







Preface

This manual was prepared by FELO Technology(Shanghai) Co., Ltd. for the purpose of the spot inspection and motorcycle maintenance by after-sales service personnel of FELO dealers. Although this manual does not cover all aspects of maintenance, it does contain general information on spot inspection and basic maintenance of the motorcycle. The purpose of this manual is to ensure that the driver can ride the motorcycle safely and comfortably through proper maintenance of the motorcycle with tools and devices.

- FELO Technology (Shanghai) Co., Ltd. constantly seeks to improve its products. As such the contents and specifications herein may be changed without prior notice.
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Key information:

Particularly important information is distinguished with the following symbols.

\land Danger	Failure to follow the instructions will result in serious injury or death.
A Warning	Failure to follow the instructions may result in serious injury or death.
() Attention	Failure to follow the instructions may result in your injury.
Caution	Take special measures to prevent damage to your electric motorcycle or other property.

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Replication is prohibited.

FELO Technology(Shanghai) Co., Ltd.

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Basic Instructions

Safety precautions

For the safety of the motorcycle owner

Proper repair and maintenance is crucial for the safety of the motorcycle and its owner. Any error or negligence in motorcycle maintenance may cause a malfunction during the motorcycle's operation, and this may in turn cause damage to the motorcycle or personal injuries.

• Improper repair or maintenance may pose a safety risk; your customer may suffer from serious injuries or even death as a result.

• Please follow the procedures and precautions specified in this manual carefully.

For your safety

Marning

Because this manual was prepared for professional maintenance/service personnel only, we will not provide the warnings relating to basic safety rules for repair/maintenance workshop (e.g. wearing gloves when handling heated parts). If you have not received any safety training provided by the repair/maintenance workshop, or you are not confident in your knowledge on safe maintenance operations, we recommend you do not attempt to carry out any procedure described in this manual.

Some of the most important safety precautions in this manual are given below. However, we cannot cover all dangers that may occur during repair or maintenance. You alone will determine whether such maintenance or repair is to be carried out.

Failure to properly follow the instructions and precautions below may cause serious injuries

A Warning

or even deaths.Please follow the procedures and precautions specified in this manual carefully.

Instructions on how to operate this motorcycle

	 Before inspecting or repairing (removing/installing) components, always turn off the main switch and remove the battery.
	 To prevent electric shocks, always wear safety protection gears, and use insulation tools when inspecting or repairing components.
🕂 Warning	 During such operation, do not carry any metal objects with you.
	 Do not work on slippery floors or under the rain.
	The bettern electrolyte new environable descent of initial Therefore takes extra series where

• The battery electrolyte may cause blindness or injuries. Therefore take extra care when operating the motorcycle. If your eyes or skin comes into contact with electrolyte, please immediately flush the area with plenty of water and have it examined by professionals.

Do not use a high-voltage water gun when washing your motorcycle, the high-voltage water may cause a malfunction in moving or electrical components of your motorcycle.

Basic Instructions

Important safety precautions:

When inspecting and repairing the high-voltage system, please follow the instructions below.

- When carrying out repair or maintenance of the motorcycle, please always wear safety protection gears, and use insulation tools. Please always check safety protection gears and insulation tools before using.
- When carrying out any high-voltage work, please indicate on the motorcycle that such work is being carried out to ensure the safety of other people.

Make sure that you clearly understand all safety rules of the repair/maintenance workshop, wear proper clothes and use safety devices. The following need extra attention when carrying out any maintenance work:

- Before starting any work, please read all instructions in the manual, and ensure that you have all necessary tools to replace or repair components so as to safely and fully complete your work.
- When you carry out hammering, drilling, grinding or prying operations, or work in the vicinity of high-voltage air or fluids, springs, or other energy storage components, you need to wear qualified safety glasses, goggles, or face mask during the entire operating process to protect your eyes.
- Hot or sharp components, may cause serious burns or cuts. Therefore, when necessary, you need to use other protection gears such as gloves or safety boots.
- If you need to raise your motorcycle for maintenance, please use a jack or special base. Any time you raise your vehicle, make sure it is always securely supported.

Special tools:

To replace non-universal parts, you should carefully and properly use the tools recommended by our company.

Special parts:

When replacing parts, please use the brands specified by our company. If you use a brand other than our specified brands, it may harm the part's performance, thus severely shortening the service life of your motorcycle.

Using this manual

Symbols

These symbols used in this manual indicate specific maintenance and repair procedures. If there is any need for additional information relating to these symbols, such information will be provided in the corresponding text specifically without use of the symbols.

	Disassembling procedure Components to be disassembled before carrying out the operation in the main diagram	\bigcirc	Standard parts
	Lubrication		Tighten to the specified torque
	Adjust or check parts		Measure parts
×	Removal/installation		Parts replacement
	Apply the lubricant		Apply thread locker
U E	Apply the sealant	Ā	Measure the current
V	Measure the voltage	Ω	Measure the resistance

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Motorcycle Information

Model

2



Vehicle information



MEMO

Technical parameters

Main parameters

3

I

Items		Specification
	Total length	1830 mm
	Total width	755 mm
	Total height	1095 mm
0:	Wheel base	1240 mm
Size	Saddle height	800 mm
	Ground clearance	162 mm
	Curb weight	125 kg
	Maximum load	150 kg
Chassis	Chassis type	Steel tube chassis
	Front tire dimension	110/80-14
Front wheel	Cold tire pressure	200 kPa
	Spring free length	438±3 mm
Front snock absorber	Liquid volume	57- 59 mL
Poor wheel	Rear tire dimension	140/70-14
Rear wheel	Cold tire pressure	225 kPa
Poor chock choorbor	Spring free length	275±3 mm
Rear Shock absorber	Liquid volume	104-106 mL
	Front brake	Hydraulic single-disc brake
Front brake system	Brake fluid	DOT3
	Brake disc thickness	4±0.1 mm
	Rear brake	Hydraulic single-disc brake
Rear brake system	Brake fluid	DOT3
	Brake disc thickness	4±0.2 mm
Controller	Max input current	120 A
Convertor	Туре	DC-DC
	Output	13.8 V/7 A
	Туре	Lithium battery
	Voltage	96 V*
Power battery	Capacity	58 Ah
	Total mass	35±1 kg
	Single cell configuration	26S1P
Batton	Voltage	12 V
Dallery	Capacity	4 Ah

* Battery operating voltage is 96 V.

Items		Specification
	Charging method	CC-CV
Charger	Input	100-240 Vac
Charger	Output	70-108 V/7.4 A
	Cooling method	Air cooling
	Power battery fuse	150 A
Fuse	DC input fuse	7 A
	USB charging fuse	5 A
Power-off switch	Power-off switch	63 A
	Motor installation position	Central installation
	Туре	Permanent magnet
Motor	Rated power	5 kw
WOTO	Rated voltage	96 V
	Cooling method	Air cooling
	Maximum power	10 kw

Torque

Body torque

	Items	Screw specification/model	Tightening torque (N⋅m)
	Steering rod and Lower mount	M10*1.25	45
Steering rod	Front riser	Lock nut with four openings(Ø25-1)	58*
assembly		Octagonal lock nut (Ø25- 1)	58
	Upper mount	M8*1.25	27
Wheel eveter	Front wheel	M10*1.25	40
wheel system	Rear wheel	M16*1.5	120
Suspension system	Front left and right shock absorber	M10*1.25	40
	Rear shock absorber	M10*1.25	40
	Front disc brake	M8*1.25	35
Droke evetere	Rear disc brake	M8*1.25	35
Brake system	Front brake caliper	M10*1.25	35
	Rear brake caliper	M8*1.25	22
Motor lifting	Rocker arm installation	M10*1.5	40
installation	Motor installation	M8*1.25	22
Rocker arm	Rocker arm reduction gearbox installation	M14*2	65
Others	Rear rocker arm rear connection	M10*1.5	35
	Chassis battery pack front suspension	M10*1.25	40

* A torque of 58 N-m is used to lock the lock nut with four openings counterclockwise, and a torque of 3-5 N-m is used to lock the column clockwise.

