

# Service Manual

Rechargeable Shaver

Model No. **ES-SL41**

Asia  
Middle East



## **⚠ WARNING**

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

## **IMPORTANT SAFETY NOTICE**

There are special components used in this equipment which are important for safety. These parts are marked by **⚠** in the Schematic Diagrams, Circuit Board Diagrams, Exploded Views and Replacement Parts List. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire or other hazards. Do not modify the original design without permission of manufacturer.

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# 1 Warning

## Caution:

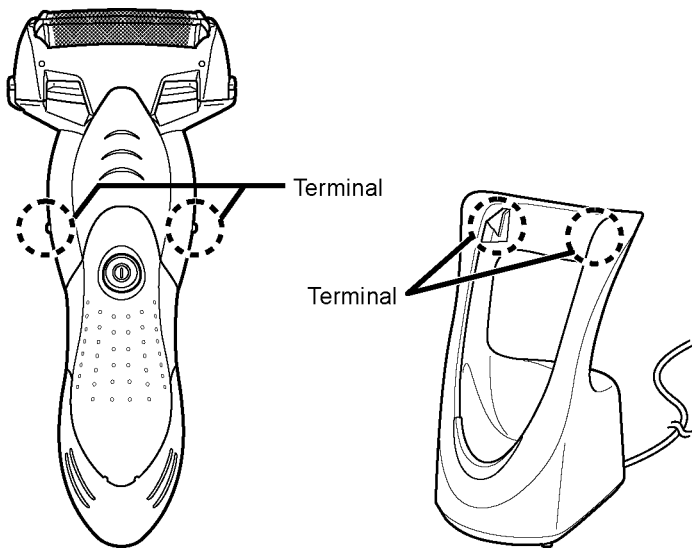
- Pb free solder has a higher melting point than standard solder; Typically the melting point is 50 - 70°F (30 - 40°C) higher. Please use a soldering iron with temperature control and adjust it to 750 ± 20°F (400 ± 10°C). In case of using high temperature soldering iron, please be careful not to heat too long.
- Pb free solder will tend to splash when heated too high (about 1100°F / 600°C).

# 2 Specifications

Power source	for Taiwan	AC 110V, 50-60Hz	
	for Korea	AC 220V, 60Hz	
	for Asia and Middle East	AC 220-240V, 50-60Hz	
Motor voltage	1.2 V		
Charging time	RE7-71 for Taiwan	110V ~	Approx. 8 hours
	RE7-73 for Korea	220V ~	Approx. 8 hours
	RE7-74 for Asia and Middle East	220V ~	Approx. 12 hours
		230V ~	Approx. 10 hours
		240V ~	Approx. 8 hours
Supplied accessory	Cleaning brush		

# 3 Troubleshooting Guide

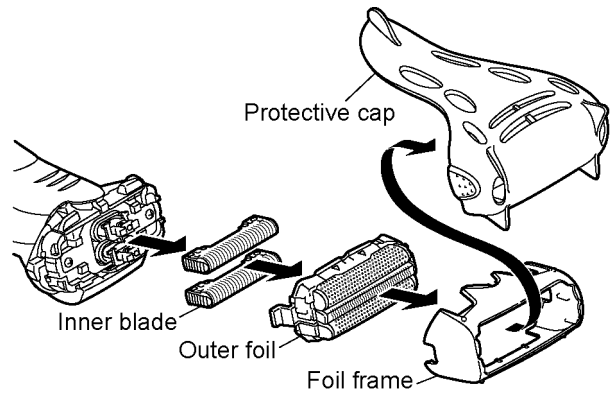
<TROUBLE>	<CHECK.>	<REMEDY>
Motor does not rotate. Does not charge. Functions for a moment and stops.	<p data-bbox="718 235 877 257" style="text-align: center;">&lt;CHECK AC ADAPTOR.&gt;</p> Connect the rated voltage to the normal main unit by the AC adaptor. Check if the charge indicator lamp of AC adaptor is lit.	NO → Replace AC adaptor.
	↓ OK	
	Charge the main unit with the AC adaptor from a customer for approximately 30 minutes. And check if the main unit operates or not.	NO → Replace AC adaptor.
	↓ OK	
	<p data-bbox="670 481 925 504" style="text-align: center;">&lt;CHECK RECHARGEABLE BATTERY.&gt;</p> Okay if the voltage of rechargeable battery is more than approximately 1.2V DC between (+) and (-) terminals.	NO → Replace rechargeable battery.
	↓ OK	
	<p data-bbox="734 616 861 638" style="text-align: center;">&lt;CHECK MOTOR.&gt;</p> Okay if motor rotates when DC1.2V is applied to (+) and (-) terminals.	NO → Replace motor.
	↓ OK	
	Replace module chassis assembly.	
	↓ NO If it does not work properly	
	<p data-bbox="718 806 877 828" style="text-align: center;">&lt;CHECK TERMINALS.&gt;</p> Check if there is any dirt or rust around the terminal of main unit and AC adaptor.	NO → Clean the terminals only with a soft close slightly dampened with tap water or tissue.



