



Service Manual



HS-928

This product has passed CE certifications, including GMP Taiwan, ISO9001, and ISO13485.

- ※ In case of any discrepancy between the illustrations and accessories in this manual and the actual Scooter, the actual Scooter shall prevail.
- ※ The Company reserves the right to design and modify this scooter.

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Foreword :

- ※ The repair manual is the technical data for maintenance and inspection of all parts of the HS-928. Its contents are arranged together with pictures and texts, with the key items of "work order", "work points", and "inspection and adjustment" in order to provide maintenance standards for technical personnel.
- ※ If the content and type contained in this repair manual differ slightly from those of the actual scooter, the actual scooter shall prevail. If the illustrations or instructions of this manual differ from those of the actual scooter due to a change in the scooter style or structure, the actual scooter shall prevail. Your understanding is greatly appreciated.
- ※ Regarding all materials, illustrations, instructions, and specifications in this manual, the Company reserves the right to modify and revise them at any time without notice and free of liability, according to the latest product information at the time of approval and publication.
- ※ This service manual should not be copied or scanned without permission.

Notes before starting maintenance :

- ※ Please read the service manual carefully before maintenance in order to determine the correct cause of failure and carry out maintenance.
- ※ Please follow the instructions of the operation procedures in the maintenance manual to avoid injuries to personnel and damage to the scooter during operation.
- ※ Before performing maintenance on the scooter, it is recommended to first turn off the battery to prevent the risk of electric shock during maintenance.
- ※ During maintenance, due to the complexity of some steps, the number of maintenance technicians is suggested to be more than two for better and safer operation.
- ※ When using manual / electric / pneumatic tools, please refer to the torque specification to prevent damage to the scooter.
- ※ In case of any discrepancy between the illustration in the repair manual and the actual scooter, the actual scooter shall prevail.
- ※ Please properly preserve the parts of the dismantled scooter to prevent loss.
- ※ A new product does not include screws, gaskets, fixing accessories and other parts. When replacing the new product, the aforementioned parts disassembled from the old product shall be used to assemble the new product. If the parts removed from the old product have abnormal phenomena, such as corrosion, damage, deformation, etc., please replace them first.
- ※ After the scooter is disassembled, please follow the instructions to reassemble it correctly to prevent scooter damage or personnel injury.
- ※ After the scooter maintenance has been completed, it is recommended to ride/operate the scooter to confirm that the scooter failure has been eliminated.
- ※ The motor will generate heat when running. If the scooter needs to be repaired, please wait for the motor to be cool before operation to prevent burns.
- ※ When repairing the scooter, please put the N-D lever into the D gear to prevent the scooter from moving.
- ※ It is strictly prohibited to disassemble and repair the scooter when it is powered on.
- ※ Please refer to the instructions on the last page of the service manual for scooter failure.

Personal safety equipment preparation :

- Safety goggles
They can prevent eye damage in case of leakage of lead-acid battery fluid during maintenance.
- Steel-point safety shoes
They can prevent foot injuries when carrying or assembling the scooter.
- Working gloves
When relocating or disassembling iron parts, they can increase friction to effectively hold the objects. In case of dealing with leakage of lead-acid battery fluid, acid-resistant gloves are needed.
- Repair tools
Please prepare the tools according to the reference tools in the notes for each maintenance item.

1-1 Repair instructions

Maintenance instructions :

In order to keep your electric scooter in optimal use, please perform regular maintenance.

Clean and check the following :

- ※ Whether the front/rear tire pressure is within the normal range of 35-40 psi.
- ※ Whether the front/rear tire pattern is lower than the normal value by more than 0.5 mm.
- ※ Whether the frame and components are cleaned.
- ※ Whether the joints and lock points are correct and have signs of corrosion
- ※ Whether the rearview mirror and rear retro reflector are in good condition.
- ※ The motor, battery, controller, and other components do not require maintenance, please do not disassemble them without authorization. In case of any problems, please immediately send them for repair.
- ※ The scooter is strictly forbidden from being rinsed with high pressure water in order to prevent electronic components and wiring from becoming wet and causing accidents.
- ※ It is strictly forbidden to clean the scooter with corrosive solvents or detergents to prevent discoloration and deformation of plastic parts and painted surfaces.
- ※ When cleaning the shell, please wipe it with a neutral solution.
- ※ When cleaning the metal part of the scooter shroud, please wipe it with a dry cloth.
- ※ For the internal electrical appliances and wiring of the scooter shroud, please try to avoid contact with detergents and water. If the surface needs to be wiped, it is recommended to use a dry cloth.

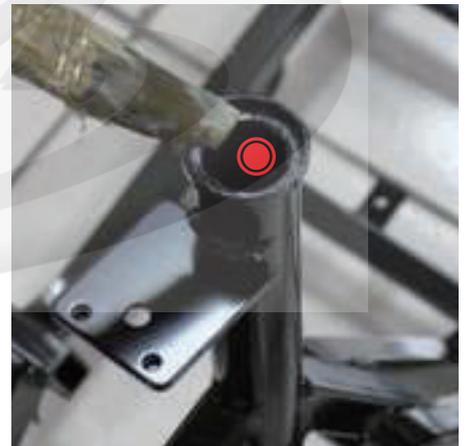
It is recommended that the following parts be oiled and lubricated every 3,000 km or every six months of use.



1. Front / rear axle



2. Seat holder fixing hole



3. Upper and lower copper beads set of the center bar



※ Oiling is prohibited on the following parts :
shroud, tires, brake drums, electromagnetic brakes, and brake rubber block.

Parts Categories

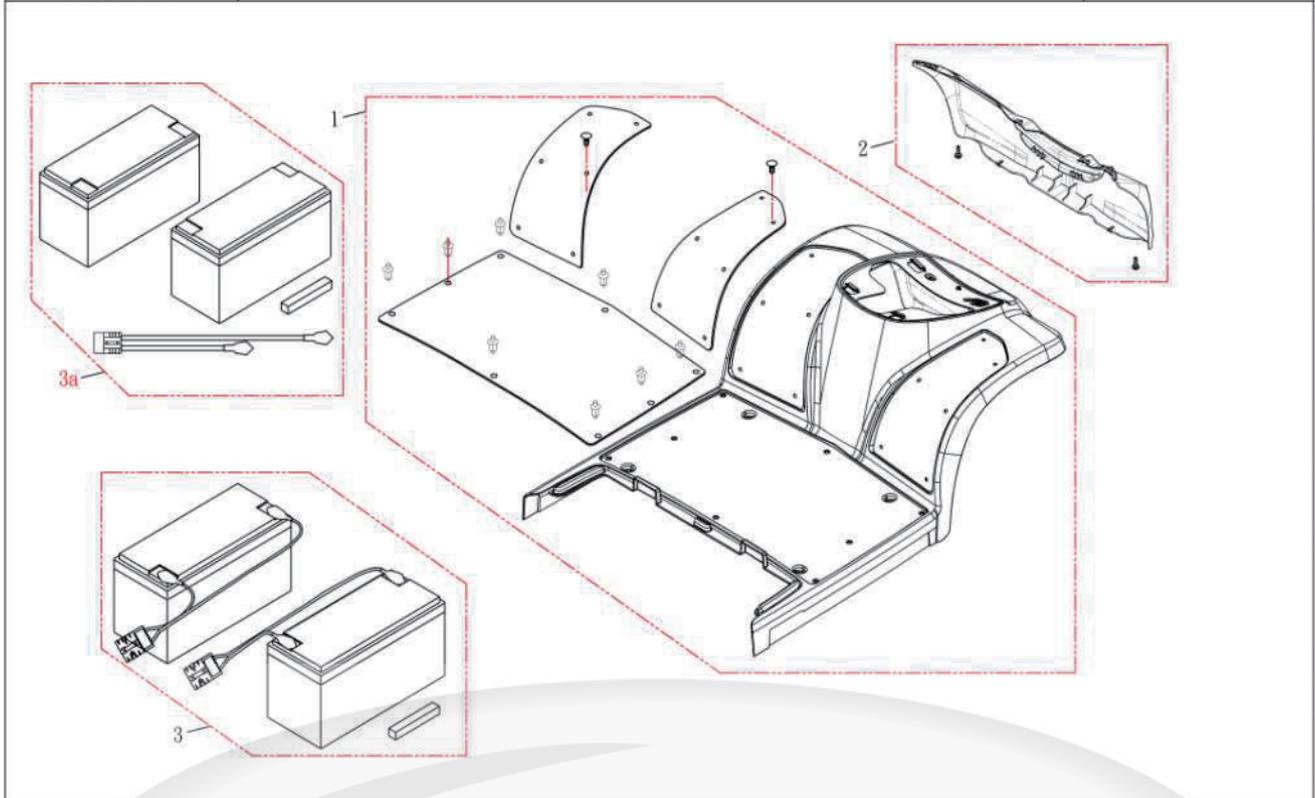
- 2-01 Front shroud parts
- 2-02 Front frame parts
- 2-03 Rear shroud parts
- 2-04 Rear frame parts
- 2-05 Seat parts
- 2-06 Front wheel parts
- 2-07 Rear wheel parts
- 2-08 Brake set parts
- 2-09 Front slanting parts
- 2-10 Steering parts
- 2-11 Optional parts





1. FRONT SHROUD-FOUR WHEELER

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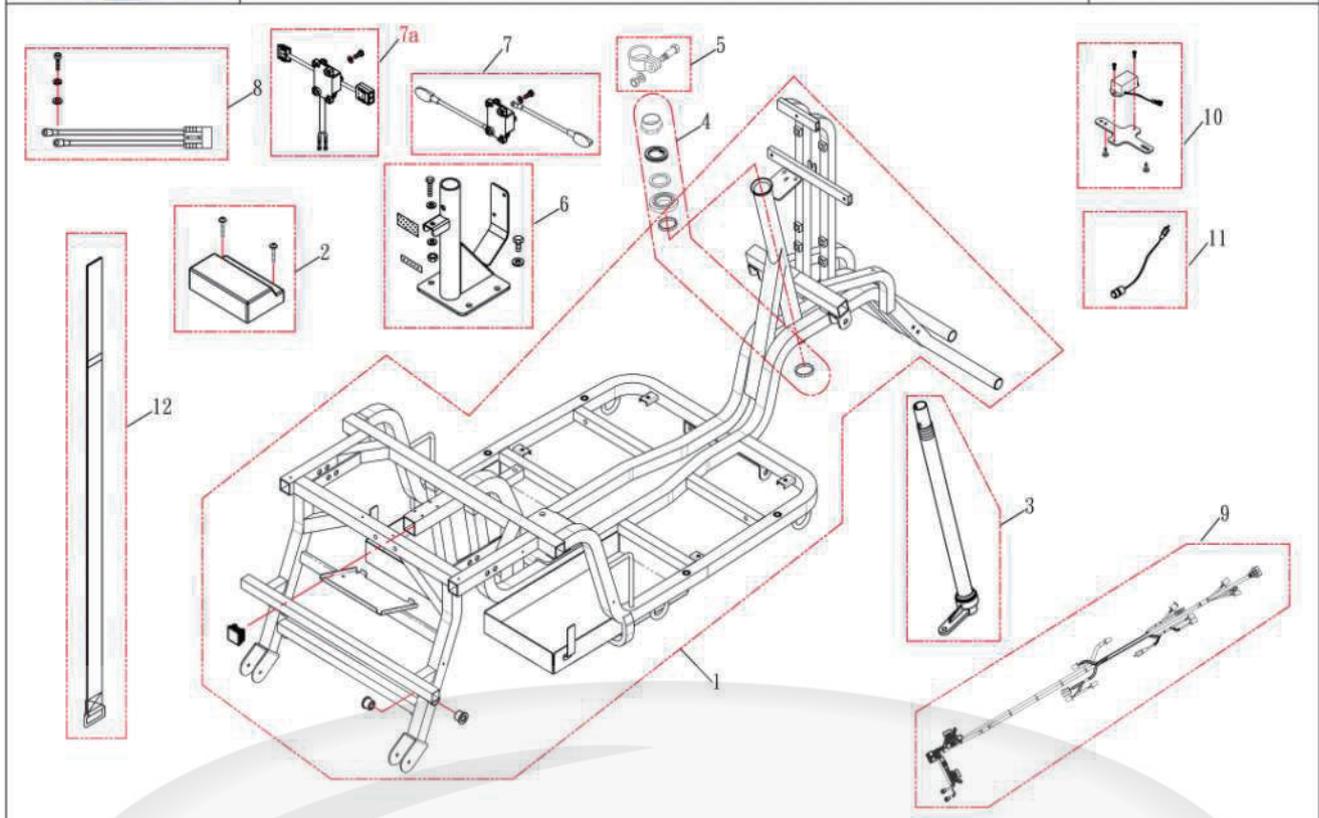


NO	ITEM NUMBER	DESCRIPTION	QTY
1	C-332110-92800-RD2	FRONT SHROUD ASSEMBLY	1
1	C-332100-92810-RD2	FRONT SHROUD ASSEMBLY	1
2	C-335110-92800	COVER , BUMPER FRONT	1
2	C-335110-92821	COVER , BUMPER FRONT	1
3	C-313300-92820	BATTERY 12V/100Ah	1
3	C-313300-92830	BATTERY 12V/100Ah	1
3a	C-313300-92800	BATTERY ASSEMBLY 12V/100Ah	1
3a	C-313300-92810	BATTERY ASSEMBLY 12V/100Ah	1
3a	C-313275-92800	BATTERY 12V/75Ah	1



2. FRONT FRAME-FOUR WHEELER

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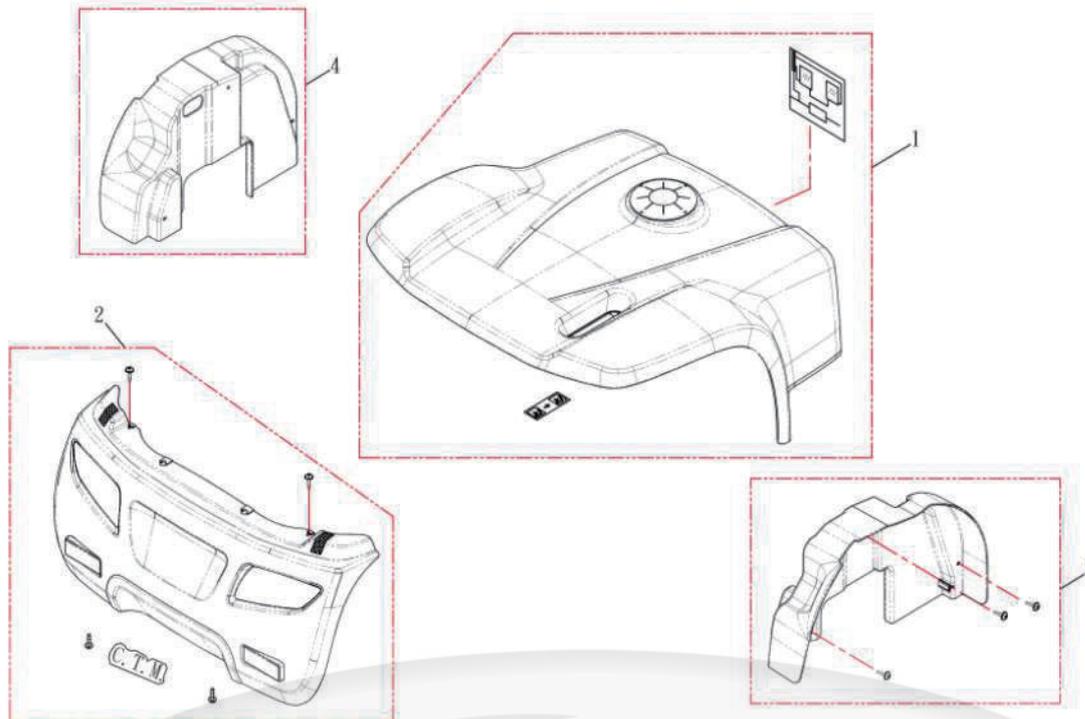


NO	ITEM NUMBER	DESCRIPTION	QTY
1	531100-92822	FRAME COMP. , FRONT	1
1	531100-92833	FRAME COMP. , FRONT	1
2	C-317100-92800	CONTROLLER 160A	1
3	336110-92800	BAR ASSEMBLY	1
4	C-336215-56000	BALLS SET.	1
5	526680-52800	PADLOCK	1
6	C-331160-91500	HOLDER , SEAT LOWER BRACKET	1
7	C-315618-92801	Battery,Thermal Circuit Breaker	1
7a	C-315300-92800	WIRE HARNESS BATTERY OUTPUT	1
8	C-315650-92800	Wire Controller Socket	1
9	515000-92801	WIRE HARNESS	1
10	317920-52000	GYROSCOPE	1
11	515170-92800	TEMPERATURE SENSOR	1
12	542220-72000	BAND , BATTERY COMP.	1