Universal torque

Items	Tightening torque (N⋅m)
M4 Bolt, nut	2-4
M5 Bolt, nut	3.5-6
M6 Bolt, nut	7-14
M8 Bolt, nut	18-30
M10 Bolt, nut	30-45
M12 Bolt, nut	50-60
M14 Bolt, nut	60-80
M4 Self-tapping screw	0.5-1.5
M5 Self-tapping screw	1-3

Unit symbol comparison table

Unit name	Unit symbol	Unit name	Unit symbol
Kilogram	Kg	Newton	Ν
Gram	g	Kilowatt	kW
Degree	٥	Kilowatt hour	kW∙h
Newton meter	N∙m	Hertz	Hz
Kilopascal	kPa	Temperature in Celsius	°C
Kilogram force per square meter	kgf/m²	Ampere	А
Rotation per minute	r/min	Milliampere	mA
Meter	m	Volt	V
Centimeter	cm	Ohm	Ω
Kilometer per hour	km/h	Liter	L
Quart	qt	Milliliter	mL
Pound	lb	Ounce	oz
Mile per hour	mph	Millimeter	mm
Degree in Fahr- enheit	°F		

Table of Conversion of Measurement Unit

Metric unit to Imperial unit			
Category	Metric unit	Multiplier	Imperial unit
Waight	kg	2.2	lb
weight	g	0.04	oz
Torquo	N∙m	0.72	ft·lb
Iorque	N∙m	8.68	in∙lb
Speed	km/h	0.62	mph
	km	0.62	mi
	m	3.28	ft
Distance	m	1.094	yd
	cm	0.4	in
	mm	0.04	in
Volume	mL	0.04	oz
	L	0.88	qt
Temperature	°C	9/5 + 33.8	°F

Note: Use method

Metric unit		Multiplier		Imperial unit	
**kg	×	2.2	=	**lb	
2 kg	×	2.2	=	4.4 lb	

Wiring of the pulling wire and wiring harness















MEMO

Introduction

This chapter describes the inspection items and adjustment methods required in a regular inspection. The maintenance measures will enable your motorcycle to always be in good condition, with improved after-sales service, thus saving maintenance cost.

Maintenance schedule

Every two years						
					Every year	
			Every	10,000 km		
		Ever	y 5,000 km			
	Afte	er 1,000 km				
Items	Inspection before riding					
Check brake discs		0	•	٠	•	•
Check front wheel brake pads		0	•	•	•	•
Check rear wheel brake pads		0	•	•	•	•
Check the brake fluid level of the front wheel brake		0	•	•	•	
Check the brake fluid level of the rear wheel brake		0	•	•	•	
Check if the brake pipeline is damaged		0	•	•	•	•
Check the bearing clearance of the steering head		0	•	•	•	•
Check steering column bearing lubrication		0	•	•	•	•
Check the state of tires	I	0	•	•	•	•
Check the tire pressure	I	0	•	•	•	•
Check if the front and rear shock absorbers leak	I	0	•	•	•	•
Check if the lights, signals and switches work normally	I	0	•	•	•	•
Replace gear oil		0		•	•	•
Check if the side stand screw is loose		0	•	٠	•	•
Check the belt and replace it if necessary*	I			•	•	•
Check if the wheel bearing is loose or damaged		0	•	٠	•	•
Check parts and cables	I	0	•	٠	•	•
Check the motorcycle frame				٠		•
Check the rocker arm				٠		•
Check if nuts, bolts and fasteners are loose		0	•	•	•	•
Check if rubber parts are damaged		0	•	٠	•	•
Check if the rocker arm bearings can rotate smoothly, and whether they are damaged		0	•	•	•	•
 Lubricate all moving parts and check their movement		0	•	•	•	•
Check if the motor pulley and gearbox pulley are damaged*		0	•	•	•	•
Check if the overall wiring harness is damaged		0	•	•	•	•
Replace the brake fluid of the front wheel brake						•
Replace the brake fluid of the rear wheel brake						•

▲:Work that must be performed

: One-time cycle

• : Periodic cycle

I : Inspection is required (when necessary, cleaning, adjustment, lubrication or replacement should be done).

* : When replacing the belt, you need to replace the motor pulley and gearbox pulley, and vice versa, to avoid similar damage from occurring.

2

Spot Inspection and Adjustment



Spot inspection of the speed-control handlebar

When the power switch is in the (OFF) position, check whether the speed-control handlebar can be turned from the fully-closed to the fully-opened position smoothly.

If the operation is impeded, please replace the faulty parts.



Brake fluid level adjustment

- Front and rear brake fluid level adjustment
 Place the motorcycle vertically on a flat surface for
 the brake fluid level to be parallel to the brake pump
 level so as to precisely read the brake fluid level.
- 2. Perform the following spot inspection:

When the brake fluid level is below the lower limit mark, promptly refill the brake fluid to the specified level .

Recommended brake fluid: DOT 3 brake fluid

Caution
 painted surfa

• Brake fluid can damage plastic and painted surfaces. If any fluid spills over, please wipe it immediately, and clean the affected area completely.

Spot inspection of the brake hose

- 1. Check if the brake hose is cracked or damaged. If any of the said conditions is found, please replace it promptly.
- 2. Perform the following spot inspection:
 Check if the brake hose bracket is loose → Tighten the brake hose bracket
- 3. Tightly hold and release the brake handle several times.
- Check if the brake handle works smoothly → Discharge the air from the brake system and replace the faulty parts.
- 5. Perform the following spot inspection:Brake hose

If the brake fluid leaks, replace the brake hose in time.





Discharge air from the front brake system and replace the brake fluid

Discharge air and replace the brake fluid according to the following procedure:

- 1. Open the upper brake pump cover.
- 2. Insert the drain hose to the lower brake pump drain bolt.
- 3. Tightly hold and then release the brake handle 3-5 times to exert force to the brake oil pipe (adjust the frequency of holding and releasing according to the actual situation).
- 4. Tightly hold and release the brake handle several times.
- 5. Loosen the drain bolt. When the brake handle has an obvious pinching feeling, quickly tighten the drain bolt to prevent brake fluid from flowing back along the pipeline.
- 6. Release the brake handle.
- 7. Pour the brake fluid into the cup of the upper brake pump.
- 8. Repeat the said Step 3-7 until the old fluid has been completely replaced with the new fluid, and the color of the fluid in the drain pipe is the same as that of the new fluid in the cup of the upper brake pump. When you feel the brake handle is hard, and no bubbles are generated from the cup of the upper brake pump cup, the drain bolt can be tightened to complete the operation.
- 9. After the operation is completed, install the cover of the upper brake pump, and check if the brake works normally.

Recommended brake fluid: DOT 3 brake fluid

Caution	 Put on protection gears before starting to work. The brake fluid corrodes the paint on the motorcycle body, so please take protection measures before starting to work. Prevent the fluid from overflowing from the cup when replacing the brake fluid. Do not mix different types of brake fluids.
	fluids.





Discharge air from the rear brake system and replace the brake fluid

Discharge air and replace the brake fluid according to the following procedure:

- 1. Open the cover of the upper brake pump, remove the rear lower brake pump, and place a special partition between brake pads.
- 2. Insert the drain hose to the lower brake pump drain bolt.
- 3. Tightly hold and then release the brake handle 3-5 times to exert force to the brake oil pipe (adjust the frequency of holding and releasing according to the actual situation).
- 4. Tightly hold and release the brake handle several times.
- 5. Loosen the drain bolt. When the brake handle has an obvious pinching feeling, quickly tighten the drain bolt to prevent brake fluid from flowing back along the pipeline.
- 6. Release the brake handle.
- 7. Pour the brake fluid into the cup of the upper brake pump.
- 8. Repeat the said Step 3-7 until the old fluid has been completely replaced with the new fluid, and the color of the fluid in the drain pipe is the same as that of the new fluid in the cup of the upper brake pump. When you feel the brake handle is hard, and no bubbles are generated from the cup of the upper brake pump cup, the drain bolt can be tightened to complete the operation.
- 9. After the operation is completed, install the cover of the upper brake pump, and check if the brake works normally.

Recommended brake fluid: DOT 3 brake fluid

Caution	 Put on protection gears before starting to work. The brake fluid corrodes the paint on the motorcycle body, so please take protection measures before starting to work. Prevent the fluid from overflowing from the cup when replacing the brake fluid. Do not mix different types of brake fluids.
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Bottom of the wear indication mark

Spot Inspection and Adjustment

Front brake pad

• When the front brake pad is worn such that it reaches the front brake pad lining indication mark, please replace the brake pad timely.

Thickness of the front brake pad lining: 3.0 mm (which is worn to the bottom of the indication mark.)

Caution Make sure to replace the left and right brake pads at the same time.

Rear brake pad

Perform the following spot inspection:

• When the front brake pad is worn to the rear brake pad lining indication mark, please replace the rear brake pad timely.

Thickness of the rear brake pad lining: 3.0 mm (which is worn to the bottom of the indication mark.)

Caution Make sure to replace the left and right brake pads at the same time.



Side stand

Check if the side stand can be released smoothly. If any abnormal situation is found, please repair or replace it timely.

