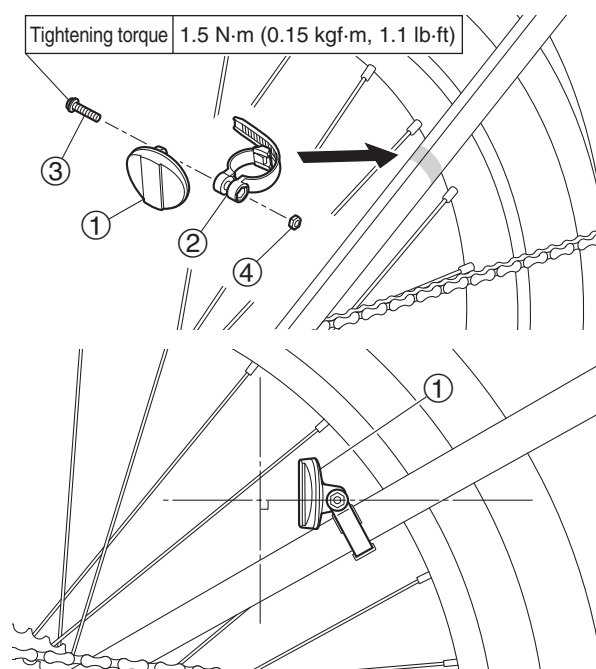
INSTALLING THE INCLUDED PARTS

⚠ WARNING

- Insert the seat post far enough that the raise limit ⑥ is not visible. If installed at a position at which the raise limit ⑥ is visible, the seat post, clamp, or even frame may break, which could cause the rider to lose control and fall.
- Always tighten fasteners to the correct torque. Bolts that are too tight can stretch and deform. Bolts that are too loose can move and fatigue. Either mistake can lead to a sudden failure of the bolt, causing the rider to lose control and fall.

NOTICE

When lowering the saddle, do not insert the seat post all the way. Otherwise, the lower end of the seat post will contact the seat band, and as a result the seat post and seat band could be damaged. If the seat post is nevertheless inserted all the way, fasten the seat post after pulling it up slightly.



10. Installing the rear reflector

Install the rear reflector ①, band ②, screw ③, and nut ④ as shown, and then tighten them together to the specified torque.

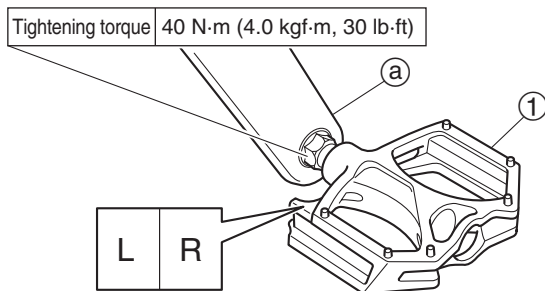
Secure them to the frame with the band ②.

①	Rear reflector	1	B
②	Band	1	B
③	Screw	1	B
④	Nut	1	B

TIP

- Adjust the rear reflector ① so that it is facing straight backward, then tighten it.
- When assembling the rear reflector ① to the frame, adjust the length by cutting the adjustment pad inside the band to fit the frame.

INSTALLING THE INCLUDED PARTS



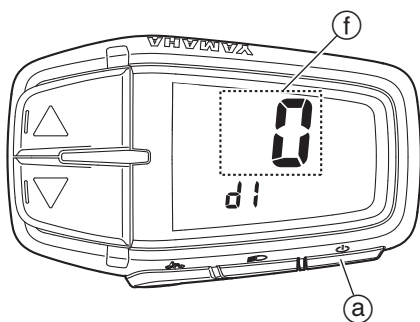
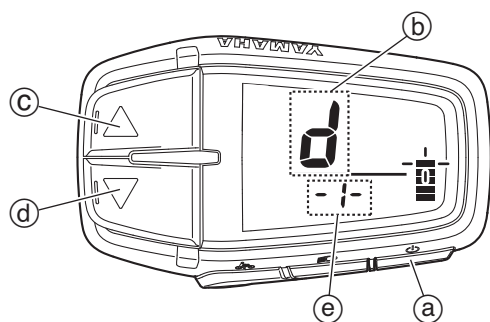
11. Installing the pedals

Install the pedals ① to the crank (a), then tighten to the specified torque.