3. REAR SHROUD

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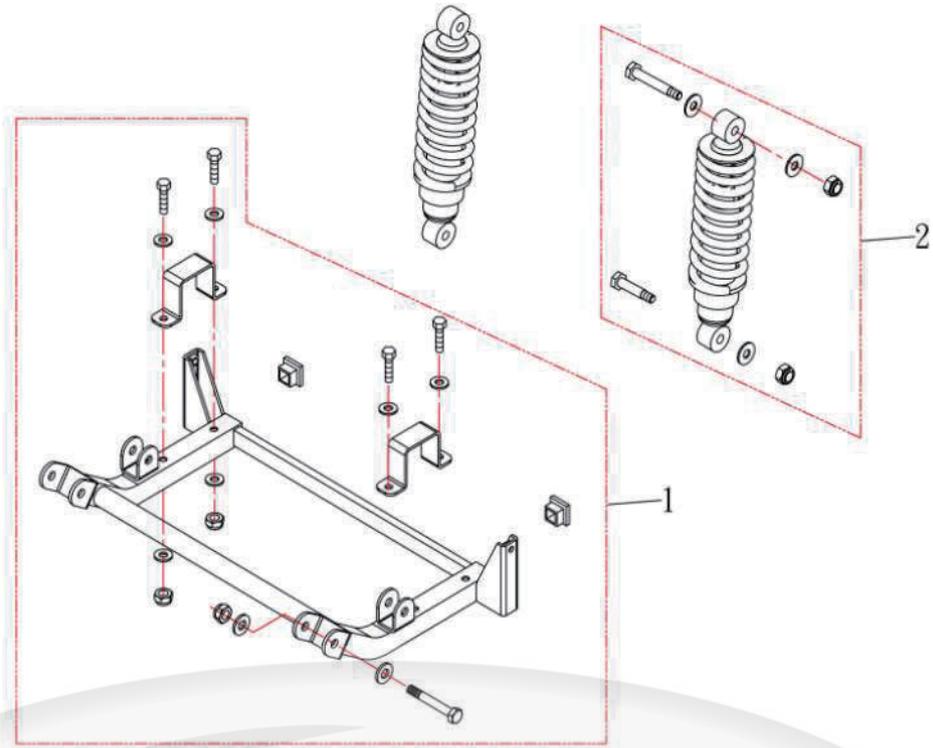


NO	ITEM NUMBER	DESCRIPTION	QTY
1	C-342100-92800-RD2	SHROUD REAR COMP.	1
1	C-342100-92820-RD2	SHROUD REAR COMP.	1
2	C-345100-92800	COVER , BUMPER REAR ASSEMBLY	1
2	C-345100-92810	COVER , BUMPER REAR ASSEMBLY	1
2	C-345100-92820	COVER , BUMPER REAR ASSEMBLY	1
2	C-345100-92831	COVER , BUMPER REAR ASSEMBLY	1
3	C-342150-92801	FENDER RIGHT	1
4	C-342160-92801	FENDER LEFT	1



4. REAR FRAME

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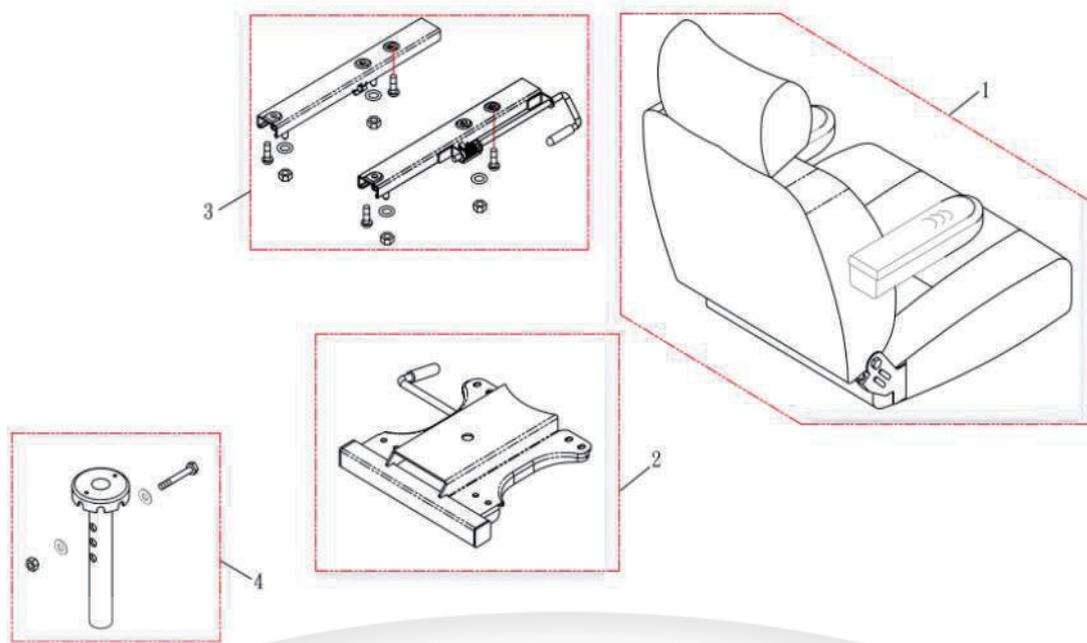


NO	ITEM NUMBER	DESCRIPTION	QTY
1	C-341310-92800	BRACKET , SUSPENSION	1
2	C-341210-92800	CUSHION COMP , REAR	1
2	C-341210-92810	CUSHION COMP , REAR	1



5. SEAT

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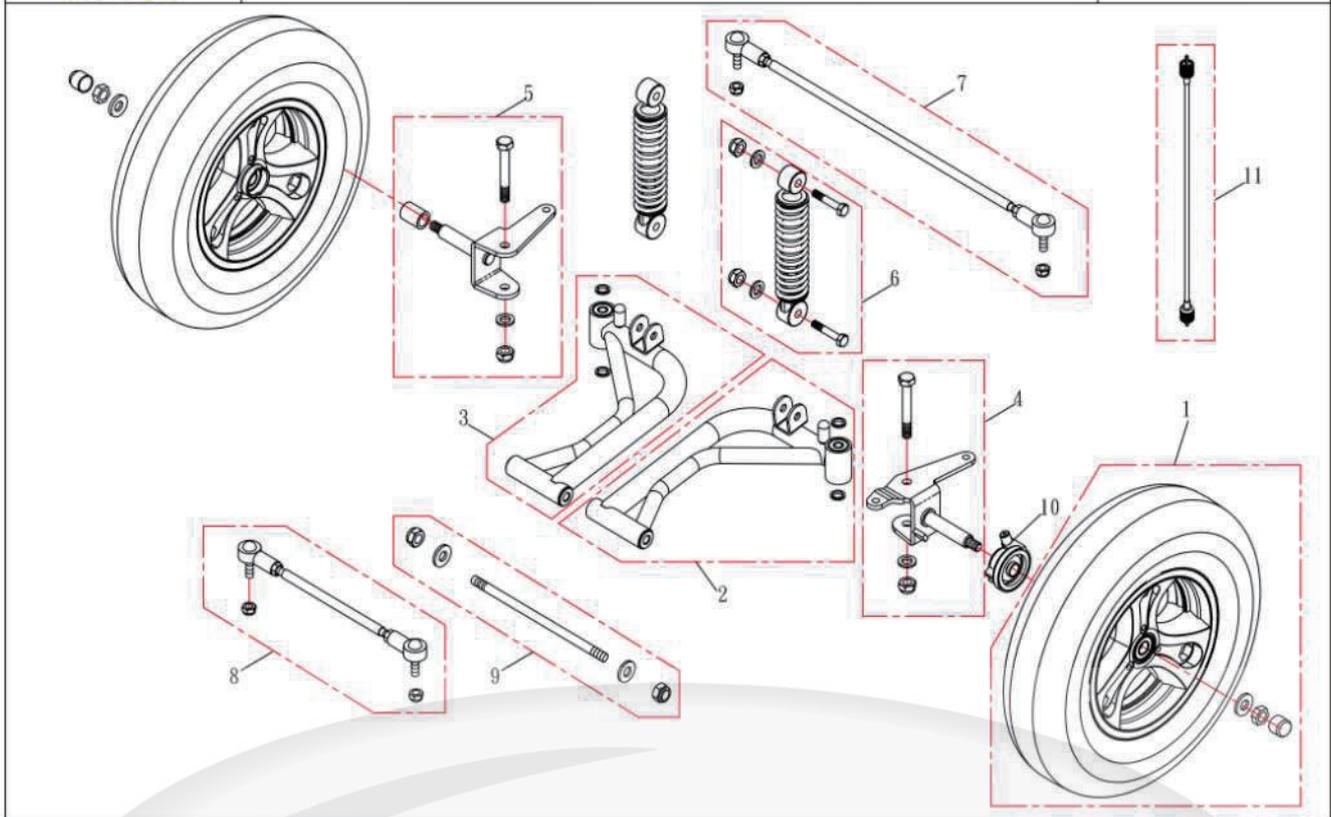


NO	ITEM NUMBER	DESCRIPTION	QTY
1	571400-92801	SEAT COMP	1
2	372100-83801	SEAT BRACKET ASSEMBLY	1
3	C-372200-68600	SLIDE ASSEMBLY	1
4	C-372410-92801	HOLDER, GUIDE	1



6. FRONT WHEEL AND STEERING-FOUR WHEELER

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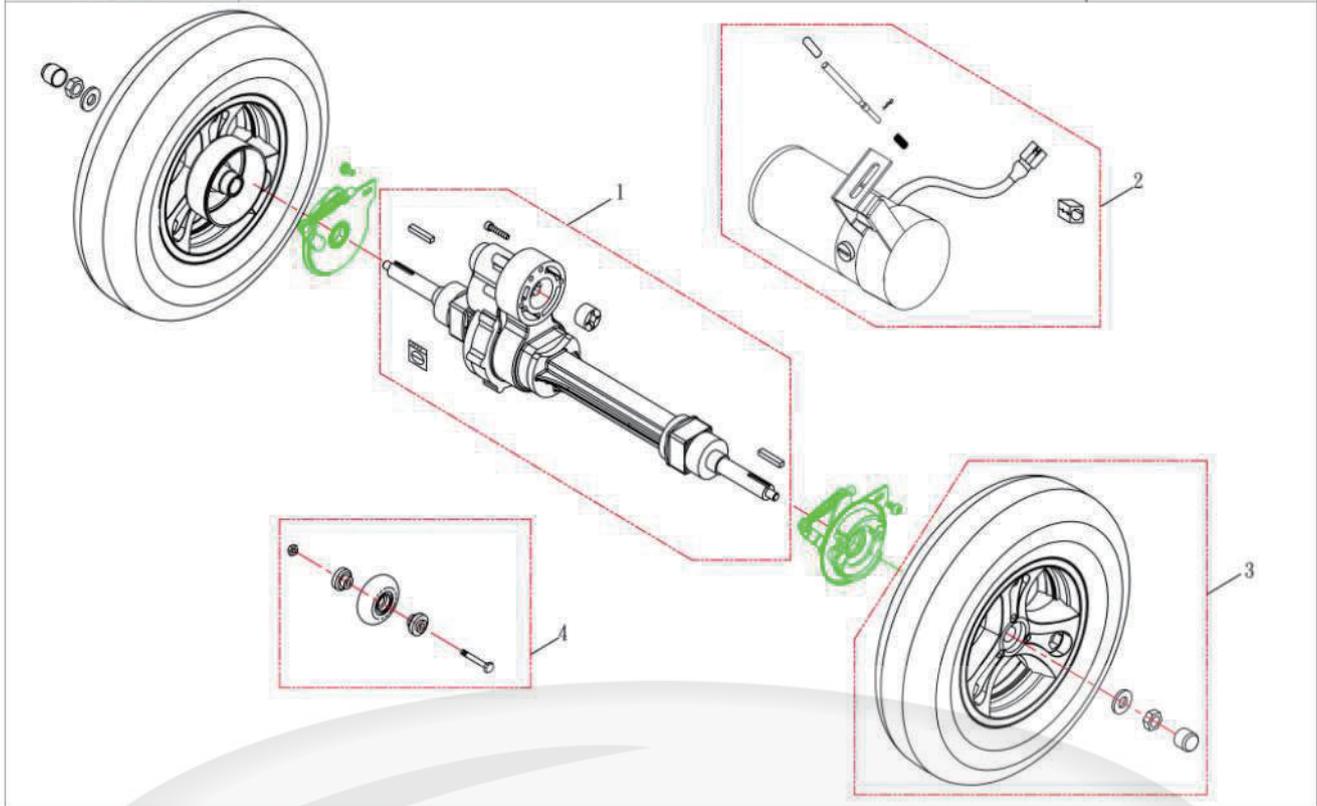


NO	ITEM NUMBER	DESCRIPTION	QTY
1	C-361200-92812	FRONT WHEEL ASSEMBLY	1
1	C-361200-92820	FRONT WHEEL ASSEMBLY	1
1	C-361200-92830	FRONT WHEEL ASSEMBLY	1
2	C-333310-92800	SUSEPNSION ASSEMBLY, FRONT WHEEL R	1
3	C-333410-92800	SUSEPNSION ASSEMBLY, FRONT WHEEL L	1
4	C-334110-92800	AXLE COMP., FRONT WHEEL R	1
5	C-334120-92800	AXLE COMP., FRONT WHEEL L	1
6	C-333210-92800	CUSHION COMP.	1
7	C-333130-92800	FRONT ROD ASSEMBLY	1
7	C-333130-92810	FRONT ROD ASSEMBLY	1
8	C-333140-92800	REAR ROD ASSEMBLY	1
8	C-333140-92810	REAR ROD ASSEMBLY	1
9	C-333305-92800	BOLT , SUSEPNSION COMP.(M10 X 230L)	1
10	517820-92800	METTER GEAR	1
11	517830-92801	WIRE, METTER GEAR	1



7. REAR WHEEL AND MOTOR ASSEMBLY

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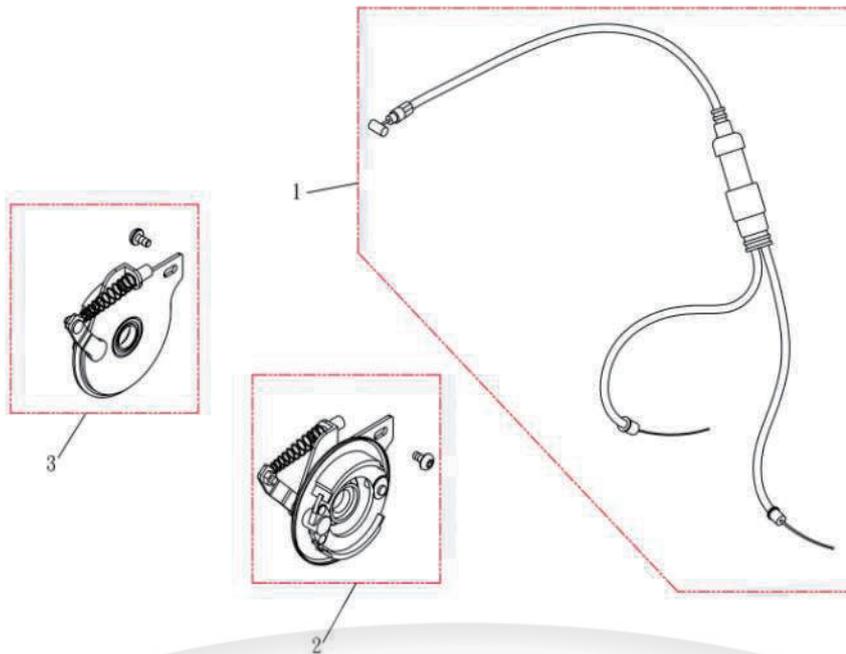


NO	ITEM NUMBER	DESCRIPTION	QTY
1	C-351000-92800	DIFFERENTIAL COMP.	1
1	C-351000-91500	DIFFERENTIAL COMP.	1
2	C-311100-91511	MOTOR ASSEMBLY 15km	1
2	C-311100-91531	MOTOR ASSEMBLY 15km	1
2	C-311100-91521	MOTOR ASSEMBLY 12.8km	1
2	C-311100-91541	MOTOR ASSEMBLY 12.8km	1
2	C-311100-92881	MOTOR ASSEMBLY 18km (928)	1
2	C-311100-91550	MOTOR ASSEMBLY 15km (1100W)	1
3	C-362000-92812	REAR WHEEL ASSEMBLY	1
3	C-362000-92820	REAR WHEEL ASSEMBLY	1
4	364340-56000	WHEEL , ANTI-TIPPER	1



8. BRAKES

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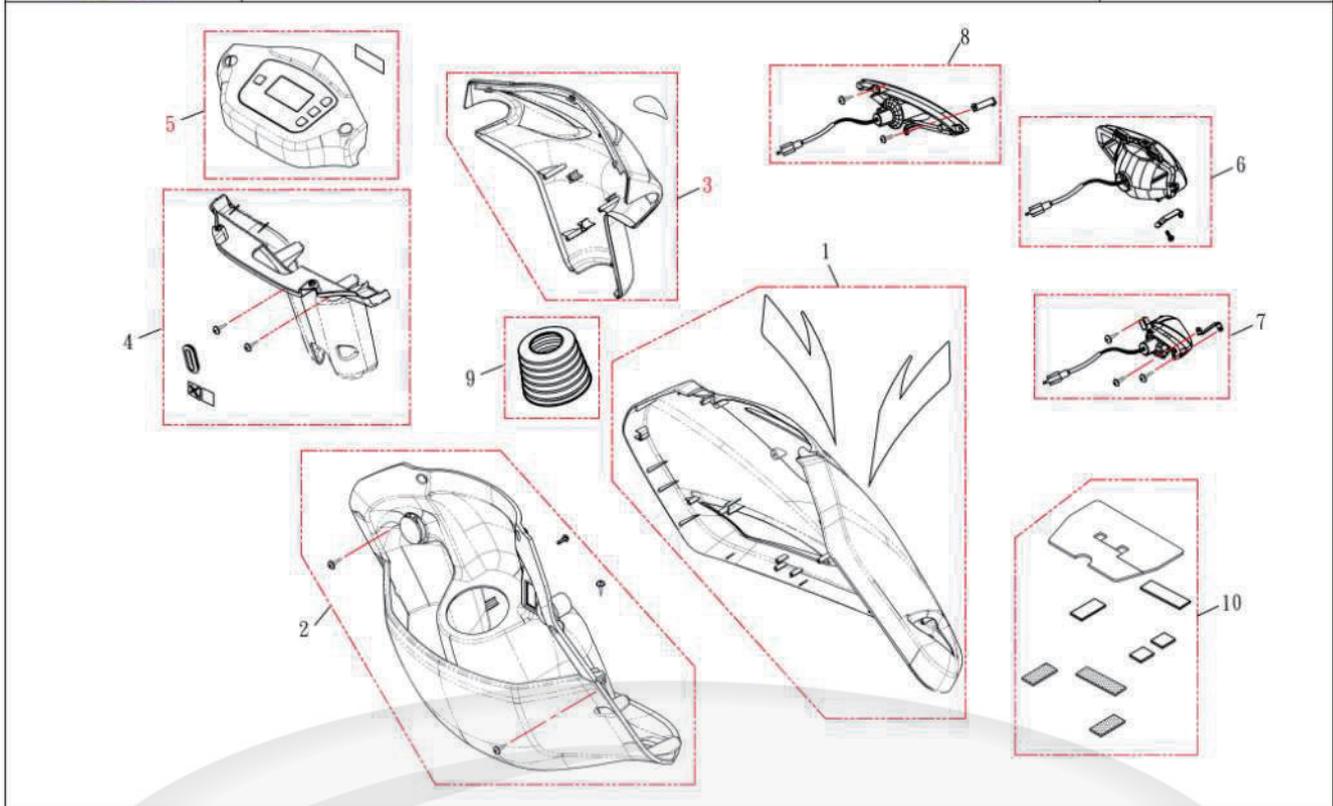