Spot inspection of the side stand switch

Please see Page 119



Front fork

- 1. Place the motorcycle vertically on a flat and hard surface.
- 2. Perform the following spot inspection:
 - Inner tube

If there is any external damage or scratch , please replace the front fork assembly. Please refer to Page 83.

If there is any oil leakage, promptly replace the front fork assembly.

3. Inspect the front fork operation

Press the steering handlebar several times forcefully to make sure whether the front fork can be smoothly stretched or retracted. If there is any abnormal situation, please contact your local distributor for replacement of the front fork. Abnormal noises that do not affect using may occur after a long-time riding, but it is normal.



Rear shock absorber

- 1. Place the motorcycle vertically on a flat and hard surface.
- Perform the following spot inspection:
 If any oil leakage is found in the rear shock absorber, promptly replace the rear shock absorber.
- Inspect the rear shock absorber's operation
 Press the saddle several times to check if the saddle can rebound smoothly. If rebounding is abnormal, replace the rear shock absorber assembly according to the instructions in Page 88.



Changing front shock absorber hydraulic oil

1. Loosen the shock absorber sealing bolt. Remember to apply pressure to the bolt before removing it to prevent the spring from suddenly ejecting. Remove the spring.

Take note not to allow the spring from ejecting when loosening the bolt. Do **Warning** not directly face the both and shock absorber when disassembling the system, to avoid personal injury.



2. Place the shock absorber upside down and work it to remove the shock absorber fluid. Place it in an upside-down position for 5 minutes to remove all residual fluid.



3. Add about 57 mL of 46# hydraulic oil.

 Tighten the sealing bolt with a torque of about 35 N⋅m after placing the spring inside the shock absorber.

- Tire
 - 1. Perform the following spot inspection:
 - Tire pressure If the tire pressure exceeds the specified air pressure, adjust it to the specified value.

1-person riding:

Front tire: 200 kPa Rear tire: 200 kPa 2-person riding:

Front tire: 225 kPa

Rear tire: 225 kPa

- 2. Perform the following spot inspection:
 - If the tire surface is damaged or scratched, promptly replace it.

Wear limit value: 2 mm

3. Inspect the following contents.

Check the tire for cuts, cracks, exposed fabric or tire threads, or nails or other foreign objects embedded in the tire side or tread.

Also check the tire side walls for bulges or swelling.

■ Rim

Perform the following spot inspection:

• Rim

If the rim is damaged or deformed, promptly replace it.

1. Perform the following spot inspection:

Check if the rim is loose or swings. If so, promptly replace the rim bearing.









Spot inspection and adjustment of the steering column

- 1. Place the motorcycle vertically on a flat and hard surface.
- 2. Perform the following spot inspection:
 - a. Hold the steering handlebar and shake it from left to right to check the limit block.
 - b. Check if the handlebar and front wheel steering are in the same direction.
 - c. Hold the steering handlebar, and tightly hold and then press down the front brake to check if there is any gap.

If the steering handlebar is stuck or loose or shows a gap, adjust the steering handlebar. If the steering column is not in the same direction as the wheel, check the handlebar and shock absorber. If the steering column limit block is damaged or the steering column is deformed, replace the steering column.

- 3. Adjust the steering column gap.
 - a. Fix the lower adjusting nut ① with a crescent wrench, and completely loosen the upper fixing nut ②.
 - b. Loosen the lower adjusting nut with a crescent wrench, and turn the steering rod to adjust the gap.
 - c. Adjust and tighten the lower adjusting nut ① clockwise with your hands, and then loosen it counterclockwise by 45 degrees.
 - d. Fix the lower adjusting nut ① with a crescent wrench, and tighten the upper fixing nut ② to the specified torque.

After the steering column gap has been adjusted, check the left and right shock absorbers by turning the steering column to check if the steering column is loose or stuck. If yes, please check the upper and lower shaft washers and bearings. For information on how to inspect the front fork, please see Page 83.

Lock nut with four openings 58 N·m

Tighten the octagonal lock nut clockwise with a torque of $3-5 \text{ N} \cdot \text{m}$ (this is the torque value if the nut is adjusted by hand, and may vary according to the individual). Tighten the octagonal lock nut counterclockwise with a torque of $58 \text{ N} \cdot \text{m}$.

Replace the gear oil in the gearbox

- 1. Support the motorcycle at the side stand on a flat, hard surface.
- 2. Place the oil tray under the gearbox to collect the oil, remove the oil tank cap and drain bolt until the gear oil is completely drained.
- 3. Install the following parts.
 - Drain bolt

Tightening torque 25 N·m

- 4. Add oil.
 - Add 350 mL of gear oil to the gearbox.

Recommended gear oil GL5 80W-90

- 5. Install the following parts.
 - · Install the oil tank cap

Spot inspection and lubrication of various wiring harnesses

Place the motorcycle vertically on a flat and hard surface.

- 1. Perform the following spot inspection:
 - External pull cable

If the external pull cable is damaged, promptly replace it.

- 2. Perform the following spot inspection:
 - When the wiring harness does not operate smoothly, promptly lubricate it.

Spot inspection of the switch/light/signal

Check if all switches and lights work normally. If any abnormal situation is found, promptly repair it.



Drive belt

1. Perform a spot inspection of the following contents. Perform a spot inspection of the drive belt

A. Cracked outer teeth \rightarrow Replace it with a new one

B. Tooth surface defect \rightarrow Replace it with a new one

C. Worn convex surface \rightarrow Replace it with a new one

D. Damage caused by foreign objects entering the gears \rightarrow If the front end is damaged, please make a replacement.

E. Cracked inner tooth (fine cracks) \rightarrow The motorcycle can be ridden normally, but a spot inspection is required to check its operating status.

F. Small cracks (slight cracks) \rightarrow The motorcycle can be ridden normally, but a spot inspection is required to check its operating status.

G. Burrs on teeth \rightarrow The motorcycle can be ridden normally, but a spot inspection is required to check its operating status.

Wear on the inclined part (only the outer end is worn.)

 $H_{\cdot} \rightarrow$ The motorcycle can be ridden normally, but a spot inspection is required to check its operating status.





Adjust the drive belt tension

- 1. Perform the following spot inspection:
 - a. Point the sonic belt tension tester sensor at the belt.
 - b. Gently tap the belt with a screwdriver or a small metal rod.
 - c. Measure the vibration frequency of the belt.

When its vibration frequency exceeds the specified range, promptly adjust it .

Belt curvature: 55-65 Hz

- 2. Perform the following spot inspection:
 - a. Support the motorcycle at the side stand on a flat, hard surface.
 - b. Loosen the nut at the rear end of the rocker arm.
 - c. Loosen the adjusting bolt ② and ③ of the drive belt.
 - d. Adjust the belt tension through adjusting (2) and(3) until the specified value is reached.
 - e. Tighten and lock the adjusting nut ① until the specified torque is reached.
 - f. Tighten the nut ① at the rear end of the lower rocker arm until the specified torque is reached.

Nut at the rear end of the rear rocker arm: 35 N·m

Motorcycle fastening

Check if all the nuts, bolts and screws of the motorcycle have been fully tightened according to the specified torque factors.

For more information, please see Page 8.

Overview of exterior plastic parts



- 1. Rear-view mirror \rightarrow Page 32
- 2. Windshield \rightarrow Page 33
- 3. Tool box assembly \rightarrow Page 34
- 4. Handlebar shield assembly \rightarrow Page 36
- 5. Head cover panel \rightarrow Page 37
- 6. Front fender assembly \rightarrow Page 39
- 7. Seat bucket assembly \rightarrow Page 40
- 8. Passenger seat assembly \rightarrow Page 42
- 9. Left/right tail lining assembly \rightarrow Page 43
- 10. Tail cover panel assembly \rightarrow Page 44

- 11. Passenger seat front cover \rightarrow Page 46
- 12. Rear tail light and seat bucket enclosure assembly →Page 47
- 13. Mid-section cover panel assembly \rightarrow Page 49
- 14. Left/right guard panel assembly \rightarrow Page 50
- 15. Vent pipe assembly \rightarrow Page 54
- 16. Battery pack left/right cover assembly \rightarrow Page 56
- 17. Rear mud guard \rightarrow Page 58
- 18. License plate holder assembly →Page 59

Exterior Plastic Parts

Rear-view mirror



No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-66101-00	Left rear-view mirror	1	22
2	FW06-66102-00	Right rear-view mirror	1	22
Windshield



No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-11301-00	Windshield	1	
2	A06012-321-1P0	M6*12-Half round head-Hexagon socket screw	4	9