①	Pedals (left and right)	1 each	B
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TIP

- Right-hand screw (marked “R”) for right pedal
- Left-hand screw (marked “L”) for left pedal

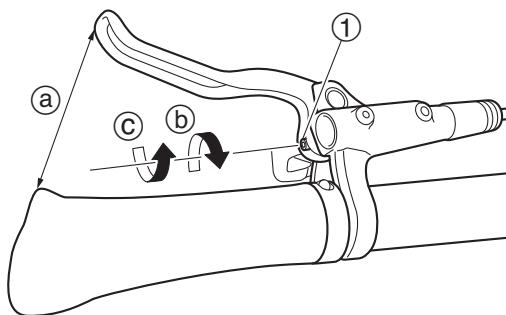


12. Checking the operation of the speed sensor

- Press the power button (a) to turn on the power.
- Long-push the power button (a) for approximately 10 seconds within 30 seconds after power-on, make sure that the display changes to the self-diagnosis display (b), and then release the power button (a).
- Change the option (e) by using either the assist up button (c) or the assist down button (d) until “-1-” is displayed.
- Long-push the assist down button (d) for at least 2 seconds, and then release the button to confirm.
- Make sure that the speedometer (f) is displayed and that the mode has been switched to the speed sensor confirmation mode.
- The number displayed on the speedometer (f) counts up when the rear wheel is lifted off the ground and turned. The number increases by 1 for 1 turn. Check that the position of the wheel at which the display counts up is stable.
- After checking the operation, press the power button (a) to quit.

TIP

Turn the rear wheel at least 3 revolutions and check that the display reads “3”.



13. Adjusting the opening of the front and rear brake levers

Before adjusting the opening of the brake levers, grip the brake levers approximately 10 times to pump them.

Turn the adjusting screw ① to adjust the opening of the tip of the brake lever (a) from the tip of the grip.

(b) direction	Opening gets larger.
(c) direction	Opening gets smaller.

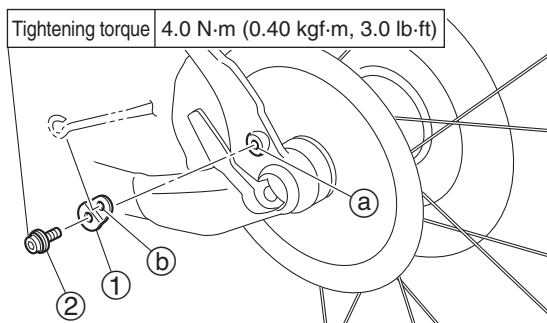
INSTALLING THE INCLUDED PARTS

NOTICE

After adjusting the brake lever opening, check that the rotation of the front and rear wheels is not heavy.

TIP

Adjust to a position at which it is easy for the customer to operate the front and rear brake levers and within the range of play of the brake levers.



14. Installing the optional stay

When installing the mudguard (optional), if the stay of the mudguard does not reach the hole ① in the rear frame, use the optional stay ①.

Install the optional stay ① into the hole ① in the rear frame as shown, and then tighten the bolt ② to the specified torque.

Install the mudguard (optional) into the hole ② in the optional stay ①.

①	Optional stay	2	B
②	Bolt	2	B

PREDELIVERY INSPECTION

WARNING

After completing the installation, inspect the items as follows and check that there are no problems before delivering the bicycle. Adjust controls and saddle height to the customer's satisfaction according to this manual.

- Handlebar orientation, height, angle, and tightening
 - Installing the head cap to the handlebar post: 2.5 N·m (0.25 kgf·m, 1.8 lb·ft)
 - Installing the handlebar stem to the handlebar post: 6 N·m (0.6 kgf·m, 4.4 lb·ft)
 - Installing the handlebar to the handlebar holder: 6 N·m (0.6 kgf·m, 4.4 lb·ft)
- Saddle orientation, height, angle, and tightening
 - Tightening the seat pin: 3.0 N·m (0.30 kgf·m, 2.2 lb·ft)
 - * Check that the saddle is firmly fastened.
- Various fittings adjusted to the customer's riding posture
 - * Including brake lever angle, fork suspension air pressure, etc.
- Inspection of the wheels, hubs, and spokes
- Tightening of the pedals: 40 N·m (4.0 kgf·m, 30 lb·ft)
- Tightening of the screws of each part
 - Installing the display unit: 0.8 N·m (0.08 kgf·m, 0.59 lb·ft)
 - Installing the headlight: 7 N·m (0.7 kgf·m, 5.2 lb·ft)
 - Installing the front reflector: 1.5 N·m (0.15 kgf·m, 1.1 lb·ft)
 - Installing the bell: 1.5 N·m (0.15 kgf·m, 1.1 lb·ft)
 - Installing the rear reflector: 1.5 N·m (0.15 kgf·m, 1.1 lb·ft)
 - Installing the optional stay: 4.0 N·m (0.40 kgf·m, 3.0 lb·ft)
- Brake performance
- Shift changing operation
- Looseness of the chain
- Bell sound
- Battery pack locking operation
 - * Check that the battery pack locks securely.
- Check of battery pack and battery charger operation
- Make sure that charging of the battery pack is complete
- Operation of the meter, switches, and drive unit
- Light, brightness, and angle of the headlight
 - * Check that the headlight shines on the road approximately 33 ft. (10 m) ahead.
- Installation state of the reflectors
- Maximum tire air pressure
 - Front tire: 450 kPa (4.5 kgf/cm², 65 psi)
 - Rear tire: 450 kPa (4.5 kgf/cm², 65 psi)