NO	ITEM NUMBER	DESCRIPTION	QTY
1	565310-92800	CABLE	1
2	C-365110-92801	PANEL,REAR BRAKE CAM R	1
3	C-365210-92801	PANEL,REAR BRAKE CAM L	1



9. STEERING COVER

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NO	ITEM NUMBER	DESCRIPTION	QTY
1	C-324310-92801-RD2	FRONT SLANTING LID COMP.	1
1	C-324310-92812-RD2	FRONT SLANTING LID COMP.	1
1	C-324310-92821-RD2	FRONT SLANTING LID COMP.	1
1	C-324310-92841-RD2	FRONT SLANTING LID COMP.	1
2	C-324320-92820	BOX ASSEMBLY , KEY TYPE:A01	1
2	C-324320-92830	BOX ASSEMBLY , RANDOM KEY TYPE	1
2	C-324320-92840	BOX ASSEMBLY , KEY TYPE:A01	1
2	C-324320-92850	BOX ASSEMBLY , RANDOM KEY TYPE	1
3	C-324120-92801-RD2	COVER , STEERING FRONT ASSEMBLY	1
3	524120-92801-RD2	COVER , STEERING FRONT	1
4	C-324130-92801	COVER , STEERING REAR	1
5	C-324110-92800	COVER , STEERING UPPER ASSEMBLY	1
5	C-324110-92810	COVER , STEERING UPPER ASSEMBLY	1
5	C-324110-92820	COVER , STEERING UPPER ASSEMBLY	1
6	C-318100-92800	HEAD LAMP COMP	1
6	C-318120-92800	HEAD LAMP COMP	1

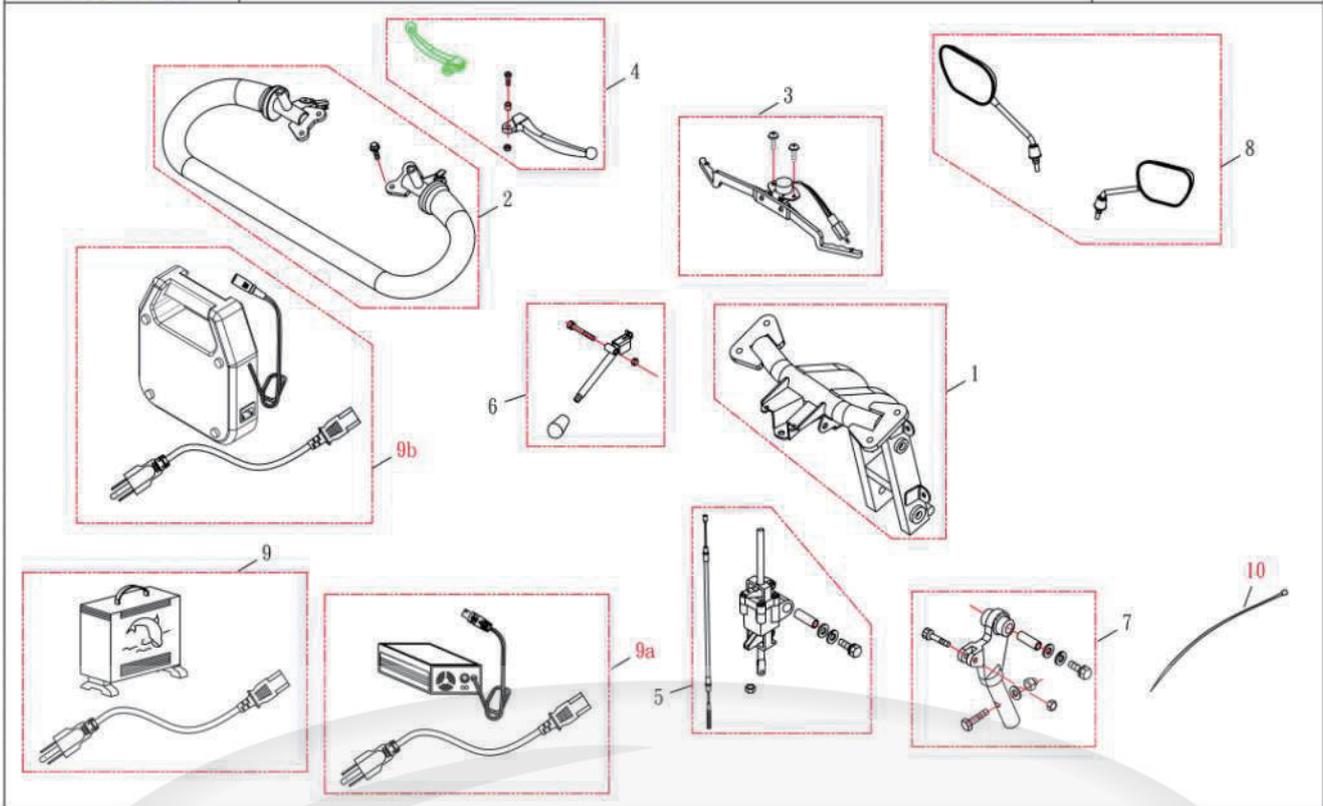
7	C-318300-92800	LAMP ASS' Y,FRONT TURN SIGNAL-R	1
7	C-318320-92800	LAMP ASS' Y,FRONT TURN SIGNAL-R	1
8	C-318400-92800	LAMP ASS' Y,FRONT TURN SIGNAL-L	1
8	C-318420-92800	LAMP ASS' Y,FRONT TURN SIGNAL-L	1
9	525210-61500	COVER , STEERING JOINT	1
10	C-324335-92800	GUARD+VEL-CRO	1





10. STEERING

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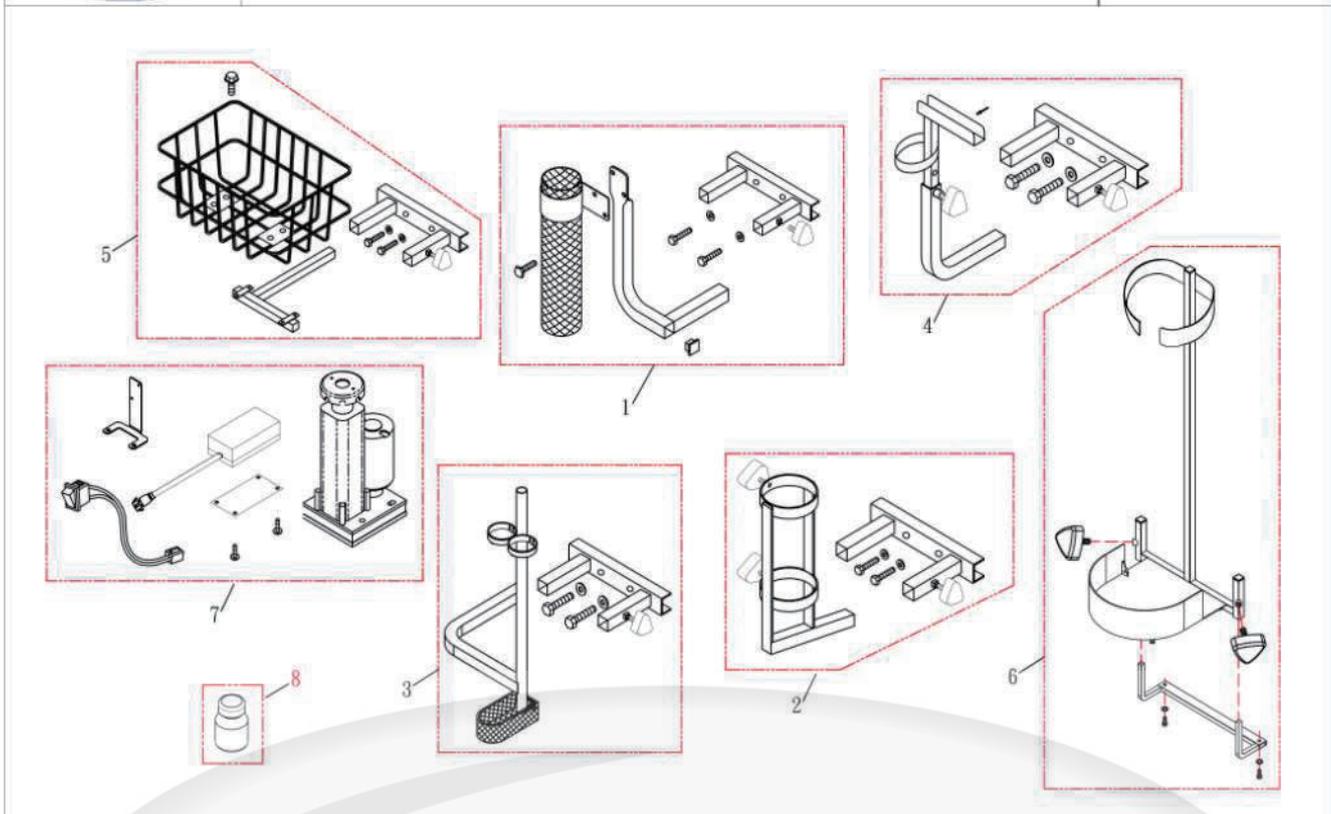


NO	ITEM NUMBER	DESCRIPTION	QTY
1	521100-92801	STEERING COMP.	1
2	C-321220-92800	GRIP , HANDLE BAR	1
3	C-316300-57001	STARTER ASSEMBLY	1
4	C-326120-68600	LEVER , BRAKE RIGHT	1
5	C-325300-89003	STEERING ADJ ASSEMBLY	1
6	C-325390-92810	REGULATOR ROD	1
7	C-325120-89001	JOINT B,STEERING ADJ LOWER	1
8	326200-92800	BACK MIRROR COMP	1
9	C-314280-89001	CHARGER COMP. 24DCV/8.0Amp	1
9	C-314280-89011	CHARGER COMP. 24DCV/8.0Amp	1
9a	C-314215-92820	CHARGER COMP. 24DCV/15.0Amp.	1
9b	C-314812-92800	CHARGER COMP. 24DCV/12.0Amp	1
10	515190-85500	TIE, WIRE HARNESS	1



11. ACCESSORY

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NO	ITEM NUMBER	DESCRIPTION	QTY
1	377200-92800	CANE HOLDER COMP	1
2	377300-28000	OXYGEN CYLINDER COMP	1
3	377100-28001	BRACKET COMP., CANE	1
4	377600-28000	BRACKET ASSEMBLY , WALKER	1
5	377400-28000	REAR BASKET COMP.	1
6	379830-92800	GOLF HOLDER ASSEMBLY	1
7	C-331160-72800	LIFTING GEAR ASSEMBLY	1
8	7-ABL0	SHROUD TOUCH UP PAINT BL0	1
8	7-ABU1	SHROUD TOUCH UP PAINT BU1	1
8	7-ABU4	SHROUD TOUCH UP PAINT BU4	1
8	7-ABU6	SHROUD TOUCH UP PAINT BU6	1
8	7-AGR3	SHROUD TOUCH UP PAINT GR3	1
8	7-AGY5	SHROUD TOUCH UP PAINT GY5	1
8	7-AGY7	SHROUD TOUCH UP PAINT GY7	1
8	7-ARD2	SHROUD TOUCH UP PAINT RD2	1
8	7-ARD6	SHROUD TOUCH UP PAINT RD6	1

8	7-ASG1	SHROUD TOUCH UP PAINT SG1	1
8	7-ASG5	SHROUD TOUCH UP PAINT SG5	1
8	7-AWH1	SHROUD TOUCH UP PAINT WH1	1



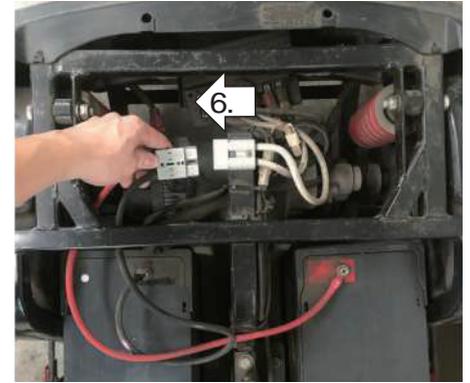
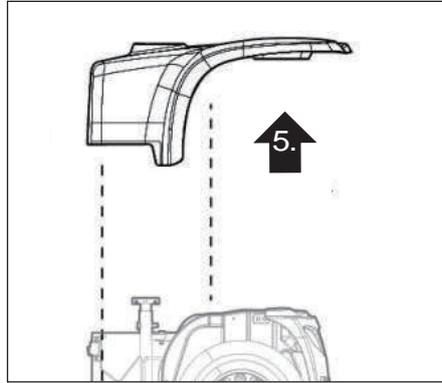
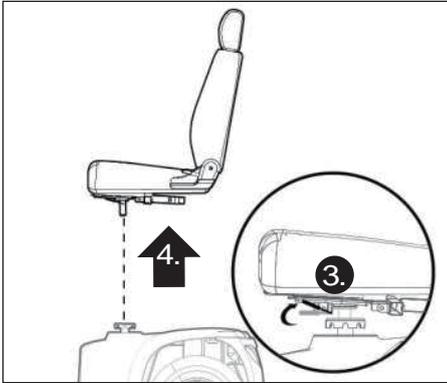
- 3-1 Powering off the battery
- 3-2 Battery removal
- 3-3 Battery connection cable set maintenance
- 3-4 Battery connection cable set disassembly
- 3-5 Charging operation instructions
- 4-1 Main switch and upper control panel instructions
- 4-2 Upper control panel adjustment
- 4-3 Control panel maintenance
- 4-4 Panel wiring instructions
- 4-5 Maintenance of the VR initiator controller
- 4-6 Steering cover maintenance
- 5-1 Front slanting maintenance
- 5-2 Box rear cover maintenance
- 5-3 Microswitch set maintenance
- 5-4 Temperature sensor maintenance
- 5-5 Headlight maintenance
- 5-6 Front turn light maintenance
- 5-7 Main power switch set maintenance
- 5-8 charging port maintenance
- 6-1 Steering frame repair
- 6-2 Maintenance of front cover of front box
- 6-3 Front shroud upper cover maintenance
- 6-4 Front cover maintenance
- 6-5 Center bar maintenance
- 7-1 Seat board maintenance
- 7-2 Seat holder adjustment
- 7-3 Seat bracket maintenance
- 7-4 Main controller maintenance
- 8-1 Front wheel maintenance
- 8-2 Meter gear maintenance (wheel-FR)
- 8-3 Rear wheel maintenance
- 8-4 Left/right brake adjustment
- 8-5 Left/right brake plate maintenance
- 8-6 Brake lever maintenance
- 8-7 Rear cover maintenance
- 8-8 Rear Light maintenance
- 8-9 Left / right fender maintenance
- 9-1 Motor maintenance
- 9-2 Electromagnetic brake maintenance
- 9-3 Differential mechanism maintenance
- 9-4 Rear shock absorber maintenance
- 9-5 Front shock absorber maintenance

3-1 Powering off the battery :



※No tools required

- 1.Ensure the scooter's power is off.
- 2.Adjust the gearshift of the scooter to "D."
- 3.Pull the handle on the left side of the seat.
- 4.Remove the scooter seat.



- 5.Remove the upper cover of the rear shroud of the scooter.

- 6.Remove the scooter power connector (1pcs).

※ Power cut-off is completed.
※ Please follow the above steps in reverse for reassembly.



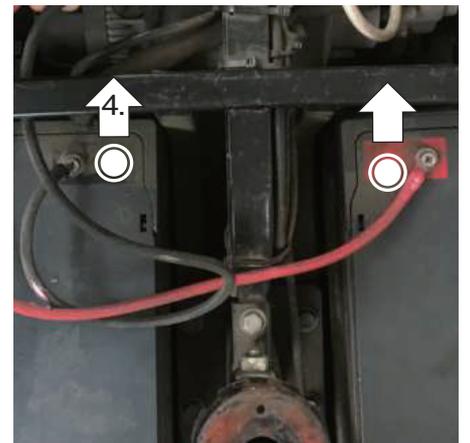
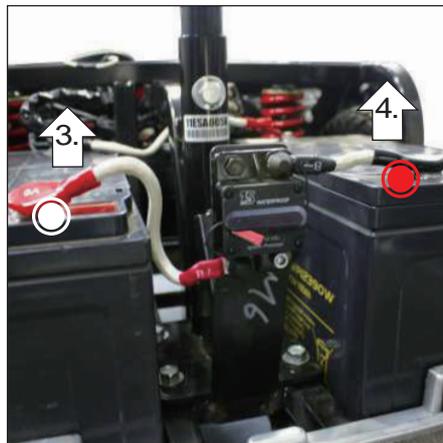
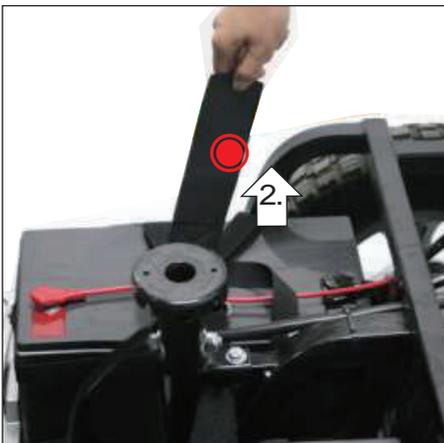
- ※ Before performing maintenance on the scooter, first cut off the power. If the power is not cut off first, it may cause the risk of electric shock.
- ※ Before performing maintenance on the scooter, please park it in an open space on level ground and make sure the N-D lever is put in "D."