Tool box assembly



No.	Materials No.	Part name	Quantity	Torque (N·m)
1		Tool box assembly	1	
2	A05016-310	M5*16-Round head-Cross self-tapping screw	6	2
3	FW06-11406-00	handlebar lock cover	1	
4	A04020-310	M4*20-Round head-Cross self-tapping screw	2	1



No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-11401-00	Tool box	1	
2	FW06-11405-00	Toolbox bucket	1	
3	FW06-11402-00	Toolbox lid	1	
4	FW06-11404-00	Rotating fastener	1	
5	FW06-11407-00	Toolbox lid rotating connectors	1	
6	FW06-11403-00	Toolbox lid switch	1	
7	B04-2-ST4P2	M4 clip nut	2	
8	A04012-310	M4*12-Round head-Cross self-tapping screw	8	1

Handlebar shield assembly





 \cdot Tool box assembly $\rightarrow 34$

No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-11304-00	handlebar shield	1	
2	A04012-310	M4*12-Round head-Cross self-tapping screw	2	1

Head cover panel





 \cdot Handlebar shield assembly $\rightarrow 36$

No.	Materials No.	Part name	Quantity	Torque (N·m)
1		Head cover panel assembly	1	
2	A05016-310	M5*16-Round head-Cross self-tapping screw	4	2
3	A04012-310	M4*12-Round head-Cross self-tapping screw	2	1



 \cdot Headlight assembly and port model \rightarrow 109 \cdot Front turn signal light and port model \rightarrow 111

No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-11101-00	Left front end	1	
2	FW06-11102-00	Left front end spoiler	1	
3	FW06-11201-00	Right front end	1	
4	FW06-11202-00	Right front end spoiler	1	
5	FW06-11302-00	Front panel trim	1	
6	FW06-11303-00	Front panel	1	
7	B04-2-ST4P2	M4 clip nut	6	
8	A04012-310	M4*12-Round head-Cross self-tapping screw	9	1
9	A04012-710	M4*12-Half round head with the pad-Cross self-tapping screw	2	1

Front fender assembly



No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-16101-00	Front mud guard	1	
2	A06012-321-1P0	M6*12-Half round head-Hexagon socket screw	4	9
3	FW06-64101-00	Side reflector	2	
4	FW06-64104-00	Side reflector flat gasket	2	
5	FW06-64105-00	Side reflector nut	2	

Seat bucket assembly



No.	Materials No.	Part name	Quantity	Torque (N·m)
1		Seat bucket assembly	1	
2	FW06-14404-00	Seat bucket rubber pad bushing	2	
3	A06016-721-1P0	M6*16-Half round head with the pad-Hexagon socket screw	4	9
4	FW06-14403A-00	Seat bucket rubber gasket	1	



No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-14401-00	Seat bucket	1	
2	FW06-14402-00	Steel cover	1	
3	FW06-17100A-00	Main seat cushion	1	
4	FW06-17104-00	Seat rotation support	1	
5	FW06-17105-00	M6 Flange nut	3	9
6	FW06-17106-00	M8 Pin (1 thread pitch)	1	

Passenger seat assembly



No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-17200A-00	Passenger seat cushion	1	
2	A06016-721-1P0	M6*16-Half round head with the pad-Hexagon socket screw	2	9

Left/right tail lining assembly

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No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-14102-00	Left tail lining	1	
2	FW06-14202-00	Right tail lining	1	
3	FW06-FJ-001	Expansion screw	2	

Tail cover panel assembly





 $\begin{array}{l} \cdot \mbox{ Left/right tail lining assembly} \rightarrow 43 \\ \cdot \mbox{ Seat bucket assembly} \rightarrow 40 \\ \cdot \mbox{ Passenger seat assembly} \rightarrow 42 \end{array}$

No.	Materials No.	Part name	Quantity	Torque (N·m)
1		Tail cover panel assembly	1	
2	A06020-721-1P0	M6*20-Half round head with the pad-Hexagon socket screw	2	9
3	A05012-321-0P8	M5*12-Half round head-Hexagon socket screw	2	4



No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-14101-00	Left tail trim panel	1	
2	FW06-14201-00	Right tail trim panel	1	
3	FW06-14301-00	Rear tail bottom panel lining	1	
4	FW06-14302-00	Rear bottom panel	1	
5	A04012-310	M4*12-Round head-Cross self-tapping screw	5	1
6	A04012-710	M4*12-Half round head with the pad-Cross self-tapping screw	2	1

Passenger seat front cover





• Seat bucket assembly $\rightarrow 40$ • Passenger seat assembly $\rightarrow 42$

\cdot Passenger seat assembly \rightarrow 42	2
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No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-14303-00	Passenger seat front cover	1	
2	A05016-310	M5*16-Round head-Cross self-tapping screw	2	2

Rear tail light and seat bucket enclosure assembly





 \cdot Tail cover panel assembly \rightarrow 44 \cdot Passenger seat front cover \rightarrow 46

No.	Materials No.	Part name	Quantity	Torque (N·m)
1		Seat bucket enclosure assembly	1	
2	A04012-310	M4*12-Round head-Cross self-tapping screw	6	1





 \cdot Tail light and port model \rightarrow 112

No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-14501-00	Seat bucket left trim panel	1	
2	FW06-14502-00	Seat bucket right trim panel	1	
3	B04-2-ST4P2	M4 clip nut	4	

Mid-section cover panel assembly





 \cdot Tool box assembly \rightarrow 34 \cdot Rear tail light and seat bucket enclosure assembly \rightarrow 47

No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-15001-00	Mid-section cover	1	
2	A05014-321-0P8	M5*14-Half round head-Hexagon socket screw	2	4

Left/right guard panel assembly





 \cdot Mid-section cover panel assembly $\rightarrow 49$

No.	Materials No.	Part name	Quantity	Torque (N·m)
1		Left guard panel assembly	1	
2	A05012-321-0P8	M5*12-Half round head-Hexagon socket screw	5	4
3	A04012-310	M4*12-Round head-Cross self-tapping screw	2	1
4	A06012-321-1P0	M6*12-Half round head-Hexagon socket screw	1	9





 \cdot Mid-section cover panel assembly $\rightarrow 49$

No.	Materials No.	Part name	Quantity	Torque (N·m)
1		Rightguard panel assembly	1	
2	A05012-321-0P8	M5*12-Half round head-Hexagon socket screw	5	4
3	A04012-310	M4*12-Round head-Cross self-tapping screw	2	1
4	A06012-321-1P0	M6*12-Half round head-Hexagon socket screw	1	9



No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-12001-00	Left front trim panel	1	
2	FW06-12002-00	Left front trim panel lining	1	
3	FW06-12003-00	Left mid-section guard panel	1	
4	FW06-12004-00	Left mid-section guard panel lining	1	
5	FW06-12006-00	Left body vent	1	



No.	Materials No.	Part name	Quantity	Torque (N·m)
6	FW06-13001-00	Right front trim panel	1	
7	FW06-13002-00	Right front trim panel lining	1	
8	FW06-13003-00	Right mid-section guard	1	
9	FW06-13004-00	Right mid-section guard lining	1	
10	FW06-13006-00	Right body vent	1	
11	A04012-310	M4*12-Round head-Cross self-tapping screw	30	1
12	B04-2-ST4P2	M4 clip nut	8	

Vent pipe assembly





 \cdot Left/right guard panel assembly \rightarrow 50

No.	Materials No.	Part name	Quantity	Torque (N·m)
1		Vent pipe assembly	1	
2	A04012-310	M4*12-Round head-Cross self-tapping screw	4	1



No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-16201-00	Front shield	1	
2	FW06-16202-00	Vent pipe	1	
3	A04012-310	M4*12-Round head-Cross self-tapping screw	4	1
4	B04-2-ST4P2	M4 clip nut	6	

Battery pack left/right cover assembly





 \cdot Vent pipe assembly $\rightarrow 54$

No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-12005-00	Battery pack left cover	1	
2	A05012-321-0P8	M5*12-Half round head-Hexagon socket screw	2	4
3	B04-2-ST4P2	M4 clip nut	2	





 \cdot Vent pipe assembly $\rightarrow 54$

No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-13005-00	Battery pack right cover	1	
2	A05012-321-0P8	M5*12-Half round head-Hexagon socket screw	2	4
3	B04-2-ST4P2	M4 clip nut	2	

Rear mud guard



No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-16305-00	Rear mud guard	1	
2	A05012-321-0P8	M5*12-Half round head-Hexagon socket screw	3	4

License plate holder assembly



No.	Materials No.	Part name	Quantity	Torque (N·m)
1		License plate holder assembly	1	
2	A08025-421-1P25	M8*25-Cup head-Hexagon socket screw (1.25 thread pitch)	3	22
3	A04012-310	M4*12-Round head-Cross self-tapping screw	4	

MEMO

Reduction gearbox

6





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 \cdot Rear wheel \rightarrow 72

 \cdot When the reduction gearbox is disassembled, loosen the belt fixing nut (1) and (3) and the adjusting bolt (2) connected to the rear end of the lower rocker arm.

Power system

No.	Materials No.	Part name	Quantity	Torque (N·m)
1		Reduction gearbox assembly	1	
2	A14110-421-2P0N	M14*110-Cup head-Hexagon socket screw (2 thread pitch)	1	65
3	A14075-421-2P0N	M14*75-Cup head-Hexagon socket screw (2 thread pitch)	1	65
4	ZT14-22-68	Upper rocker arm shaft sleeve (14-22-68)	1	
5	ZT14-22-30	Shaft sleeve (14-22-30)	1	
6	ZT15-25-05	Shaft sleeve (15-25-5)	2	
7	XJB22-2P5	O-ring (22*2.5 outer diameter)	2	
8	A08025-421-1P25	M8*25-Cup head-Hexagon socket screw (1.25 thread pitch)	3	25
9	B10-5-1P5	M10 Nylon flange self-locking nut (1.5 thread pitch)	1	35
10	B08-0-1P25	M8 Flange nut	1	
11	A08030-101-1P25	M8*30-External hexagon socket screw	1	25
12	A08020-001-1P25N	M8*20-Flange head-External hexagon socket screw (1.25 thread pitch)	2	22
13		License plate holder assembly	1	
14	FW06-42202A-00	Rear caliper	1	
15	A10035-101-1P5	M10*35-External hexagon socket screw (1.5 thread pitch)	1	



No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-22205-00	Reduction gearbox internal cover	1	
2	ZCA6205-2RS	Bearing (6205-2RS-25-52-15)	2	
3	ZCA6004	Bearing (6004-20-42-12)	2	
4	YF305512	Nitrile rubber oil seal (30*55*12)	1	
5	FW06-22304-00	Tertiary shaft	1	
6	FW06-22305-00	Tertiary shaft teeth	1	
7	FW06-22203-00	Reduction gearbox mid-section cover	1	
8	ZCA6304	Bearing (6304-20-52-15)	1	
9	ZCA6006	Bearing (6006-30-55-13)	1	
10	YF304708	Nitrile rubber oil seal (30*47*8)	1	
11	FW06-22302A-00	Secondary shaft assembly	1	
12	ZK25	Circlip-25	2	
13	FW06-22201-00	Reduction gearbox external cover	1	
14	ZCA6204	Bearing (6204-20-47-14)	1	
15	FW06-22301-00	Primary shaft	1	
16	FW06-22103-00	Woodruff key	1	
17	FW06-22101-00	Pulley	1	
18	FW06-22104-00	Pulley lock nut	1	
19	FW06-22202-00	External and mid-section reduction gearbox gasket	1	
20	FW06-22204-00	Mid-section and internal reduction gearbox gasket	1	

Power system

No.	Materials No.	Part name	Quantity	Torque (N·m)
21	FW06-FJ-005	Positioning pin	4	
22	FW06-FJ-009	M14*20-Oil port screw (1.5 thread pitch)	1	
23	FW06-FJ-003	Oil plug (M12*1.5)	1	25
24	D12201P5	Flat gasket (12 inner diameter-20 outer diameter-1.5 thickness)	1	
25	FW06-FJ-004	Air chamber plug	1	
26	FW06-FJ-006	Rubber tube sleeve	1	
27	FW06-FJ-007	Binding hook	1	
28	FW06-FJ-008	Rubber tube sleeve clamp	1	
29	A06030-001-1P0	M6*30-Flange head-External hexagon socket screw	10	22
30	A06060-001-1P0	M6*60-Flange head-External hexagon socket screw	2	
31	A06008-321-1P0	M6*8-Half round head-Hexagon socket screw	1	

Motor assembly





[X]

- \cdot Left/right guard panel assembly $\rightarrow 50$ \cdot Reduction gearbox $\rightarrow 61$
- · Rear mud guard \rightarrow 58
- \cdot Open the MCU cover, disconnect the MCU connection line, and wrap the power battery's positive and negative wires and three-phase wire connectors with insulation tape.

No.	Materials No.	Part name	Quantity	Torque (N·m)
1		Motor-Footrest support assembly	1	
2	A10230-421-1P5	M10*230-Cup head-Hexagon socket screw (1.5 thread pitch)	2	40
3	FW06-FJ-010	Custom nut (1.5 thread pitch)	2	
4	A10070-001-1P25	M10*70-Flange head-External hexagon socket screw (1.25 thread pitch)	1	40
5	A10020-001-1P25	M10*20-Flange head-External hexagon socket screw (1.25 thread pitch)	2	40

Power system



Power system

No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-21101-00	Motor	1	
2	FW06-65101-00	Left footrest support	1	
3	FW06-65102-00	Right footrest support	1	
4	FW06-22103-00	Woodruff key	1	
5	FW06-22101-00	Pulley	1	
6	FW06-22104-00	Pulley lock nut	1	
7	FW06-22102-00	Belt	1	
8	FW06-33201A-00	Upper rocker arm	1	
9		Lower rocker arm	1	
10	ZT10-20-35	Shaft sleeve (10-20-35)	2	
11	XJB22-2P5	O-ring (22*2.5 outer diameter)	4	
12	A08045-421-1P25N	M8*45-Cup head-Hexagon socket screw (1.25 thread pitch)	3	22
13	A08055-421-1P25N	M8*55-Cup head-Hexagon socket screw (1.25 thread pitch)	1	22
14	A10050-421-1P5N	M10*50-Cup head-Hexagon socket screw (1.5 thread pitch)	4	40

MEMO
Front wheel

7



No.	Materials No.	Part name	Quantity	Torque (N·m)
1		Front wheel assembly	1	
2	ZT10-20-20	Front wheel shaft sleeve (20 outer diameter- 10 inner diameter-20 length)	2	
3	A10235-001-1P25	Front wheel rotation shaft (M10*235-Flange head- 1.25 thread pitch)	1	
4	B10-5-1P25	M10 Nylon flange self-locking nut (1.25 thread pitch)	1	40

2



No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-34200-00	Front tire	1	
2	FW06-34101-00	Front wheel hub 5° 2.5MT - set	1	
3	FW06-41301-00	Front disc brake	1	
4	FW06-41203-00	ABS encoding disc	1	
5	FW06-FJA-011	Valve	1	
6	A08024-621-1P25N	M8*24-Disc brake screw (1.25 thread pitch)	3	35
7	A06012-321-1P0	M6*12-Half round head-Hexagon socket screw	5	9



Front wheel speed sensor





 \cdot Head cover panel $\rightarrow 37$

No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-41202-00	ABS sensor	1	
2	A06016-421-1P0	M6*16-Cup head-Hexagon socket screw	1	9

Rear wheel



No.	Materials No.	Part name	Quantity	Torque (N·m)
1		Rear wheel assembly	1	
2	FW06-16304-00	Rear wheel hubcap	1	
3	FW06-35102-00	Hub cap fastener	1	
4	B16-0-1P5	M16 Flange head nut (1.5 thread pitch)	1	120



No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-35101-00	Rear wheel hub 5° 3.5MT	1	
2	FW06-35200-00	Rear tire	1	
3	FW06-42201-00	Rear disc brake	1	
4	A08024-621-1P25N	M8*24-Disc brake screw (1.25 thread pitch)	3	35
5	FW06-FJA-011	Valve	1	

Front brake

Front brake handle





• Rear-view mirror \rightarrow 32

- $^{\cdot}$ Head cover panel ightarrow 37
- · Align the front upper brake pump bracket with the holes on the handlebar when installing it.