3-2 Battery removal :



※Sleeve Tool #10 x 1pcs ※Cross Tool

- 1.Refer to 3-1 Powering off the battery to first power off the scooter.
- 2.Loosen the entire belt.
- 3.Remove the positive terminal on both the battery connection cable and the battery.
- 4.Remove the negative terminal on both the battery connection cable and the battery.
- 5.Remove the positive and negative terminals on both the battery power cable and the battery.
- 6.The battery can now be removed.



※ Please follow the above steps in reverse for reassembly and replacement.



- ※ The battery itself is very heavy. Please be careful not to carry more than you can handle.
- ※ The positive and negative terminals on the battery should not be touched with metal tools to prevent the risk of danger.



- ※ The red connector of the power cable shall be connected to the red positive terminal; the black connector shall be connected to the black negative terminal.
- ※ To replace the battery, please remove the screws of each positive and negative terminal in order.
- ※ After the battery is installed, lock the positive and negative terminals in order; otherwise, there is a risk of danger.
- ※ If parking the scooter for a long time (more than one week), please fully charge the battery, unplug the power supply, and pay attention to the placement of the power plug to avoid short circuiting.

3-3 Battery connection cable set maintenance :



※ Cross Tool x 1 pcs

1. Refer to 3-1 Powering off the battery to power off the scooter.
2. Connect the battery to the cable set and push up the circuit breaker.
3. After the circuit breaker is pushed up, the reset is completed (as shown below).



- ※ After resetting, switch on to confirm that the scooter is operating normally.
- ※ If still operating abnormally, replace with a new piece.



- ※ While running the scooter, in case of voltage overload, the battery connection cable set enables the scooter to automatically cut off power through circuit breakers.
- ※ The scooter may be affected by climbing and loading, causing the circuit breaker to automatically cut off the power. It is recommended to park on level ground or reduce the load before repairing.
- ※ When resetting the power breaker, please switch the main power to OFF, and then cut off the battery power before performing the above steps to reset.

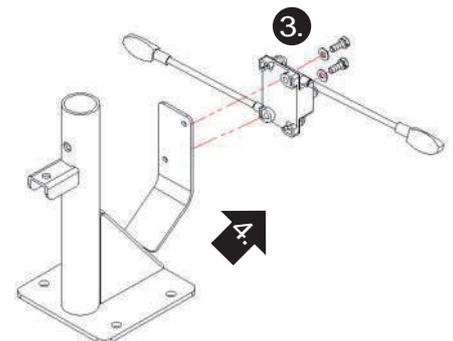
3-4 Battery connection cable set disassembly :



※ Hex wrench #17 x 2 pcs

1. Refer to 3-1 Powering off the battery to power off the scooter.
2. Please refer to the 3-2 Battery removal: Untie the connection cable.
3. Remove the fixing screws (M6x16Lx2pcs) from the seat holder.
4. The battery connection cable set can now be removed.

※ Please follow the above steps in reverse for reassembly and replacement.





- ※ In order to avoid overvoltage of the battery, the battery connection cable set has a high voltage protection function. If the battery connection cable set is damaged, please replace with a new one immediately.
- ※ When reassembling the battery connection cable, please pay attention to the battery "+" / "-" terminals and connect them correctly to prevent the risk of danger or damage.

3-5 Charging operation instructions :



※ For original charger only

Step 1 : Open the charger socket (b) cover, take the charger (a) attached to the scooter, insert the charging plug into the car charger socket (b), and then plug the other AC power plug (c) into the power socket. Then check if the charging indicator light on the charger (a) is on. If so, charging is in progress.

Step 2 : For safety reasons, please operate according to the above method. Once fully charged, please turn off the charger (a), unplug the 110V power plug, and then remove the charging plug.

Step 3 : When fully charged, the charging indicator light will turn green, but do not stop charging immediately. In order to fully charge the battery, you may charge it again.



Charging indicator :
Standby : red light
Charging : orange light
Full charged : green light

• Charger failure and troubleshooting

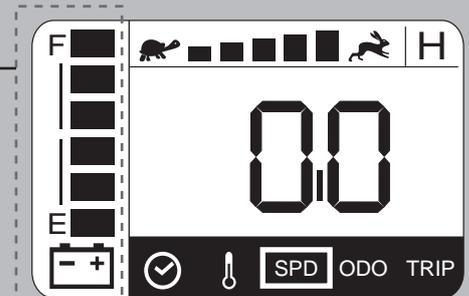
- ※ The power charging indicator light (red light) is not on :
Troubleshooting → Confirm whether the socket has normal voltage. If the socket voltage is normal, please replace with a new charger immediately.
- ※ The charging indicator light (orange light) is not on :
Troubleshooting → Confirm that the charging output connector is properly connected to the battery connector. If it is, a battery failure may have occurred, and the old charger should be replaced with a new one.
- ※ The charging indicator light (orange light) flashes quickly (to green light) :
Troubleshooting → Confirm that the battery is fully charged. If not, a battery failure may have occurred, and the old charger should be replaced with a new one.



- ※ Full charging time is about 8 hours (depending on degree of battery discharge); please do not charge continuously for more than 15 hours.
- ※ Please charge in a well-ventilated place and avoid charging in outdoor or rainy environments.

The display panel automatically switches to the SPD speedometer mode while in the charging state.

Display status as shown on the following page ←



Symbol flashing

- ※ The AC power plug must be plugged directly into an AC socket on the wall. To avoid danger, do not use an extension cable or adapter plug. When connecting, please make sure that both ends of the connectors are dry and clean.

• Battery electricity table :

Battery residual display							
Electric quantity	100% 6 cells	85% 5 cells	70% 4 cells	55% 3 cells	40% 2 cells	30% (1 cell flashes)	20% or less
Cell number status display							Warning indicator, continuous flashing
After the power is turned on, an alarm will be set off when the electric quantity is lower than 30% (three beeps)							

• Charging indicating table :

	Electric quantity	Cell number status display
Charging indication	40% 2 cells Loop display	
	55% 3 cells Loop display	
	70% 4 cells Loop display	
	Elect80% 5 cells Loop display	
	90% 6 cells Loop display	
	100% 6 cells Constantly on	
Incremental frequency	0.5 seconds	
Action characteristics	<ol style="list-style-type: none"> The cell number only increases upwards and does not decrease. The charger PIN3 (CH3) is used as the determination signal. When CH3 is grounded, it enters the charging mode, and KEY ON or KEY OFF is not limited. Press any key to turn on the backlight, which will automatically turn off if no button is touched within five seconds. 	
Remarks	The cell number status display is for reference only, and the exact assessment still depends on the indicator light on the charger.	

4-1 Main switch and upper control panel instructions :



※No tools required

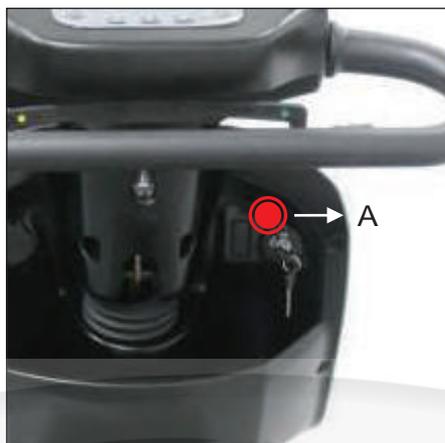
Main power switch (A)

1.Rotate clockwise to “ turn power on ”.

2.Rotate counterclockwise to " turn power off ".

※The main switch shall be turned on when driving the scooter. Please turn off the main switch when the scooter is stopped so as not to waste electricity.

※When running, if the key is turned to “ turn power off, ” the brake will be engaged and cause a sudden stop, which may be dangerous.



※Panel control instructions :

B.Warning light :

※Press to turn on, press again to turn off.

※When the warning light is on, if the main power is turned off and the warning light remains on.

C.Mode switching : Please refer to the next page for detailed setting steps.

D.Buzzer : The buzzer sets off the alarm after pressing.

E.Left direction light : Left direction light reminder.

F.eadlights : Lighting function while running.

G.Right direction light : Right direction light reminder.

H.Acceleration : Press to accelerate 1 level, speed fine adjustment from level 1 to level 5.

J.Deceleration : Press to accelerate 1 level, speed fine adjustment from level 5 to level 1.

I.High / low speed switching : Coarse adjustment for two levels. When the H light is on, it is in high speed mode; when the H light is off, it is in low speed mode.

Speed Display	H % (Max)	L % (Max)
 	20	10
 	40	20
 	60	30
 	80	40
 	100	50

※High / low speed depends on the current speed set.

4-2 Upper control panel adjustments :



※ No tools required

Panel function setting steps

Press K to switch to the mode to be set

 1. Time mode

 2. Temperature mode

 3. Speedometer mode

 4. Mileage accumulation mode

 5. Trip accumulation mode

※ Pressing L+M at the same time for at least 3 seconds will enter the setting state. The backlight will automatically turn on.

※ After entering the setting state, choose one of the following modes, and follow the setting instructions.



1. Time mode

Press K to enter the "minute" or "hour" setting mode. Press L to increase the number, press M to decrease the number; press and hold for 2 seconds, so the number will run continuously.

2. Temperature mode

Press L or M to switch the display unit between Celsius °C (ranging from -20 to 50) and Fahrenheit °F (ranging from -4 to 122).

3. Speedometer mode

Press L or M to switch the setting unit :

※ When "km/h" is displayed, it means "kilometers/hour".

※ When "MPH" is displayed, it means "miles/hour".

※ When "/h" is displayed, no speed is displayed.

The display unit of mileage accumulation and trip accumulation are displayed according to the speedometer setting unit.

※ The data displayed at the speed has a certain error value and is for reference only.

4. Mileage accumulation mode

The digital display range is from 0 to 99999. When the total mileage reaches the full digit of 99999 km (62149 miles), it will automatically return to zero and recalculate.

The display unit is set according to the speedometer; if "/h" is set in the speedometer, this mode will display the number of hours.

5. Trip accumulation mode

The digital display range is from 0.0 to 999.9. When the mileage reaches 999.9, it will stop accumulating (no recalculation).

Press and hold K for 3 seconds to return to zero.

※ Close the setting mode and automatically save the latest setting by doing the following :

Keep still for more than 15 seconds without any action.

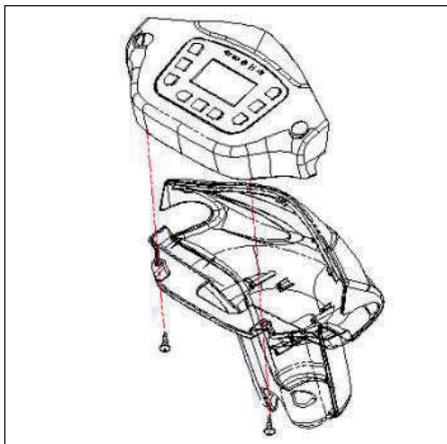
Press any key other than K, L, or M.

4-3 Control panel maintenance :



※Cross tool x 1pcs ※Straight tool x 1pcs

- 1.Refer to 3-1 Powering off the battery to power off the scooter.
- 2.Remove the two lock points on the top cover.
- 3.Use the straight tool to open the control panel.



※ If you have problems with the control panel, please reconnect the main cable connector first. If the situation does not change, please replace with a new product immediately.

4-4 Panel wiring instructions :



- 1.Refer to 3-1 Powering off the battery to power off the scooter.
- 2.Refer to 4-3 Control panel maintenance: Open the upper control panel.
- 3.Open the upper control panel to check the corresponding connector.

- A**. Main control cable connector
- B**. Buzzer switch connector
- C**. VR initiator controller connector
- S**. Cyclometer transmission wiring connector



※ The shape and color of different panel connectors differ to prevent improperly connecting the connectors; please do not modify the connector or circuit, which may cause serious problems.

※ For issues related to the electrical parts of the scooter, it is recommended to first check the above connectors to confirm whether they have loosened to cause the abnormality.

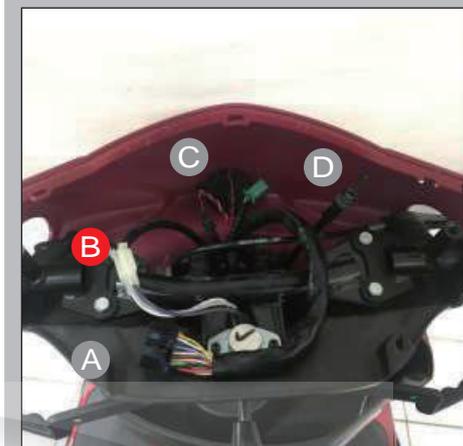
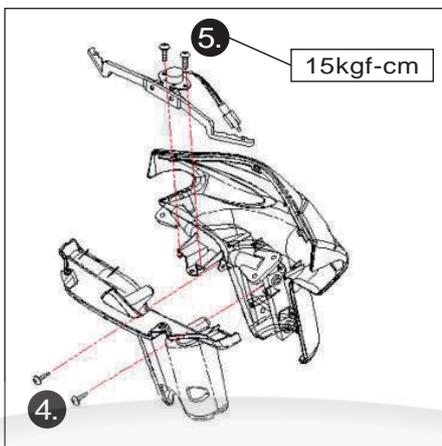
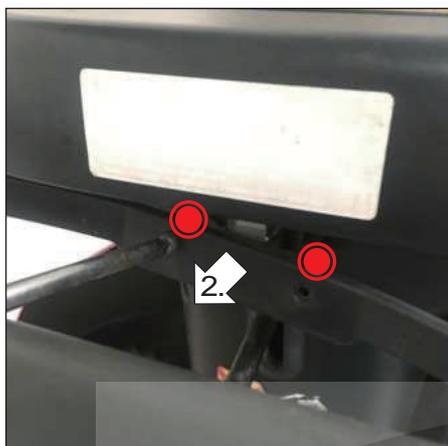
4-5 Maintenance of the VR initiator controller :



※Cross tool x 1pcs

- 1.Refer to 3-1 Powering off the battery to power off the scooter.
- 2.Remove the head actuating lever clamping screws (M4 x 12L x 2pcs).
- 3.Please refer to 4-3 Upper control panel maintenance to open the control panel.
- 4.Remove the head actuating lever clamping screws (M4 x 12L x 2pcs).
- 5.Remove the VR initiator controller after removing the fixing screws on the inside of the steering (M4 x 12L x 2pcs).

※ Please follow the above steps in reverse for reassembly and replacement.



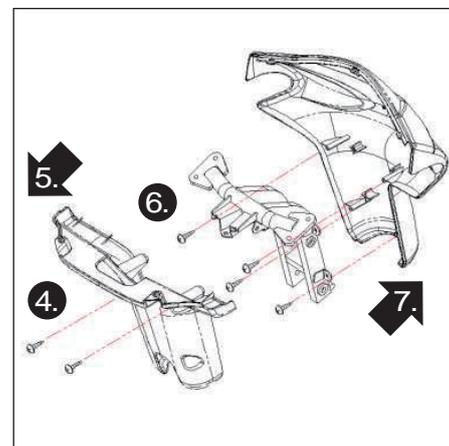
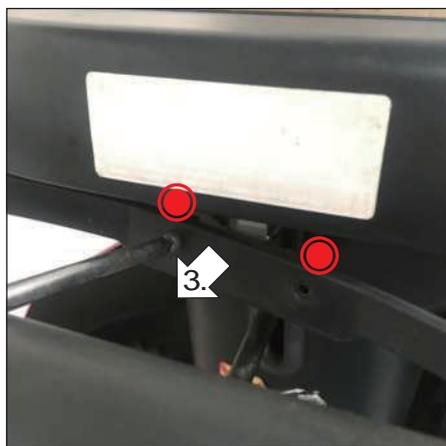
※ Please refer to the previous page for upper control wiring maintenance, and re-connect the connector B of the VR initiator controller. If this has no effect, please replace with a new part.

4-6 Steering cover maintenance :



※Cross tool x 1pcs

- 1.Refer to 3-1 Powering off the battery to power off the scooter.
- 2.Turn and remove the head adjustment handle.
- 3.Remove the head actuating lever clamping screws (M4 x 12L x 2pcs).
- 4.Remove the steering rear cover clamping screws (M4 x 12L x 2pcs).
- 5.Remove the steering rear cover.
- 6.Remove fixing screws of the steering front cover (M4 x 12L x 2pcs).
- 7.Remove the steering rear cover.