No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-41102-00	Right brake oil cylinder	1	
2	FW06-41103-00	Right brake handle	1	
3	FW06-41106-00	Pump end cap	1	
4	FW06-41107-00	Pump end cap screw	2	25
5	FW06-41405-00	Copper washer	2	
6	FW06-41404-00	Oil-pass bolt	2	
7	FW06-41401-00	Front brake upper oil pipe	1	
8	FW06-42105-00	M6*30-External hexagon socket screw	1	
9	FW06-42106-00	M6 Nut	1	

Front brake caliper





 \cdot Rear-view mirror $\rightarrow 32$ \cdot Head cover panel $\rightarrow 37$

No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-41302A-00	Front caliper	1	
2	A10020-001-1P25N	M10*20-Flange head-External hexagon socket screw (1.25 thread pitch)	2	35
3	FW06-41404-00	Oil-pass bolt	1	
4	FW06-41405-00	Copper washer	2	
5	FW06-41402-00	Front brake lower oil pipe	1	

Front brake pad



No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-41303-00	Front caliper outside brake pad	1	
2	FW06-41304-00	Front caliper inside brake pad	1	
3	FW06-41302-00	Front caliper piston	1	
4	FW06-41305-00	Type B clamp	2	
5	FW06-41306-00	Pin	1	



Rear brake

Rear brake handle



 \cdot Rear-view mirror \rightarrow 32

X

- \cdot Head cover panel \rightarrow 37
- \cdot Align the rear upper brake pump bracket with the holes on the handlebar when installing it.

No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-42103-00	Left brake oil cylinder	1	
2	FW06-42104-00	Left brake handle	1	
3	FW06-41106-00	Pump end cap	1	
4	FW06-41107-00	Pump end cap screw	2	25
5	FW06-41405-00	Copper washer	2	
6	FW06-41404-00	Oil-pass bolt	2	
7	FW06-42301-00	Rear brake oil pipe	1	
8	FW06-42105-00	M6*30-External hexagon socket screw	1	
9	FW06-42106-00	M6 Nut	1	

Rear brake caliper





 \cdot Rear-view mirror \rightarrow 32

 \cdot Battery pack left/right cover assembly $\rightarrow 56$

No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-42202A-00	Rear caliper	1	
2	A08020-001-1P25N	M8*20-Flange head-External hexagon socket screw (1.25 thread pitch)	2	22
3	FW06-42303-00	Oil-pass bolt - rear caliper	1	
4	FW06-41405-00	Copper washer	3	
5	FW06-41402-00	Rear brake oil pipe	1	
6	FW06-42302-00	Bushing	1	



No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-42203-00	Rear caliper outside brake pad	1	
2	FW06-42204-00	Rear caliper inside brake pad	1	
3	FW06-42202-00	Rear caliper piston	1	

Handlebar





- \cdot Head cover panel \rightarrow 37
- \cdot Windshield \rightarrow 33
- \cdot Rear-view mirror \rightarrow 32
- \cdot ICM (Instrument Cluster Module) \rightarrow 101
- During installation, align the convex surface of the left and right combination switch, and front and rear brake pump bracket with the holes on the handlebar.

No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-32201-00	Handlebar	1	
2	FW06-32202-00	Lower mount base	1	
3	A10050-001-1P25	M10*50-Flange head-External hexagon socket screw (1.25 thread pitch)	1	45
4	B10-5-1P25	M5 Nylon flange self-locking nut	1	
5	FW06-32203-00	Upper mount	1	
6	A08025-321-1P25	M8*25-Half round head-Hexagon socket screw (1.25 thread pitch)	4	27
7	C08122	Spring gasket (8 inner diameter-12 outer diameter-2 thickness)	4	
8	D08141	Flat gasket (8 inner diameter-14 outer diameter-1 thickness)	4	
9	FW06-32204-00	Locking block	1	
10	FW06-32205-00	Windshield support - Left	1	
11	A05012-321-0P8	M5*12-Half round head-Hexagon socket screw	4	
12	FW06-32206-00	Windshield support - Right	1	
13	FW06-41102-00	Right brake oil cylinder	1	
14	FW06-41106-00	Pump end cap	2	
15	FW06-41107-00	Pump end cap screw	4	
16	FW06-42103-00	Left brake oil cylinder	1	
17	FW06-41101-00	Right combination switch	1	
18	FW06-41108-00	Combination switch screw	4	
19	FW06-42101-00	Left combination switch	1	
20	FW06-42102-00	Left handle grip	1	

Steering column





 \cdot Handlebar \rightarrow 80

 \cdot Front fork \rightarrow 83

 \cdot For detailed procedure involving the steering column, please refer to Page 28

No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-32103-00	Steering rod	1	
2	FW06-32113-00	Bottom shaft washer	1	
3	FW06-32112-00	Bottom holder (30 mm inner diameter)	1	
4	FW06-32109-00	Upper holder (25 mm inner diameter)	1	
5	FW06-32108-00	Upper shaft ring	1	
6	FW06-32107-00	Lock nut with four openings (Φ25-1 thread pitch)	1	58
7	FW06-32106-00	Octagonal lock nut (Φ25-1 thread pitch)	1	58
8	FW06-32105-00	Dust cover	1	

Front fork





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- \cdot Head cover panel $\rightarrow 37$
- \cdot Front fender assembly \rightarrow 39
- \cdot Front wheel $\rightarrow 69$
- Align the groove with the upper bolts on the steering rod when installing the left and right front shock absorbers.

No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-32101-00	Left shock absorber	1	
2	FW06-32102-00	Right shock absorber	1	
3	FW06-32104-00	Oil pipe clamp	1	
4	FW06-41202-00	ABS sensor	1	
5	FW06-41302A-00	Front caliper	1	
6	A10045-001-1P25	A10045-001-1P25 M10*45-Flange head-External hexagon socket screw (1.25 thread pitch-half gear teeth)		40
7	A06016-421-1P0	5-421-1P0 M6*16-Cup head-Hexagon socket screw		9
8	A10020-001-1P25N M10*20-Flange head-External hexagon socket screw (1.25 thread pitch)		2	35

Head support



Body Structure

No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-31400-00	Head chassis assembly	1	
2	A08025-421-1P25 M8*25-Cup head-Hexagon socket screw (1.25 thread pitch)		1	
3	B08-0-1P25	M8 Flange nut	1	
4	A06012-321-1P0	2-321-1P0 M6*12-Half round head-Hexagon socket screw		
5	FW06-31410-00	Head support plug	2	

Side stand





 \cdot During installation, keep the long opening of the spring upwards.

No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-62102-00	Stand	1	
2	FW06-62103-00	Side stand double spring	1	
3	FW06-62104-00	Side stand switch	1	
4	FW06-FJ-014	Side stand screw	1	30
5	A06016-511-1P0	M6*16-Round head-Cross screw	1	9

Main, auxiliary footrest





 \cdot During installation, keep the long opening of the spring upwards.

No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-65101-00	Left footrest support	1	
2	FW06-65102-00	Right footrest support	1	
3	FW06-63101-00	Left main footrest	1	
4	FW06-63103-00	Left auxiliary footrest	1	
5	FW06-63102-00	Right main footrest	1	
6	FW06-63104-00	Right auxiliary footrest	1	
7	FW06-63105-00	Main footrest pin	2	
8	FW06-63106-00	Main footrest spring	2	
9	FW06-63107-00	Footrest split damping ring	4	
10	FW06-63108-00	Auxiliary footrest pin	2	
11	FW06-63109-00	Auxiliary footrest spring	2	
12	FW06-63110-00	Auxiliary footrest ball	2	
13	FW06-63111-00	Auxiliary footrest space	2	

Rear shock absorber





- \cdot Rear mud guard \rightarrow 58
- \cdot Remove the first three screws on the seat bucket enclosure.

No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-33101-00	Rear shock absorber	1	
2	A10070-001-1P25	M10*70-Flange head-External hexagon socket screw (1.25 thread pitch)	1	40
3	A10120-001-1P25	M10*120-Flange head-External hexagon socket screw (1.25 thread pitch)	1	
4	B10-5-1P25	M10 Nylon flange self-locking nut (1.25 thread pitch)	1	40



Upper rocker arm





 \cdot Rear mud guard \rightarrow 58 \cdot Reduction gearbox \rightarrow 61

No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-33201A-00	Upper rocker arm	1	
2	A10070-001-1P25	M10*70-Flange head-External hexagon socket screw (1.25 thread pitch)	1	40
3	A10050-421-1P5N	M10*50-Cup head-Hexagon socket screw (1.5 thread pitch)	2	40
4	ZT10-20-35	Shaft sleeve (10-20-35)	1	
5	XJB22-2P5	O-ring (22*2.5 outer diameter)	2	

Lower rocker arm





· Reduction gearbox \rightarrow 61

No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-33301A-00	Lower rocker arm front section	1	
2	FW06-33302A-00	Lower rocker arm rear section	1	
3	A10035-101-1P5	M10*35-External hexagon socket screw (1.5 thread pitch)	1	
4	B10-5-1P5	M10 Nylon flange self-locking nut (1.5 thread pitch)	1	35
5	A08030-101-1P25	M8*30-External hexagon socket screw	1	
6	B08-0-1P25	M8 Flange nut	1	
7	ZT10-20-35	Shaft sleeve (10-20-35)	1	
8	XJB22-2P5	O-ring (22*2.5 outer diameter)	2	
9	A10050-421-1P5N	M10*50-Cup head-Hexagon socket screw (1.5 thread pitch)	2	40

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EV (Electric vehicle) system



Troubleshooting when the motorcycle fails to be operated or ridden

1. Check the Power-off switch



OBD and port model



No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-53401-00	OBD interface	1	
2	A05012-321-0P8	M5*12-Half round head-Hexagon socket screw	2	4





List of diagnostic trouble codes

Diagnostic trouble code (DTC)	Function fault	Symptom/fault protection (self-protection) function	DTC Conditions	
200	Battery charging overcurrent fault	Disconnect the relay, and cut off the battery charging circuit	The battery charging current is greater than 69.5 A and lasts 5s	
201	Battery discharging overcurrent fault	VCU notifies MCU to limit current by 30%. When a serious overcurrent fault occurs, the user should stop the motorcycle nearby and turn it off until this fault is resolved.	The battery discharge output current is too large (moderate overcurrent fault if the current is >156.6 A for 5S continuously, and serious overcurrent fault if the current is >174 A for 1S)	
202	Battery undervoltage fault	Disconnect the discharging circuit	The battery voltage is too low, and the single cell voltage is below 2.7 V (if the undervoltage is less than 2.5 V, the cell will be severely damaged, and the battery pack will be locked and can only be recovered through the host computer)	
210	Controller overcurrent fault	The controller is turned off	When the actual output current is > 630 A/ the controller is damaged	
211	Controller overvoltage fault	The controller is turned off	The input voltage of the controller bus exceeds the permitted range (>115 V)	
212	Motor Hall fault	The controller is turned off	The feedback signal of the motor position sensor is abnormal	
213	Speed-control turning handle fault	After a fault occurs, VCU shields the turning handle control, and the motorcycle will continue to glide	When the power supply voltage of the turning handle is ≠ 5V, the resistor in the VCU turning handle circuit will become ineffective	
203	Battery discharging overheating fault	VCU notifies MCU to limit current by 30%. The user should stop the motorcycle nearby and turn it off until this fault is resolved.	The battery temperature is higher than 55°C	
204	Battery discharging low- temperature protection	VCU notifies MCU to limit current by 30%. The user should stop the motorcycle nearby and turn it off until this fault is resolved.	The battery temperature is lower than -20°C	
205	The temperature of the battery pack exceeds the permitted measurement range	VCU notifies MCU to limit current by 30%. The user should stop the motorcycle nearby and turn it off until this fault is resolved.	Invalid temperature measurement	
206	Switch temperature fault involving the battery pack MOS tube	VCU notifies MCU to limit current by 30%. The user should stop the motorcycle nearby and turn it off until this fault is resolved.	The battery pack MOS temperature is higher than 85°C	
214	Controller over- temperature fault	The controller is turned off	Controller overheating (>100°C)	
215	Motor over-temperature fault	The controller is turned off	Motor overheating (>135°C)	
207	Battery pack communication fault	During the operation, the fault is reported to VCU without power cut-off. If this fault occurs during the power- on process, the power-on operation cannot be carried out normally.	 Battery internal communication fault: the single cell voltage data and temperature data are lost. Battery and VCU communication fault 	
216	Controller communication fault	The controller is turned off	MCU-VCU communication timeout (50ms without any VCU command received)	
217	The controller temperature sensor exceeds the specified range	The controller is turned off	The sensor experiences an open circuit or short circuit/the ambient temperature of the controller is abnormal	
208	The insulation resistance is too low	Report this case to VCU with record made	If the insulation resistance is $\leq 100\Omega/V$, and a fault occurs before power-on, the battery pack relay will not engage, so the motorcycle cannot be ridden. If a fault occurs after power-on, the relay cannot be disconnected as it has been engaged	

Diagnos-Diagnotic trousis timina Symptom/fault protection No. **Function fault** function ble code В Α (DTC) The ABS operation is stopped, the fault 1 C0020 ASIC chip fails to work properly 0 0 light is lit on, and DTC is saved The ABS operation is stopped, the fault C0022 2 ASIC chip fails to work properly 0 0 light is lit on, and DTC is saved The ABS operation is stopped, the fault 3 C0024 ASIC chip fails to work properly 0 light is lit on, and DTC is saved The ABS operation is stopped, the fault 4 C0026 ASIC chip fails to work properly 0 0 light is lit on, and DTC is saved The wheel speed signal fails to be acquired The ABS operation is stopped, the fault 5 C0030 0 0 light is lit on, and DTC is saved normally The ABS operation is stopped, the fault ROM fault C0032 6 \cap light is lit on, and DTC is saved The ABS operation is stopped, the fault 7 C0033 RAM fault 0 light is lit on, and DTC is saved The ABS operation is stopped, the fault 8 C0035 MCU fails to work properly 0 0 light is lit on, and DTC is saved 9 C0039 EEPROM data is abnormal 0 DTC is saved The ABS operation is stopped, the fault 10 C0040 The stack overflows 0 light is lit on, and DTC is saved 11 C0041 The hardware is reset DTC is saved 0 The coil switch tube experiences an open circuit The ABS operation is stopped, the fault 12 C0044 0 0 or over-current or is grounded light is lit on, and DTC is saved The ABS operation is stopped, the fault 13 C0045 The coil switch tube is broken down (short circuit) light is lit on, and DTC is saved The ABS operation is stopped, the fault C0046 14 The coil switch tube has a leakage current 0 0 light is lit on, and DTC is saved The ABS operation is stopped, the fault C0051 15 Primary undervoltage of the battery 0 0 light is lit on, and DTC is saved The ABS operation is stopped, the fault C0052 16 Secondary undervoltage of the battery 0 0 light is lit on, and DTC is saved The ABS operation is stopped, the fault C0053 17 Primary overvoltage of the battery 0 0 light is lit on, and DTC is saved The ABS operation is stopped, the fault 18 C0054 Secondary overvoltage of the battery 0 0 light is lit on, and DTC is saved Undervoltage or overvoltage fault of the charge The ABS operation is stopped, the fault 19 C0055 0 light is lit on, and DTC is saved pump Poor connection of the pump motor or open circuit The ABS operation is stopped, the fault 20 C0070 0 0 light is lit on, and DTC is saved or low voltage at the power supply side The ABS operation is stopped, the fault C0071 21 Open circuit of the pump motor 0 0 light is lit on, and DTC is saved The switch tube of the pump motor is broken The ABS operation is stopped, the fault C0072 22 0 0 down (short circuit) light is lit on, and DTC is saved The switch tube of the pump motor experiences The ABS operation is stopped, the fault C0074 23 0 light is lit on, and DTC is saved an open circuit or over-current, or is grounded

List of diagnostic trouble codes

No. Diagnos- tic trou-		Function fault		gno- ming	Symptom/fault protection
	ble code (DTC)		Α	В	function
24	C0075	The pump motor is blocked	0	0	The ABS operation is stopped, the fault light is lit on, and DTC is saved
25	C0082	The high end of the front wheel speed sensor is grounded, or its high end and low end are connected to each other	0	0	The ABS operation is stopped, the fault light is lit on, and DTC is saved
26	C0083	The high end of the front wheel speed sensor is connected to the power supply, or the wheel speed sensor has an open circuit	0	0	The ABS operation is stopped, the fault light is lit on, and DTC is saved
27	C0086	The wheel speed is lost at high speed		0	The ABS operation is stopped, the fault light is lit on, and DTC is saved
28	C0088	Wheel speed noise		0	The ABS operation is stopped, the fault light is lit on, and DTC is saved
29	C0120	The negative end of the front wheel normally-open (NO) coil is connected to the power supply, or its positive end is connected to its negative end		0	The ABS operation is stopped, the fault light is lit on, and DTC is saved
30	C0121	The front wheel NO coil is grounded, or the coil has an open circuit		0	The ABS operation is stopped, the fault light is lit on, and DTC is saved
31	C0130	The negative end of the front wheel normally- closed (NC) coil is connected to the power supply, or its positive end is connected to its negative end		0	The ABS operation is stopped, the fault light is lit on, and DTC is saved
32	C0131	The front wheel NC coil is grounded, or the coil has an open circuit		0	The ABS operation is stopped, the fault light is lit on, and DTC is saved
33	C0200	CAN bus off-line fault	0	0	DTC is saved
34	C0201	CAN passive error fault	0	0	DTC is saved
35	C0210	The alarm light output is connected to the power supply	0	0	DTC is saved
36	C0211	The alarm light output is grounded or experiences an open circuit	0	0	DTC is saved
37	C0230	The motorcycle speed output is grounded or experiences an open circuit	0	0	DTC is saved
38	C0231	The motorcycle speed output is connected to the power supply	0	0	DTC is saved