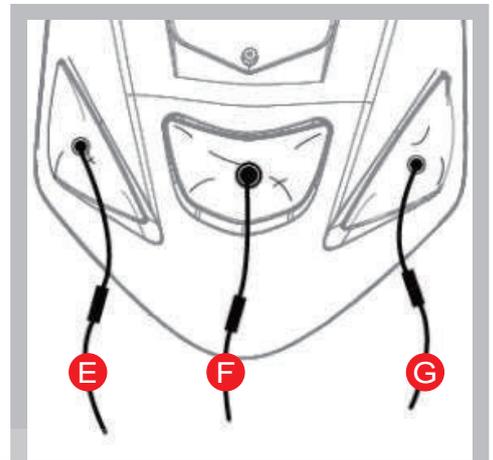
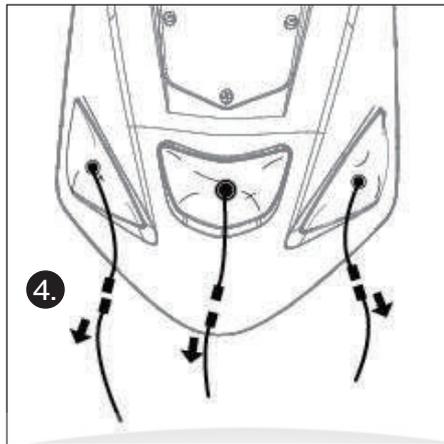
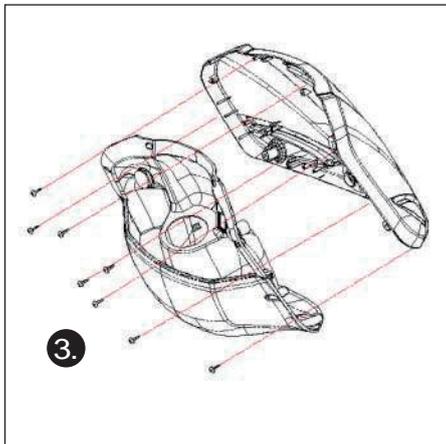
5-1 Front slanting maintenance :

※Cross tool x 1pcs

- 1.Refer to 3-1 Powering off the battery to power off the scooter.
- 2.Please refer to 4-6 Steering cover maintenance to remove the cover.
- 3.Remove the screws around the front box (M4 x 12L x 8pcs).
- 4.Remove the front slanting connector (3pcs).

※The front slanting can be removed once the connector is removed.

※Please follow these steps in reverse for reassembly and replacement.



※The front sloping plate is combined with the front light and has three connectors. Please refer to the figure below.

E. Left turn light **F**. Headlight **G**. Right turn light

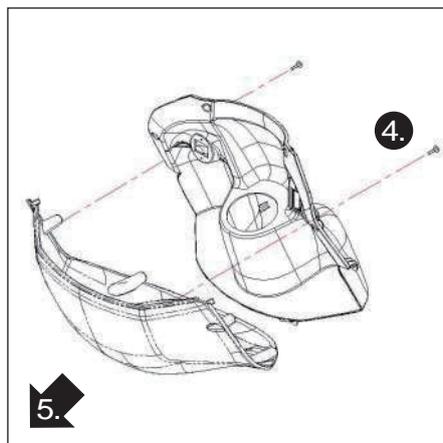
5-2 Box back cover maintenance :



※Cross tool x 1pcs

- 1.Refer to 3-1 Powering off the battery to power off the scooter.
- 2.Please refer to 5-1 Front slanting maintenance to remove the front slanting.
- 3.Remove the locking screws (M4 x12Lx 1pcs) on the front box.
- 4.Remove the two screws from the box (M4 x 12L x 2pcs).
- 5.Separate the rear box.

※Please follow these steps in reverse for reassembly and replacement.



※ In this step, only the back cover of the box can be removed. If the front cover of the box needs to be removed, please refer to 6-2 Maintenance of front cover of front box.

※Please take out any articles in the box before disassembling to prevent falling and loss.

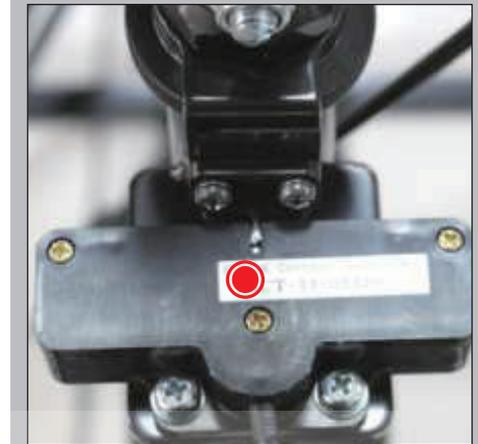
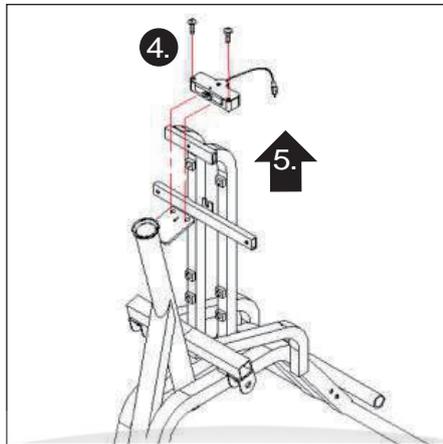


5-3 Turning deceleration set maintenance :

※Cross tool x 1pcs

- 1.Refer to 3-1 Powering off the battery to power off the scooter.
- 2.Please refer to 5-1 Front slanting maintenance to remove the front slanting.
- 3.Remove the turning deceleration set connector.
- 4.Remove the locking screw (M4 x 13L x 2pcs).
- 5.The turning deceleration set can now be removed.

※Please follow the above steps in reverse for reassembly and replacement.



※The turning deceleration set is used to control the turning and deceleration of the scooter. If the turning and deceleration functions are abnormal, please check whether the micro switch connector is loose. If the connector is normal, please replace with a new micro-switch.

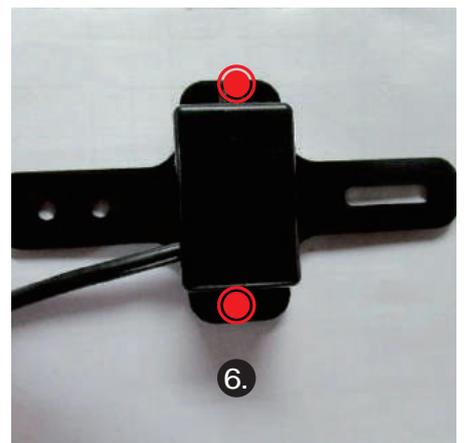
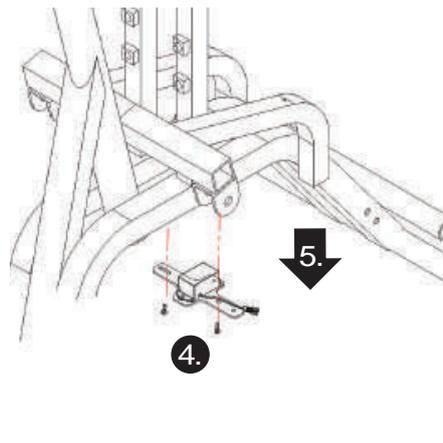
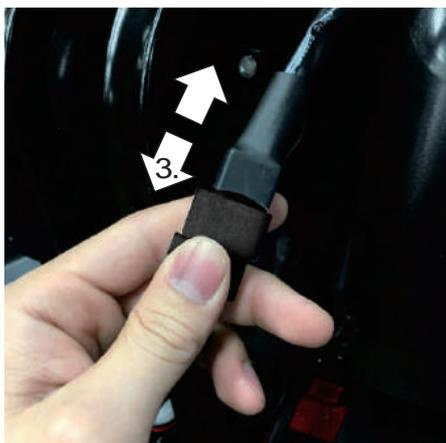
※Some scooters do not use the turning and deceleration set and may instead adopt the gyroscope to achieve turning and deceleration functions. For more details, please refer to Gyroscope Maintenance. The arrow on the micro-switch box must be aligned with the arrow on the micro switch launch pad.

· Gyroscope maintenance (Optional):



- 1.Refer to 3-1 Powering off the battery to power off the scooter.
- 2.Please refer to 5-1 Front slanting maintenance to remove the front slanting.
- 3.Remove the gyroscope connector.
- 4.Remove the locking screw (M4 x 12L x 2pcs) from the bottom of scooter.
- 5.The gyroscope and holder can now be removed.
6. Remove the holder screw (M3 x 6L x 2pcs)
7. The gyroscope can now be removed.

※Please follow the above steps in reverse for reassembly and replacement.



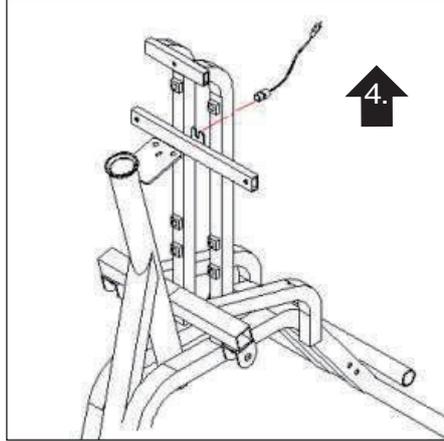
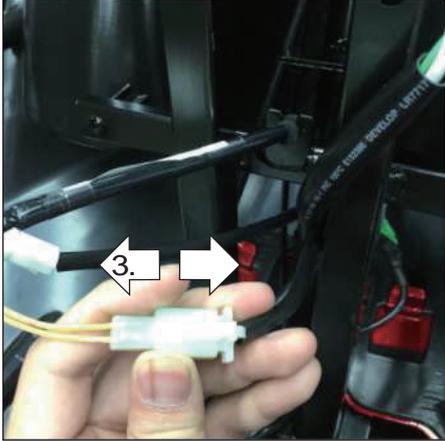


5-4 Temperature sensor :

※Cross tool x 1pcs

- 1.Refer to 3-1 Powering off the battery to power off the scooter.
- 2.Please refer to 5-1 Front slanting maintenance to remove the front slanting.
- 3.Remove the temperature sensor connector.
- 4.The temperature sensor can now be removed from the slot.

※Please follow the above steps in reverse for reassembly and replacement.



※ The temperature sensor is fixed with the slot of the frame. Please fix it tightly when reassembling to prevent it from loosening.

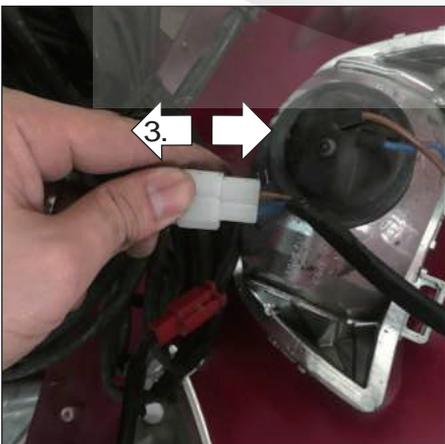
5-5 Headlight maintenance :



※Cross tool x 1pcs

- 1.Refer to 3-1 Powering off the battery to power off the scooter.
- 2.Please refer to 5-1 Front slanting maintenance to remove the front sloping plate.
- 3.Remove the headlight connector.
- 4.Remove the front sloping cover screws (M4 x 12L x 1pcs)
- 5.Remove the headlights from the slot.

※Please follow the above steps in reverse for reassembly and replacement.



※ If the headlights are faulty, please first check whether the headlight connectors and the cable are abnormal. If they have no issue, the bulb may be burnt out. Please replace with a new one immediately.



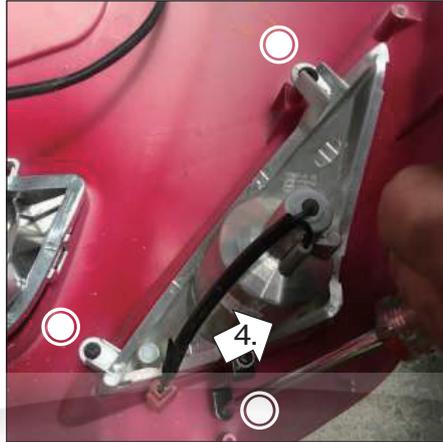
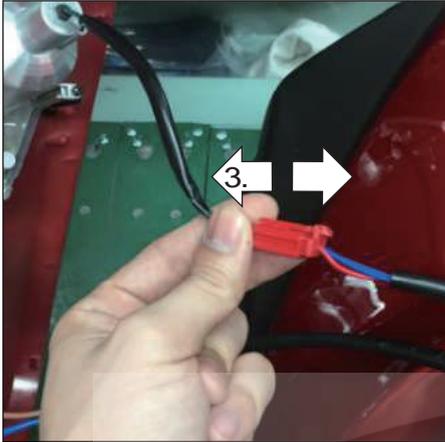
5-6 Front turn light maintenance :

※Cross tool x 1pcs

- 1.Refer to 3-1 Powering off the battery to power off the scooter.
- 2.Please refer to 5-1 Front slanting maintenance to remove the front sloping cover.
- 3.Remove the front (left) turn light connector on the front box.
- 4.Remove the front (left) turn light screws (M4 x 12L x 3pcs)
- 5.Take out the front (left) turn light from the slot.

※The disassembly method of the left/right turn light is the same.

※Please follow the above steps in reverse for reassembly and replacement.



※If the steering light is faulty, please first check whether the steering light connectors and the cable are abnormal. If they have no issues, the bulb may be burnt out. Please replace with a new one immediately.

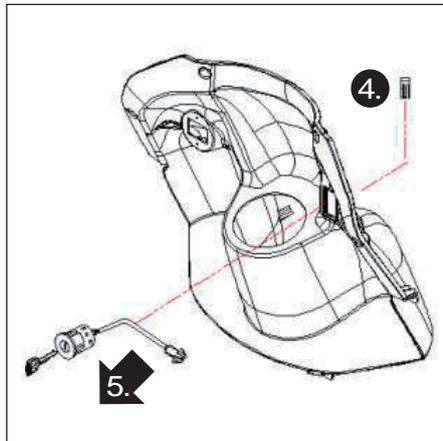
5-7 Main power switch set maintenance :



※Cross tool x 1pcs

- 1.Refer to 3-1 Powering off the battery to power off the scooter.
- 2.Please refer to 5-1 Front slanting maintenance to remove the front sloping plate.
- 3.Remove the main power connector.
- 4.Remove the main power switch set from the slot.
- 5.The entire set of main power switches can now be removed.

※Please follow the above steps in reverse for reassembly and replacement.



※If the main power switch set is damaged, please replace with a new one immediately. Modifying the main power switch set without permission is prohibited.

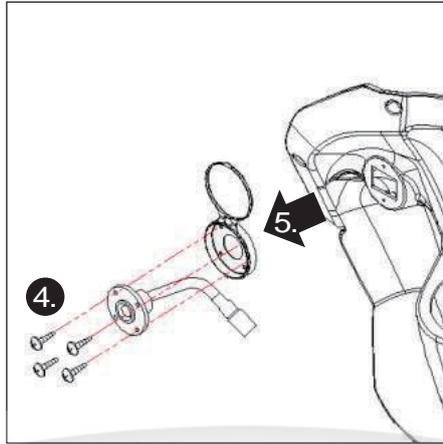
5-8 charging port maintenance :



※Cross tool x 1pcs

- 1.Refer to 3-1 Powering off the battery to power off the scooter.
- 2.Please refer to 5-1 Front slanting maintenance to remove the front sloping plate.
- 3.Remove the charging port connector.
- 4.Remove the charging port screws from the front box (4 pcs).
- 5.The entire set of the charging base now can be removed.

※Please follow the above steps in reverse for reassembly/replacement.



- ※If the charging cover is damaged, it is recommended to replace with a new one to ensure that the charging base is protected; otherwise, liquid or sundries may damage the charging base and even the scooter.
- ※If the charging port is faulty, it cannot be charged. In case of a charging failure, please replace with a new one as soon as possible.
- ※Step 4 : The screw is located in the charging cover and can be removed after opening the charging cover.



6-1 Steering frame maintenance :

※Hex wrench 8 x 2pcs ※internal hexagonal wrench 4 x 1pcs

※Hex wrench 6 x 1pcs

1.Refer to 3-1 Powering off the battery to power off the scooter.

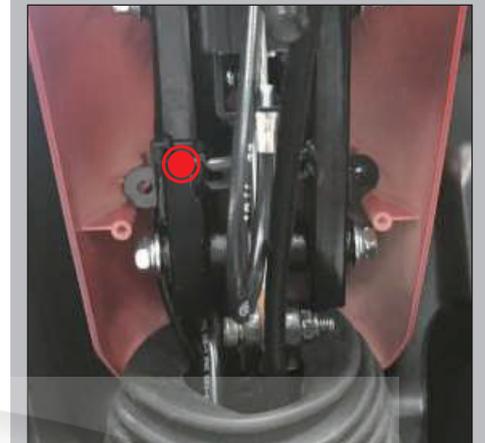
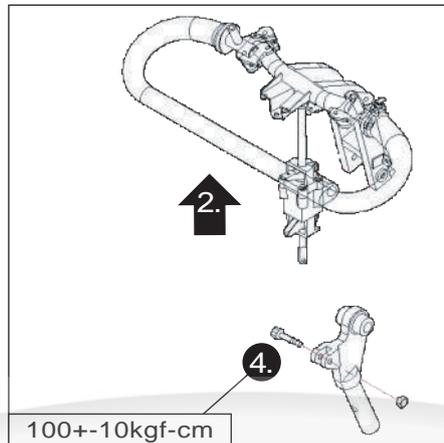
2.Please refer to 4-6 Head steering cover maintenance to remove the cover.

3.Remove the screw set (M8 x 30Lx 1pcs) on the steering.

4.Remove the screw set (M6 x 30L x 1pcs) that connects the steering to the frame.

5.Remove the entire steering set.

※Please follow the above steps in reverse for reassembly and replacement.



※Before removing the steering, the scooter's upper control wiring can be taken out after cutting off the strap (x 1pcs).

6-2 Maintenance of front cover of front box :



※Cross tool x 1pcs

1.Refer to 3-1 Powering off the battery to power off the scooter.

2.Please refer to 5-1 Front slanting maintenance to remove the front sloping plate.