VCU (Vehicle Control Unit)

- Control of smart key system
- Provide the power supply of the 12 V for ICM, MCU and ABS modules
- Control the lighting and signal systems

System diagram



Position and Disassembly/Assembly





 \cdot Head cover panel $\rightarrow 37$

No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-52401-00	Vehicle Control Unit (VCU)	1	
2	FW06-70001-00	Main wiring harness	1	
3	A04012-310	M4*12-Round head-Cross self-tapping screw	2	1

Port model



(VCU side/positive terminal)

(VCU side/positive terminal)

MCU (Motor Control Unit)

• Receive VCU signals to control the motor operation

System diagram (to control the motor operation with the handlebar)



Electric systemPosition and Disassembly/Assembly





 \cdot Battery pack left/right cover assembly $\rightarrow 56$

No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-52202-00	MCU	1	
2	A06025-001-1P0	M6*25-Flange head-External hexagon socket screw	4	9
3	A03012-210	M3*12-Recessed head-Cross self-tapping screw	8	

Port model



TE 770680-1 23-strand connector (MCU side/positive terminal)



DJ 70816Y-1.8-21 8-strand connector (MCU side/positive terminal)

ICM (Instrument Cluster Module)

System diagram



Electric systemPosition and Disassembly/Assembly



 \cdot Head cover panel $\rightarrow 37$ \cdot Windshield $\rightarrow 33$

No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-53101-00	Meter	1	
2	XJA08-18-03	Rubber gasket (8-18-3)	3	
3	B05-5-0P8	M5 Nylon flange self-locking nut	3	4

Port model



Meter DJ7041Y-2.3-11



Battery/charging system

Charging system



Electric systemPosition and Disassembly/Assembly





 \cdot Head cover panel $\rightarrow 37$ \cdot VCU (Vehicle Control Unit) $\rightarrow 97$

No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-52603-00	Battery strap	1	
2	FW06-52601-00	12 V Battery	1	
3	FW06-52602-00	Battery-mounting base	1	
4	A05012-321-0P8	M5*12-Half round head-Hexagon socket screw	2	4


*If there is irregular loss of battery power after the vehicle is inactive, please check whether the loss of power relates to the power battery. If the power battery is found to have normal loss, check whether there is abnormal loss for the reserve battery.

DC-DC

System diagram



Position and Disassembly/Assembly



No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-52201-00	DC	1	
2	A05012-321-0P8	M5*12-Half round head-Hexagon socket screw	2	4



Lighting system

System diagram



Headlight assembly and port model





 \cdot Head cover panel \rightarrow 37

* Adjust the headlight illumination height. It is turned clockwise to raise the illumination height, and it is turned counterclockwise to lower the illumination height.

No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-51101-00	Headlight	1	
2	A04012-310	M4*12-Round head-Cross self-tapping screw	6	1
3	B04-2-ST4P2	M4 clip nut	2	



Headlight DJ7041Y-2.3-21

Headlight dimming



Front turn signal light and port model





 \cdot Head cover panel $\rightarrow 37$

No.	Materials No.	Part name	Quantity	Torque (N·m)
1		Head cover panel	1	
2	FW06-51501-00	Front turn signal light	2	
3	FW06-51502-00	Turn signal light flat gasket	2	
4	FW06-51503-00	Turn signal light spring gasket	2	
5	FW06-51504-00	Turn signal light nut	2	30



Left and right turn 02T-JWPF-VSLE-S

Tail light and port model



No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-51201-00	Rear tail light	1	
2		Seat bucket enclosure assembly	1	
3	A04012-310	M4*12-Round head-Cross self-tapping screw	2	
4	B04-2-ST4P2	M4 clip nut	3	
5	A05016-310	M5*16-Round head-Cross self-tapping screw	1	



Tail light DJ7031Y-1.8-21



 \cdot Rear tail light and seat bucket enclosure assembly $\rightarrow 47$

Rear turn signal light and port model



No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-16301-00	License plate holder	1	
2	FW06-51601-00	Rear turning signal light	2	
3	FW06-51502-00	Turn signal light flat gasket	2	
4	FW06-51503-00	Turn signal light spring gasket	2	
5	FW06-51504-00	Turn signal light nut	2	30
6	FW06-16303-00	License plate holder bottom cover	1	
7	A04012-310	M4*12-Round head-Cross self-tapping screw	4	1



Left and right turn 02T-JWPF-VSLE-S

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Rear license plate light and port model



No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-16301-00	License plate holder	1	
2	FW06-65301-00	License plate-installation support arm	1	
3	FW06-65302-00	Rear fender reinforced panel	1	
4	A04012-310	M4*12-Round head-Cross self-tapping screw	3	1
5	A05012-321-0P8	M5*12-Half round head-Hexagon socket screw	1	4
6	A06012-321-1P0	M6*12-Half round head-Hexagon socket screw	2	9
7	B04-2-ST4P2	M4 clip nut	1	



License plate light DJ7026-2-11



 \cdot License plate holder assembly $\rightarrow 59$

 \cdot Rear turn signal light and port model \rightarrow 113

Other components

Left combination switch and port model



No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-42101-00	Left combination switch	1	
2	FW06-41108-00	Combination switch screw	2	



Left combination switch DJ7091Y-2.3-21

Right combination switch and port model



No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-41101-00	Right combination switch	1	
2	FW06-41108-00	Combination switch screw	2	



Turning handle DJ7032-2.3-21



Right combination switch DJ7091Y-2.3-11

Horn and port model



No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-51401-00	Horn	1	
2	A06012-321-1P0	M6*12-Half round head-Hexagon socket screw	1	9





 \cdot Head cover panel \rightarrow 37

Electric systemBrake switch and port model



Black



Brake 99251BS-2



 \cdot Windshield \rightarrow 33

 \cdot Head cover panel \rightarrow 37

Side stand switch and port model





Side stand switch DJ7026-2-11



 \cdot Left/right guard panel assembly $\rightarrow 50$

Power-off switch



No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-52501-00	Power-off protection switch	1	

Charging port (USB) and port model



No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-11401-00	Tool box	1	
2	FW06-53301-00	USB interface	1	



USB SM-2P Connector



 \cdot Tool box assembly $\rightarrow 34$

Electric systemCharging port (vehicle) and port model



No.	Materials No.	Part name	Quantity	Torque (N·m)
1		Tool box assembly	1	
2	FW06-52301-00	Charging port	1	
3	A04020-310	M4*20-Round head-Cross self-tapping screw	2	3
4	B04-5-0P7	M4 Nylon flange tightening nut	2	



Charging port - Signal port DJ7041Y-2.3-21



Charging port - Current port DJ7021F-6.3-21

Smart key

System diagram



Position and Disassembly/Assembly





 \cdot Tool box assembly $\rightarrow 34$

No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-53201-00	Handlebar E-lock	1	
2	A06016-721-1P0	M6*16-Half round head with the pad-Hexagon socket screw	2	9
3	FW06-61102-00	Cushion pulling wire	1	
4	FW06-53202-00	Pulling wire - Lock screw	1	4

Port model



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Electric system

ABS System

System diagram



Position and Disassembly/Assembly





 \cdot Head cover panel \rightarrow 37

No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-41201-00	Hydraulic control unit	1	
2	A06008-321-1P0	M6*8-Half round head-Hexagon socket screw	2	9
3	FW06-41403-00	Oil-pass bolt - ABS-side	2	
4	FW06-41405-00	Copper washer	4	
5	FW06-41401-00	Front brake upper oil pipe	1	
6	FW06-41402-00	Front brake lower oil pipe	1	

Port model



ABS TE C-2290490-1 16-strand connector (ABS controller side/positive terminal)



No.	Materials No.	Part name	Quantity	Torque (N·m)
1	FW06-31101-00	Chassis	1	
2	FW06-52101-00	Battery pack	1	
3	A10250-421-1P5	M10*250-Cup head-Hexagon socket screw (1.5 thread pitch)	1	
4	B10-5-1P5	M10 Nylon flange self-locking nut (1.5 thread pitch)	1	
5	A10020-001-1P25	M10*20-Flange head-External hexagon socket screw (1.25 thread pitch)	2	
6	FW06-62101-00	Side stand installation panel	1	
7	A10020-421-1P5	M10*20-Cup head-Hexagon socket screw (1.5 thread pitch)	2	
8	XJC8P5-12-08	Side cover rubber	2	

MEMO

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Schematic diagram of the electrical principles







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