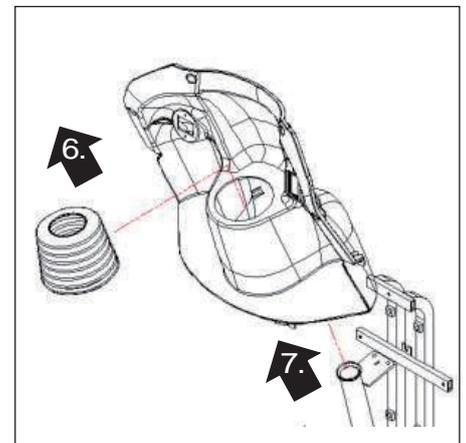
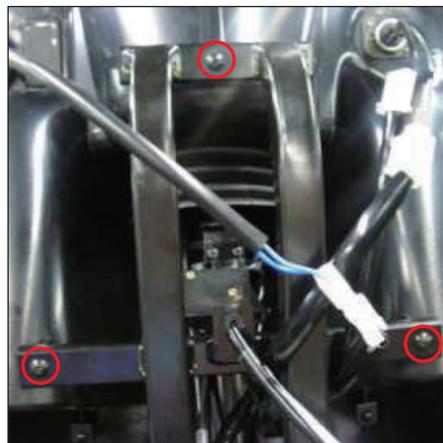
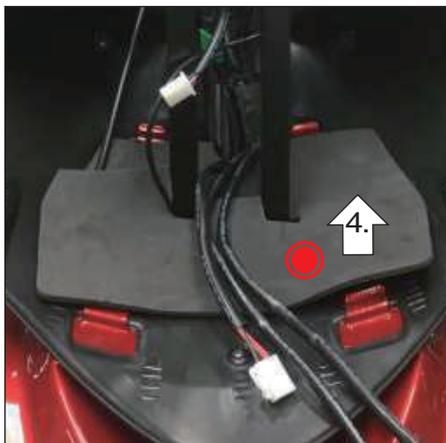
3.Please refer to 6-1 Steering frame maintenance to remove the steering frame.

4.Remove the dust-proof foam below (use Velcro Tape to fix).

5.Remove the fixing screws of the front cover and the frame (M4 x 12L x 3pcs).

6.Remove the protective cover

7.The entire box - front cover can now be removed.



※After the dust-proof foam is removed, please be sure to reassemble it to avoid the accumulation of dust in the front box, which may affect the scooter's operation.



6-3 Front shroud upper cover maintenance :

※Cross tool x 1pcs ※Sleeve tool #10 x 1pcs

1.Refer to 3-1 Powering off the battery to power off the scooter.

2.Please refer to 3-2 Battery removal.

5-1 Front slanting maintenance.

6-1 Steering frame maintenance.

6-2 Maintenance of front cover of front box. to remove the above items.

3.Remove the front shroud upper cover screws (M4 x 12L x 2 pcs)

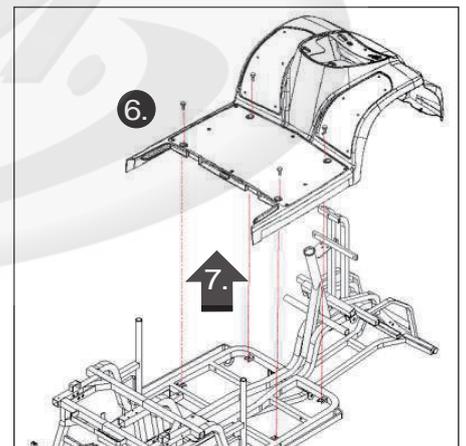
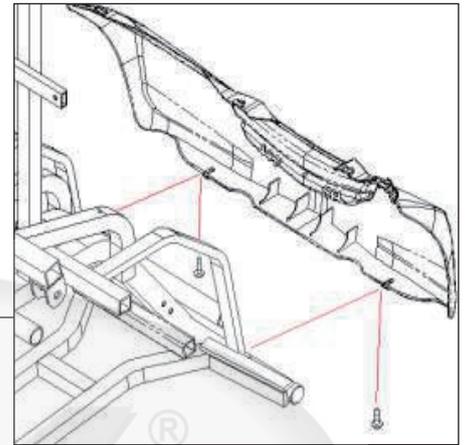
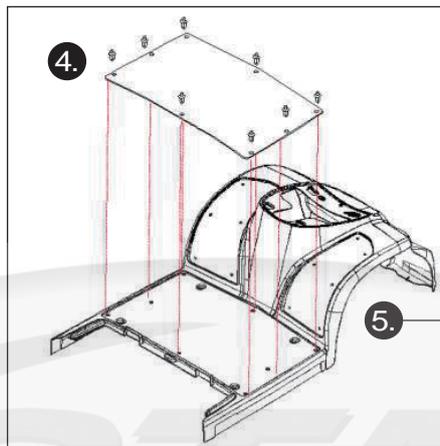
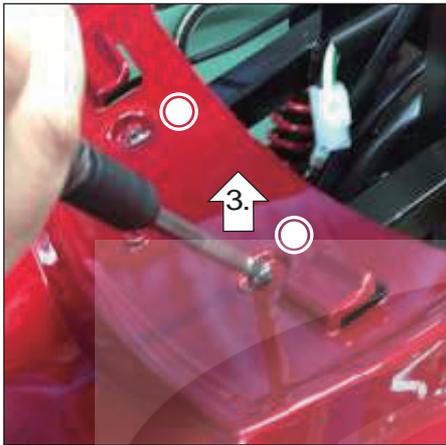
4.Remove the rivet (x8pcs) from the pedal.

5.Remove the lower cover screws (M4 x12L x2pcs).

6.Remove the pedal screws (M6 x 16L x 4pcs).

7.The entire front shroud upper cover can now be removed.

※Please follow the above steps in reverse for reassembly and replacement.



6-4 Front cover maintenance :

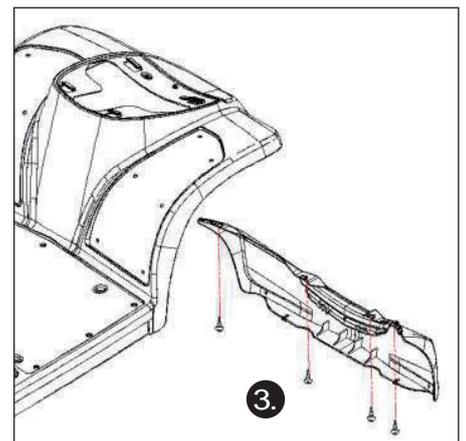
※Cross tool x 1pcs

1.Refer to 3-1 Powering off the battery to power off the scooter.

2.Please refer to 6-3 Front shroud upper cover maintenance to remove the front shroud upper cover.

3.Remove the screws from the front cover (M4 x 12L x 4pcs).

※Please follow these steps in reverse for reassembly and replacement.



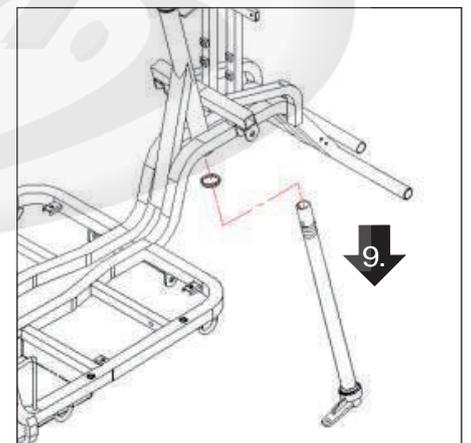
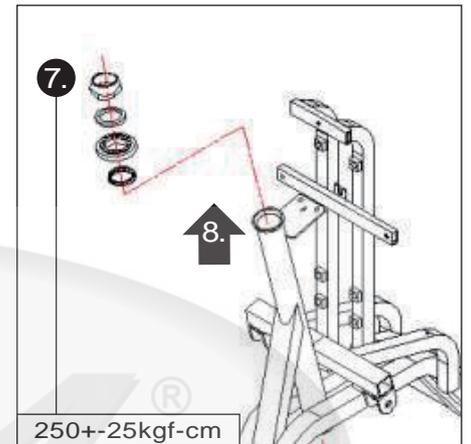
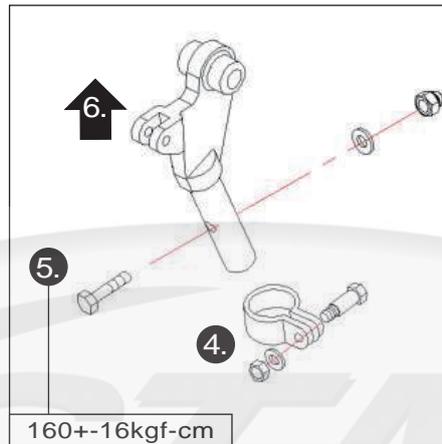
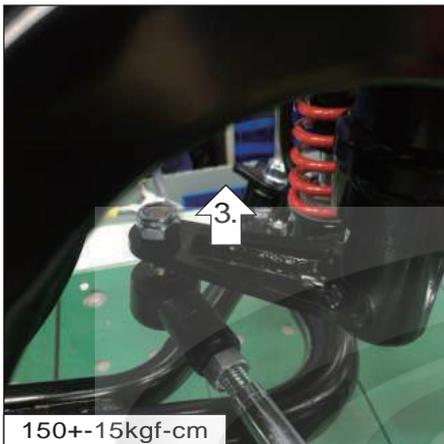
※The front cover can be removed directly from the scooter without removing other items.

6-5 Center bar maintenance :



- ※Hex wrench 10 x 1pcs
- ※Hex wrench 8 x 2pcs
- ※Hex wrench 13 x 1pcs

- 1.Refer to 3-1 Powering off the battery to power off the scooter.
 - 2.Please refer to 6-1 Steering frame repair to remove the Steering.
 - 6-3 Front shroud upper cover maintenance to remove the front shroud upper cover.
 - 3.Remove the coupling nut at the front wheel connecting rod and the bottom of the center bar.
 - 4.Remove the clamp screws.
 - 5.Remove the fixing screws.
 - 6.Remove the lower steering connector.
 - 7.Remove the center bar bead-bowl nut.
 - 8.Remove the entire set of bead-bowls.
 - 9.Remove the lower center bar and the steel bead set.
- ※Please follow the above steps in reverse for reassembly and replacement.



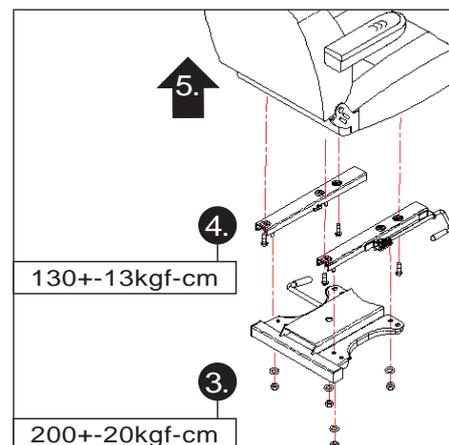
- ※Step 3. The front wheel connecting lever is connected to the bottom of the center bar, which must be removed. If it is not disassembled, the center bar cannot be removed due to the front wheel suspension.
- ※Step 7. To remove the center bar bead-bowl set, a water channel clamp must be used.
- ※A set of steel beads is located at the bottom of the center bar. Please pay attention to prevent falling and loss when disassembling/reassembling. The beads should be placed upwards.
- ※If the steel bead set needs to be reassembled or replaced, it is recommended to apply a small amount of butter to the upper and lower steel bead sets for lubrication.
- ※When removing the center bar, lift the front end of the whole scooter. This should be done with two or more people, even with the aid of a mechanical hoister.

7-1 Seat board maintenance :



※Hex wrench 13 x 2pcs

- 1.Refer to 3-1 Powering off the battery to power off the scooter.
- 2.Please remove the seat first.
- 3.Remove the seat board locking nut (M8 x 4pcs).
- 4.Remove the seat rail screws (M8 x15L x 4pcs).
- 5.The entire seat can now be removed.



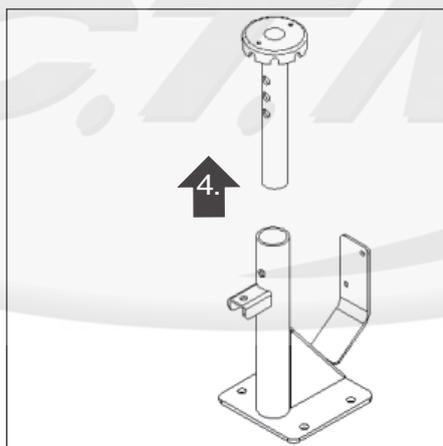
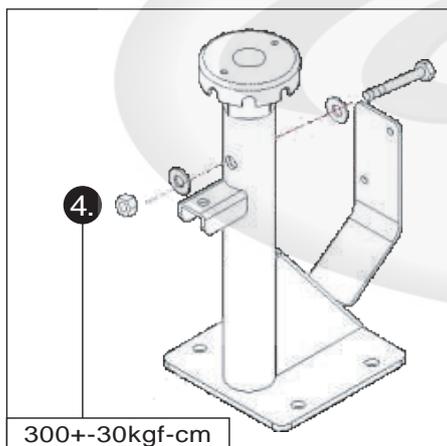
- ※ If the seat rail is abnormal or stuck, etc., please replace with a new seat part immediately.
- ※ If the seat's tipping regulator malfunctions or the leather is damaged, please replace the entire seat immediately and follow the above steps in reverse to reassemble the seat rail / seat board.

7-2 Seat holder adjustment :



※Hex wrench 17 x 2pcs

- 1.Refer to 3-1 Powering off the battery to power off the scooter.
 - 2.Remove the seat and rear shroud lower cover.
 - 3.Remove the fixing screw set of the seat holder (M10 x55L x 1pc).
 - 4.The entire set of the seat holder can now be removed.
- *Please follow the above steps in reverse for reassembly and replacement.

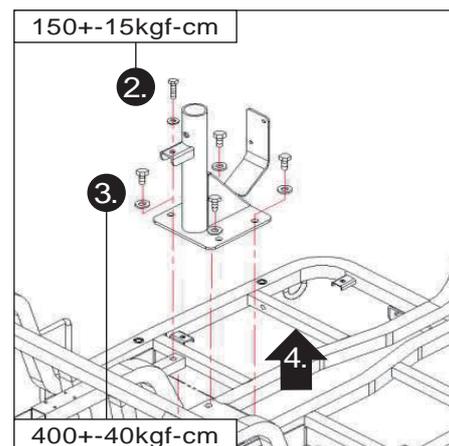


- ※ The seat holder is the connection between the frame and the seat board. If it is damaged, please replace with a new one immediately.

7-3 Seat bracket maintenance :



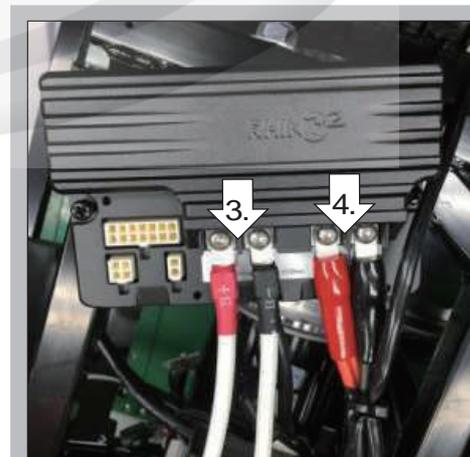
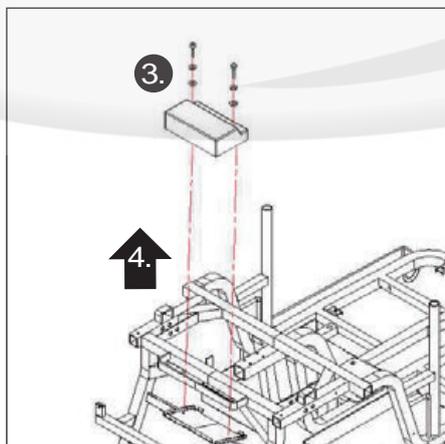
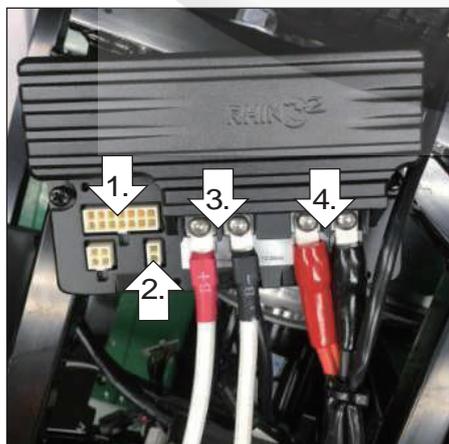
- ※Hex wrench 17 x 2pcs
- ※Cross tool x 1pcs
- 1.Refer to 3-1 Powering off the battery to power off the scooter.
- 2.Remove the upper set of fixing screws (M8 x35L x 1pcs).
- 3.Remove the upper set of fixing screws (M10 x20L x 4pcs).
- 4.The entire set of the seat holder can now be removed.
- ※Please follow the above steps in reverse for reassembly and replacement.



7-4 Main controller maintenance :



- ※Allen wrench 4 x 1pcs
- 1.Refer to 3-1 Powering off the battery to power off the scooter.
- 2.Remove the main control wire screws (M5 x 12L x 4pcs) and the connector. Main controller wiring instructions :
 - (1).Scooter main cable
 - (2).Motor brake cable
 - (3).Battery "+" "-" pole connector
 - (4).Motor "+" "-" pole connector
- 3.Remove the main controller fixing screw (ø4 x 25L x 2pcs).
- 4.The entire set of controllers can now be removed.
- ※Please follow the above steps in reverse for reassembly and replacement.

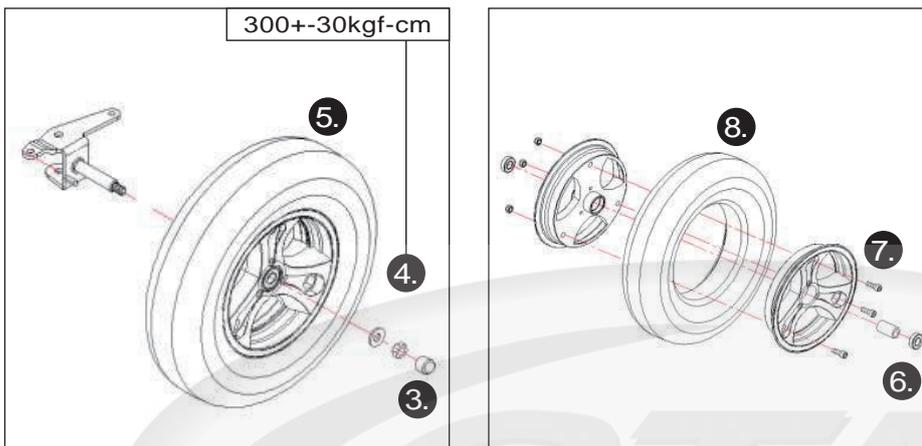


- ※If the function of the electrical equipment of the scooter is abnormal or invalid, the controller connector may have loosened. First check whether the controller connector is loose. If it is normal, the controller may be damaged. Please replace with a new one.
- ※Connector 3, 4 motor / battery "+" / "-" pole connector, please do not connect the wrong position and note that if the connection is wrong, the controller may be burnt out.
- ※After reassembling or replacing the controller, please make sure to properly connect the connector and the connector screw to prevent falling off, causing the scooter to operate abnormally.



8-1 Front wheel maintenance :

- ※ Socket wrench #17 x 1pcs
- ※ internal hexagonal wrench #8 x 1pcs
- 1.Refer to 3-1 Powering off the battery to power off the scooter.
- 2.Please keep the front wheel of the scooter suspending in midair.
- 3.Remove the nut cover of the rim outside
- 4.Remove the lock nut (M10) and the spacer.
- 5.Remove the front wheel.
- ※ Now the tire can be replaced.
- 6.Remove the bearing (2pcs) and socket (1pcs).
- 7.Loosen the rim lock screw (M10 xP1.5 x 35L).
- 8.The rim can now be separated from the tire.
- ※ The left/right front wheels can be disassembled in the same way.
- ※ Please follow the above steps in reverse for reassembly and replacement.



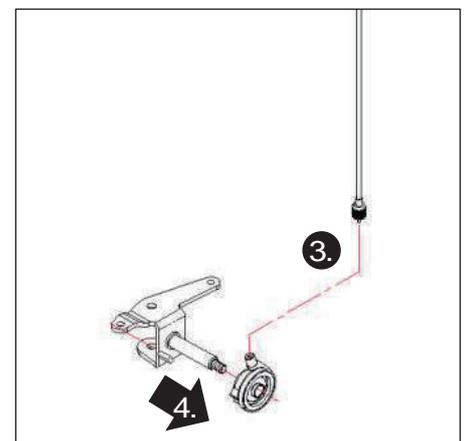
※ Standard front tire specifications :

- ※ Tire pressure: 35-40 psi
- ※ Tread pattern standard: 0.5 mm or more
- ※ The front wheel left/right disassembly method is the same.
- ※ If the tire has abnormalities such as yellowing/deformation / damage / air leakage / shallow tread pattern, please replace with a new one.
- ※ Scooter tires are consumables. It is recommended to check the tires daily before running, in order to ensure safety.
- ※ Avoid placing the scooter tires near a fire source, water source, or heat source to prevent reducing the tire's service life.
- ※ Prevent scooter tires from coming in contact with chemicals and oil to prevent tire deterioration.

8-2 Meter gear maintenance (right front wheel) :



- ※ No tools required
- 1.Refer to 3-1 Powering off the battery to power off the scooter.
- 2.Refer to 8-1 Front wheel maintenance to remove the right front wheel.
- 3.Loosen the meter gear wire.
- 4.Remove the motor gear set.
- ※ Please follow the above steps in reverse for reassembly and replacement.





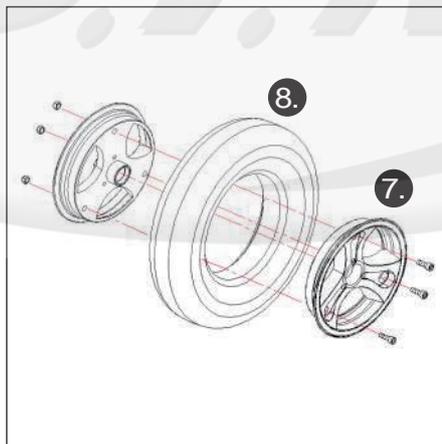
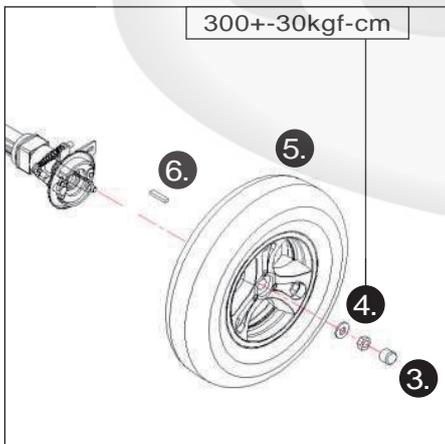
- ※ When reassembling the meter gear, please note the direction of the slot before fixing.
- ※ If the upper-control shows an abnormal rotating speed, please first check whether the connectors on both ends of the meter gear wire are fixed. Refer to 1. Upper-control plate maintenance.
- ※ If the connectors on both ends of the meter gear wire are normal, the motor gear set may be faulty. Please replace with a new one.



8-3 Rear wheel maintenance :



- ※ Socket wrench #17 x 1pcs ※ Allen wrench #8 x 1pcs
- 1. Refer to 3-1 Powering off the battery to power off the scooter.
- 2. Please keep the rear wheel of the scooter suspended in midair.
- 3. Remove the nut cover outside the rim.
- 4. Remove the lock nut (M10) and the spacer.
- 5. Remove the rear wheel.
- 6. The middle of the rim has a "key." Please remove and keep it properly.
- ※ The tire can now be replaced.
- 7. Loosen the rim lock screw (M10 x 35L x 3pcs).
- 8. The rim can now be separated from the tire.
- ※ The left/right front wheels can be disassembled in the same way.
- ※ Please follow the above steps in reverse for reassembly and replacement.



- ※ Standard front tire specifications:
- ※ Tire pressure: 35-40 psi
- ※ Tread pattern standard: 0.5 mm or more
- ※ The front wheel left/right disassembly method is the same.
- ※ If the tire has abnormalities such as yellowing / deformation / damage / air leakage / shallow tread depth, please replace with a new one.
- ※ Scooter tires are consumables. It is recommended to check the tires daily before running to ensure safety.
- ※ Avoid placing the scooter tires near a fire source, water source, or heat source to prevent reducing the tire's service life.
- ※ Prevent scooter tires from coming in contact with chemicals and oil to prevent tire deterioration.
- ※ Step 6. The function of the "key" is to effectively rotate the rear wheel after it is matched with the motor. When reassembling, please insert into the rim gap in the correct direction, with the round end facing inward and the square end facing outward.

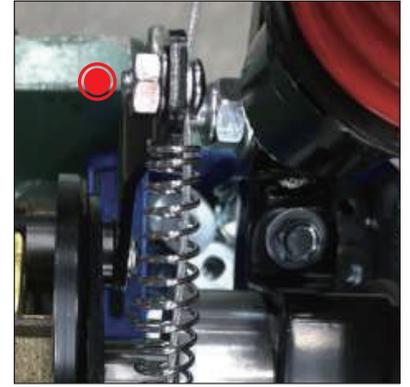
8-4 Left/right brake adjustment :



※Hex wrench #10 x 1pcs

- 1.Refer to 3-1 Powering off the battery to power off the scooter.
- 2.Refer to 8-3 Rear wheel maintenance to remove the rear wheel.
- 3.Loosen the right brake plate adjustment screw.

※It is the same for the left/right brake cables.



※ Please insert and confirm that the brake cables go through the locking screw of the brake plate and lock the brake line cables. If they are not tightly locked, it may cause brake system failure or the scooter to operate abnormally.

※ The other end of the brake cable should be connected to the head brake handle. If the end wiring is in normal condition, the head brake handle may be abnormally connected.

※ In case the electromagnetic brake abnormality has nothing to do with the brake plate / brake cable and the electromagnetic brake needs to be repaired, please refer to the electromagnetic brake repair section.

※ In case of brake failure, check whether the brake cable and the adjustment line are normal. The brake plate may be damaged or worn out. Please replace with a new brake plate.



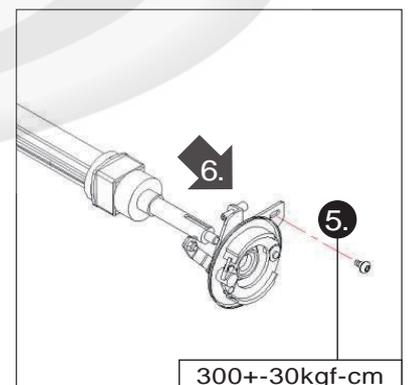
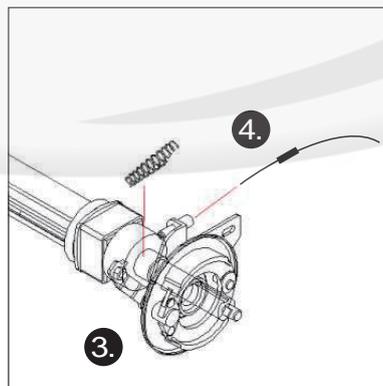
8-5 Left/right brake plate maintenance :



※Hex wrench #10 x 1pcs

※Cross tool x 1pcs

- 1.Refer to 3-1 Powering off the battery to power off the scooter.
- 2.Please refer to 8-4 Left / right brake adjustment : invalid.
- 3.Loosen the right brake adjustment screw.
- 4.Remove the right brake cable and spring.
- 5.Remove the brake plate locking screw (M6 x12L x 1pcs).
- 6.The brake plate set can be removed.



※ The left/right brake plate can be disassembled in the same way.

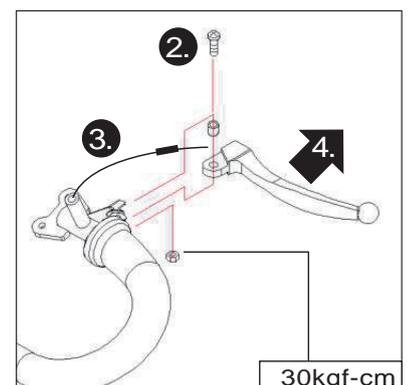
※ Please follow the above steps in reverse for reassembly and replacement.

8-6 Brake handle maintenance :



※Cross tool x 1pcs ※Hex wrench #8 x 1pcs

- 1.Refer to 3-1 Powering off the battery to power off the scooter.
- 2.Remove the fixing screw set (MS x20L x 1pcs).
- 3.Remove the brake cable.
- 4.The brake handle can now be removed.



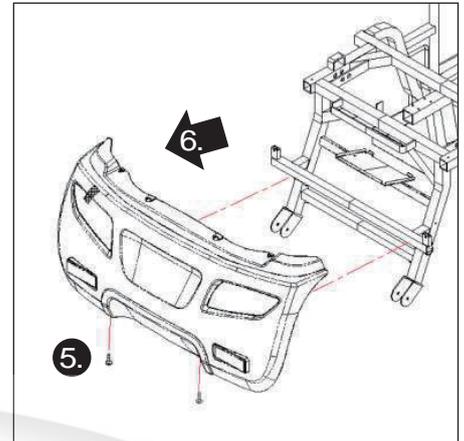
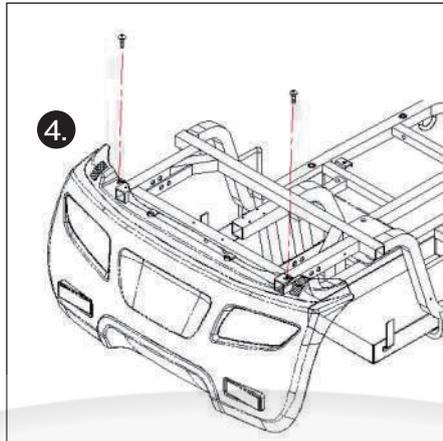
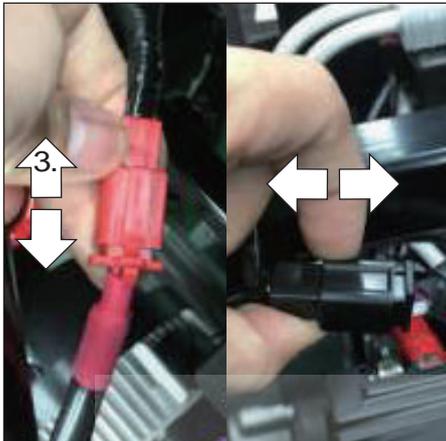
8-7 Rear cover maintenance :



※Cross tool x 1pcs

- 1.Refer to 3-1 Powering off the battery to power off the scooter.
- 2.Remove the scooter seat and the rear shroud upper cover.
- 3.Remove the tail light connector (left : black / right : red).
- 4.Remove the upper locking screw (M4 x12L x 2pcs).
- 5.Remove the lower locking screw.
- 6.The rear cover can now be removed.

※Please follow the above steps in reverse for reassembly and replacement.



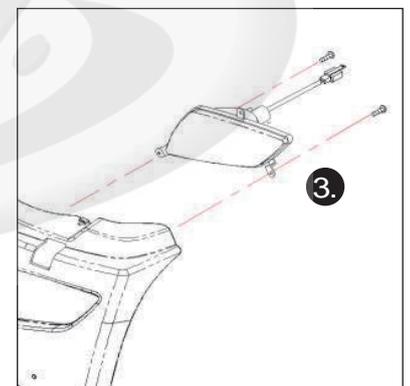
8-8 Tail light maintenance :



※Cross tool x 1pcs

- 1.Refer to 3-1 Powering off the battery to power off the scooter.
- 2.Please refer to 8-7 Rear cover maintenance to remove the rear cover.
- 3.Remove the fixing screws ($\varnothing 3 \times 10L \times 2$ pcs) on the rear cover and tail lights.

※Please follow the above steps in reverse for reassembly and replacement.



※ If the tail light of the scooter is damaged, it is recommended to replace it immediately. The tail lights contain the brake lights and positioning lights. Their malfunctioning may affect the safety of the user.

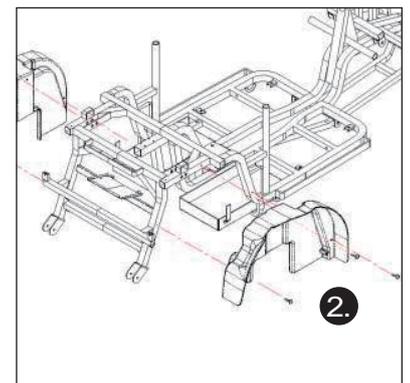
8-9 Left / right fender maintenance :



※Cross tool x 1pcs

- 1.Refer to 3-1 Powering off the battery to power off the scooter.
- 2.Remove the three screws ($\varnothing 4 \times 12L \times 3$ pcs) from the left / right fender.

※Please follow the above steps in reverse for reassembly and replacement.



※ When repairing the rear fender of the scooter, it is not necessary to disassemble any parts, since the fender can be removed and replaced directly from the outside.

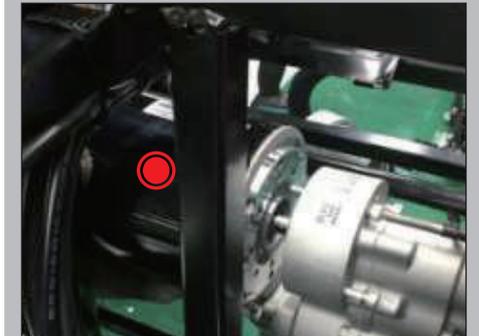
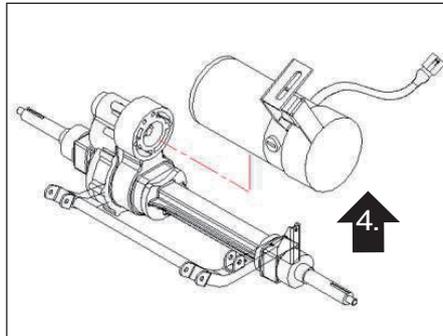
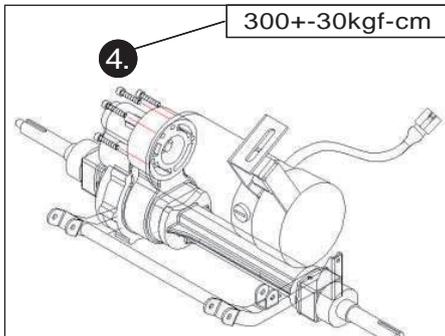


9-1 Motor maintenance :

※#5 Allen wrench x 1pcs

- 1.Refer to 3-1 Powering off the battery to power off the scooter.
- 2.Refer to 7-3 Controller maintenance to unplug the motor power line.
- 3.Remove the motor fixing screws (M6 x 50L x 4pcs).
- 4.The motor can now be removed.

※Please refer back in reverse for reassembly and replacement.



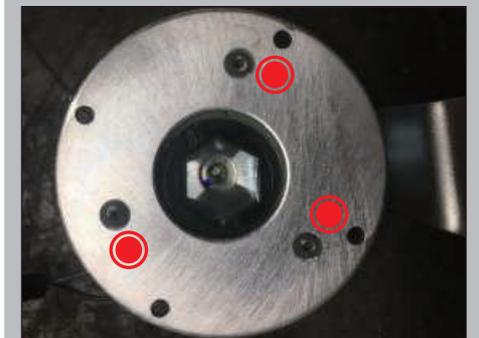
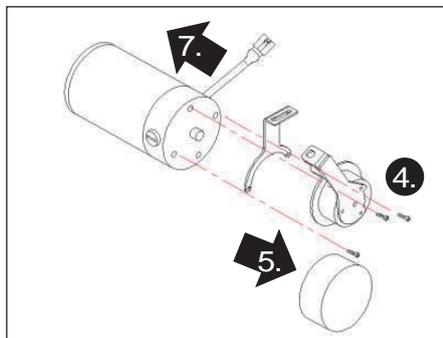
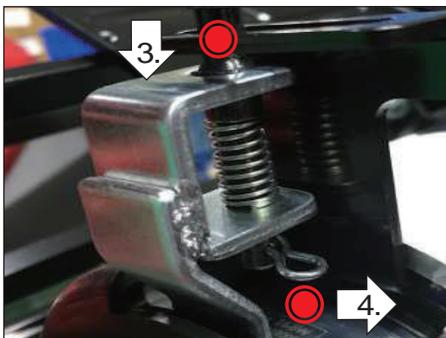
- ※ When disassembling the motor, the motor and the differential mechanism can be removed without removing the rear wheel/rear frame.
- ※ When disassembling the motor, it is recommended that two people work together. One person should remove the screw, while the other holds the motor to prevent the motor from falling after the screw has been loosened.
- ※ The abnormal sound of the scooter motor while running may be related to the motor / differential mechanism. Please check that first.

9-2 Electromagnetic brake maintenance :

※Cross tool x 1pcs

- 1.Refer to 3-1 Powering off the battery to power off the scooter.
- 2.Refer to 9-1 Motor maintenance to remove the motor.
- 3.Press the gear lever down.
- 4.Pull the slot outward, and then the gear lever and spring can be removed.
- 5.Remove the electromagnetic brake protection cover.
- 6.Remove the electromagnetic brake screws (ø3 x 15L x 3pcs).
- 7.Remove the electromagnetic brake.

※Please follow the above steps in reverse for reassembly and replacement.



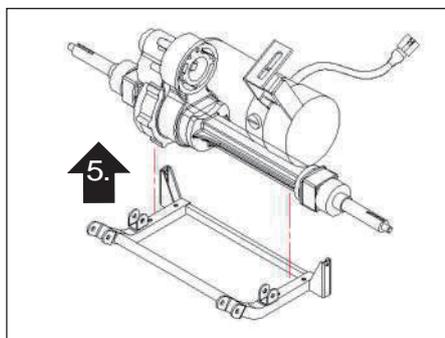
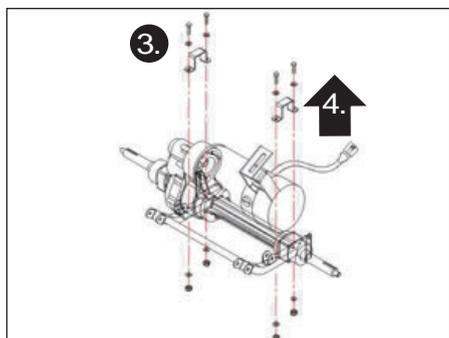
- ※ When reassembling the electromagnetic brake, please pay attention to the position of the gear lever.
- ※ The electromagnetic brakes shall be cleaned regularly. After removing the electromagnetic brake, remove the three hexagon socket screws (pictured below) on the electromagnetic brake. After removing the brake pad, clean the brake pad with a brush (do not mix with detergent, just clean with a dry brush).

9-3 Differential mechanism maintenance :



※Hex wrench 13 x 2pcs

- 1.Refer to 3-1 Powering off the battery to power off the scooter.
 - 2.Refer to 3-3 Controller maintenance to unplug the motor power line.
 - 3.Remove the motor mount screws (M8 x 45L x 4pcs) on both sides.
 - 4.The motor holder on both sides can now be removed.
 - 5.The entire set of the differential mechanism can now be removed.
- ※Please follow the above steps in reverse for reassembly and replacement.



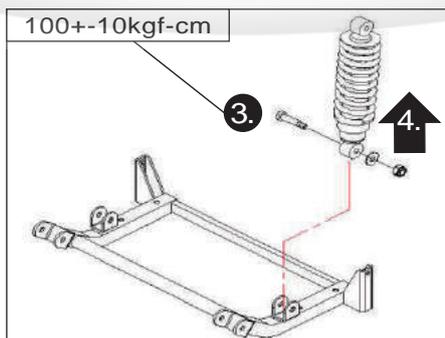
※The differential mechanism is heavy, so it is recommended that two or more people perform maintenance on it.

9-4 Rear shock absorber maintenance :



※Hex wrench 17 x 2pcs

- 1.Refer to 3-1 Powering off the battery to power off the scooter.
 - 2.Remove the rear shock absorber upper fixing screw set (M10 x 67L x 1pcs).
 - 3.Remove the rear shock absorber lower fixing screw set (M10 x 45L x 1pcs).
 - 4.The entire rear shock absorber set can now be removed.
- ※The left/right rear shock absorber can be disassembled in the same way.
※Please follow the above steps in reverse for reassembly and replacement.



- ※The vibration of the scooter is mainly absorbed by the shock absorber. If the vibrations are too large, it may be related to the shock absorber.
- ※The shock absorber may make abnormal sounds when running. This is mainly due to the collision of the shock absorber with the plate spring, the frame, or the shaft, the damage or loosening of the rubber pad, or the deformation of the shock absorber dust cylinder. Please replace it with a new one.
- ※When steering, the incline of the scooter shroud is obviously increased and may even cause a sideslip. This is mainly because the damping force of the shock absorber is too small to effectively suppress the compression of the spring. Please replace it with a new one.
- ※When reassembling the shock absorber spring, the larger number of turns should face upwards, and the smaller number of turns should face downward.

9-5 Front shock absorber maintenance :

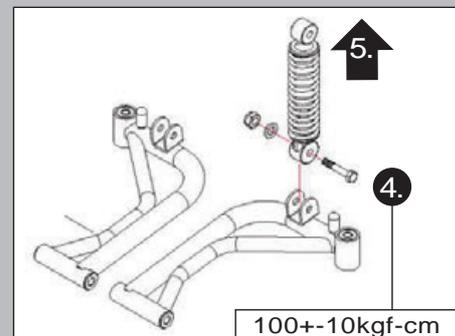


※Hex wrench 17 x 2pcs

- 1.Refer to 3-1 Powering off the battery to power off the scooter.
- 2.Refer to 6-3 Front shroud upper cover maintenance to remove the upper cover.
- 3.Remove the rear shock absorber upper fixing screw set (M10 x 67L x 1pcs).
- 4.Remove the rear shock absorber lower fixing screw set (M10 x 45L x 1pcs).
- 5.The entire rear shock absorber set can now be removed.

※The left / right rear shock absorber can be disassembled in the same way.

※Please follow the above steps in reverse for reassembly and replacement.



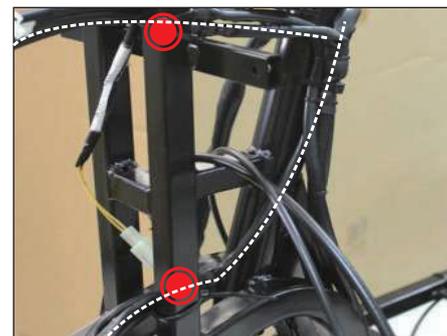
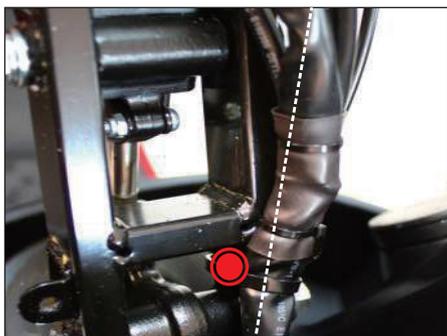
- ※The vibration of the scooter is mainly absorbed by the shock absorber. If the vibrations are too large, it may be related to the shock absorber.
- ※The shock absorber may make abnormal sounds when running. This is mainly due to the collision of the shock absorber with the leaf spring, the frame, or the shaft, the damage or loosening of the rubber pad, or the deformation of the shock absorber dust cylinder. Please replace it with a new one.
- ※When steering, the incline of the scooter shroud is obviously increased and may even cause sideslip. This is mainly because the damping force of the shock absorber is too small to effectively suppress the compression of the spring. Please replace it with a new one.
- ※When reassembling the shock absorber spring, the larger number of turns should face upwards, and the smaller number of turns should face downward.

9-6 Main cable maintenance :

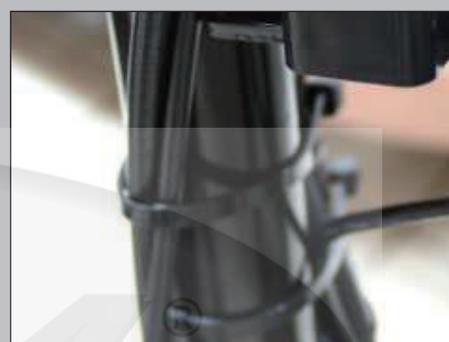
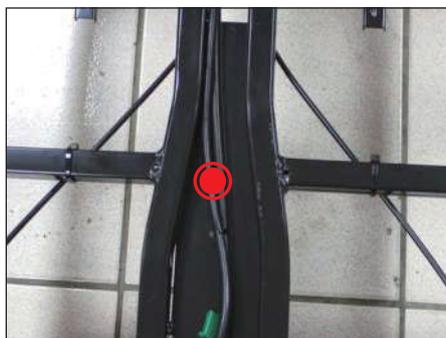
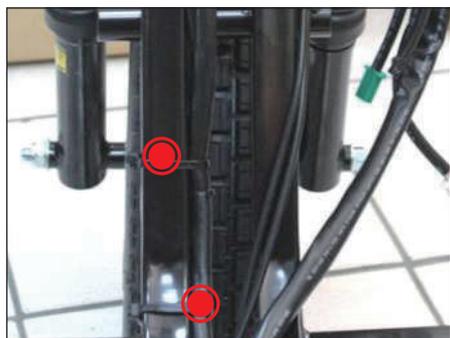


※Scissors x 1pcs

- 1.Refer to 3-1 Powering off the battery to power off The scooter.
 - 2.Refer to 3-2 Battery removal to remove the battery connector.
 - 4-4 Panel wiring instruction to remove the panel wiring
 - 4-6 Steering cover maintenance to remove the cover.
 - 5-1 Front slanting maintenance to remove the internal connector.
 - 6-3 Front shroud upper cover maintenance to remove the upper cover.
 - 7-4 Main controller maintenance to remove all connectors.
 - 8-7 Rear cover maintenance to remove the tail-light connector.
- 3.The main line goes to the front of the steering and cuts the upper strap (x 1pcs).
 - 4.The trace extends to the lower center bar bead-bowl nut and cuts the upper band (x 1pcs).
 - 5.Find the relevant connector on the front of the frame and cut the strap (2pcs).
- ※Upper strap fastening : power connector / charging base connector.
 - ※Lower strap fastening : headlight / steering light connector.



6. Cut the main trace strap on the left side of the front frame (2pcs).
 7. The main line passes through the groove at the bottom of the frame. Please pull it directly away from the groove.
 8. The main line extends to the top of the rear frame and cuts the strap (x 1pcs).
- ※ The entire brake cable can now be removed.
 - ※ Please follow the above steps in reverse for reassembly and replacement.



- ※ The cable tie should be neither too loose nor too tight. *All wire set bends should be no less than 90 °.
- ※ The connectors of each part must be tightly connected and must not be loose.
- ※ Step 6. Do not interfere with the micro switch when arranging the line.
- ※ Step 6. The two fixing straps are one for fixing the brake cable and the meter gear wire (loosen and fix), and the other for fixing the main line (loosen and fix).
- ※ If the electric equipment of the scooter is operating abnormally, please check or replace it first :
 1. Corresponding electrical connectors and equipment.
 2. Upper control panel connector and equipment.
 3. Main controller connector and equipment. If there is no abnormality, check the main line and replace it with a new one.
- ※ When the main line is reassembled or replaced, be sure to retie the cut-open fixing straps as described above and fix it without tightening too tightly.
- ※ The brake cable trace is on the right side of the scooter, and the main line is on the left side; the main line must be fixed on the left side of the frame to prevent interference.

9-7 Brake cable maintenance :



※Scissors x 1pcs ※Hex wrench #10 x 1pcs

1.Refer to 3-1 Powering off the battery to power off the scooter.

2.Refer to 3-2 Battery removal to remove the battery connector.

4-4 Panel wiring instruction to remove the panel wiring.

4-6 Steering cover maintenance to remove the cover.

5-1 Front slanting maintenance to remove the internal connector.

6-3 Front shroud upper cover maintenance to remove the upper cover.

7-4 Main controller maintenance to remove all connectors.

8-6 Brake handle maintenance to remove the brake handle.

8-7 Rear cover maintenance to remove the tail light connector.

3.Starting from the head, the brake cable goes to the left of the steering and cuts the upper fixed strap (x 1pcs).

4.The trace extends to the right side of the lower center bar bead-bowl nut and cuts the upper fixed strap (x 1pcs).

5.The trace extends to the right side of the lower front frame and cuts the upper fixed strap (x 1pcs).

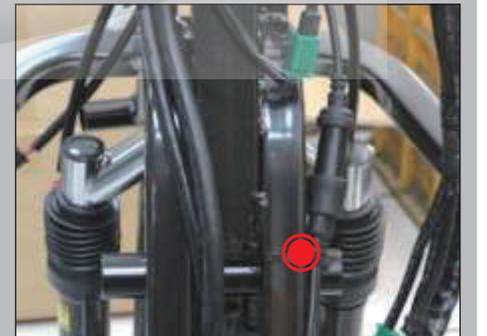
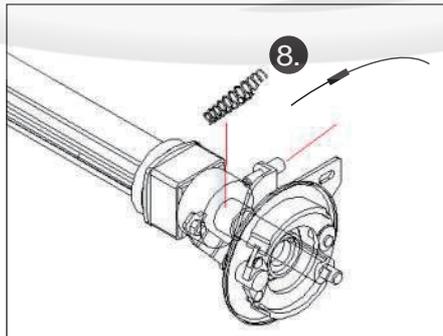
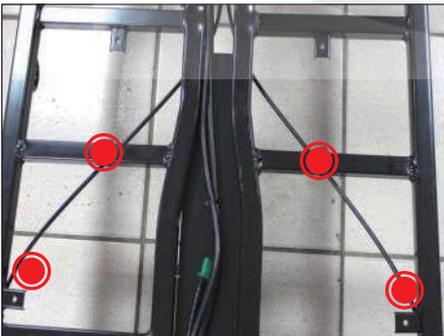
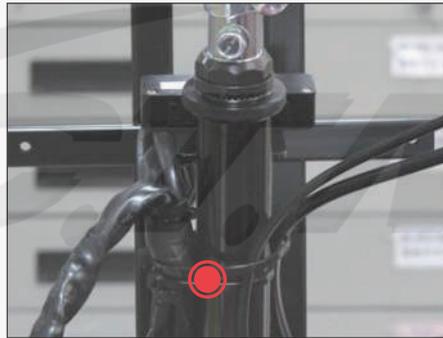
6.The brake trace goes separately from the sides of the frame to connect the left/right rear wheel brake disks and cuts the upper fixed strap (x 4pcs).

7.Loosen the left/right brake adjustment screws.

8.Remove the left/right brake cable and spring.

※The entire brake cable can now be removed.

※Please follow the above steps in reverse for reassembly and replacement.



※ If the scooter's manual brake fails, please check the brake disk first. If there is no abnormality, check or replace the brake cable.

※ When the brake cable is reassembled or replaced, be sure to retie the cut-open fixing straps as described above and fix it without tightening too tightly.

※ Please let the brake line go to the right side of the scooter, and the main line to the left side; the brake cable must be fixed to the right side of the frame to prevent interference.

Check for troubleshooting

Checked part	Check content	Processing method
N-D lever	Is the gear adjustment abnormal?	9-2 Electromagnetic brake maintenance
Buzzer	Does it set off a sound when working?	
Battery indicator	Is the battery indicator light on?	4-3 Control panel maintenance
	Is the low power alarm displayed?	3-5 Charging operation instruction
Rear mirror	Is there a situation of defacement?	Please clean and wipe
	Is it loose?	Please lock and adjust
Starter lever	Is it normal to move forward / backward?	4-5 Maintenance of the VR initiator controller
	Is the electromagnetic brake normal?	9-2 Electromagnetic brake maintenance
Headlight	Is the warning light/brake normal?	5-5 Headlight maintenance
	Is the headlight / turning light normal?	5-6 Turn light maintenance 8-8 Tail light maintenance
Speed adjustment button	Is the function normal?	4-3 Control panel maintenance
Armrest	Does it shake?	Please fix the fixing screws
Tire	Is there any air leakage / cracking / yellowing / foreign material penetration?	8-1 Front wheel maintenance
	Is the wheel pattern depth (0.5 mm) sufficient?	8-3 Rear wheel maintenance
	Is the front/rear wheel shaking when rotating?	
Motor	Is there any abnormality / uneven sound during operation?	9-1 Motor maintenance
Charger	Is the charging operation normal?	3-5 Charging operation instruction
Seat board	Is the whole function smooth and fixed?	7-1 Seat board maintenance
Electric equipment	Is the battery terminal loose?	3-4 Battery connection cable disassembly
	Is the battery line off or damaged?	3-4 Battery connection cable maintenance

Self-Diagnostic Warning Light

Number of flashes	Possible cause :	Processing method
1	Battery Low	The batteries are running low. ※ Recharge the batteries.
2	Low Battery Fault	The batteries have run out of charge. ※ Recharge the batteries. ※ Check the battery and associated connections and
3	High Battery Fault	Disconnect the battery pack, and check the battery condition.
4	Current limit time-out or controller overheat	Do not drive up steep slopes or overload the scooter.
5	N-D lever is not set to D-position	Switch to D (drive) position. Turn off the power and turn on again.
6	The throttle is not in Neutral	Release the throttle to restart. If it is invalid, refer to the throttle maintenance.
7	Starter lever or related cable failure	Refer to the panel maintenance. If it is invalid after the connector is reconnected, replace it with a new one.
8	Motor Voltage	The motor or its associated wiring is faulty. ※ Check the motor and associated connections and wiring.
9	Controller failure or overheating	Refer to the controller maintenance, replace with a new part if it is invalid after the connector is reconnected. Stop the scooter for 10-15 minutes to let the controller cool down.