# 4 Disassembly and Assembly Instructions

Follow the procedure below to disassemble the main unit.

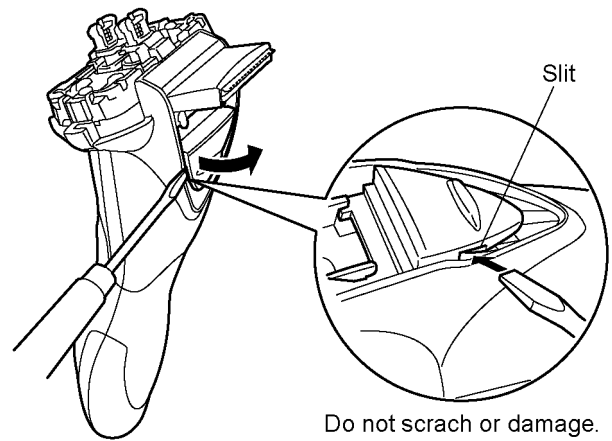
1. Remove the cap, the outer foil with foil frame and the inner blades.



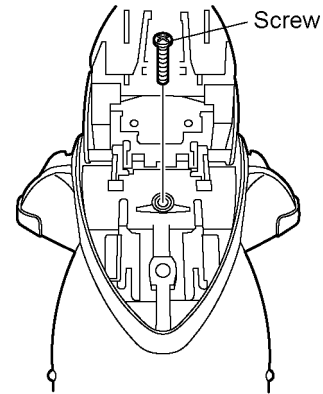
2. Slide the trimmer handle up to open the trimmer and unhook the trimmer handle by inserting something like a slotted screwdriver or plastic spatula into a slit.

**NOTE:**

Make sure not to scratch or damage on the housing.

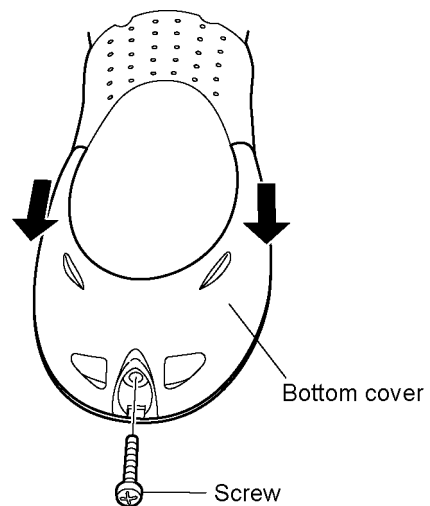


3. Loosen a screw from inside of trimmer assembly.



4. Loosen a screw from bottom cover.

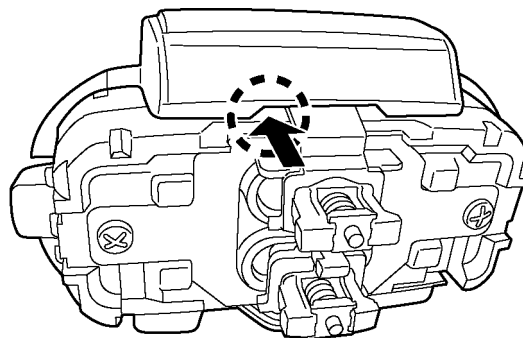
5. Remove the bottom cover.



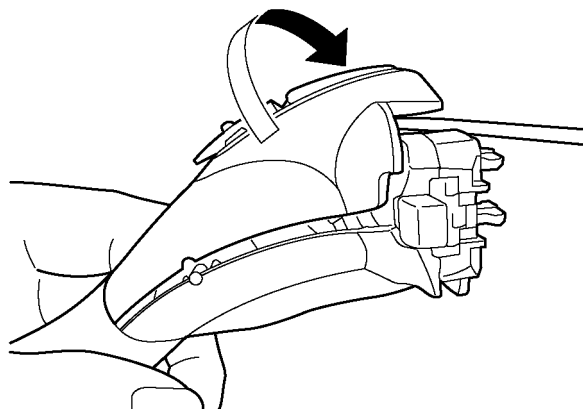
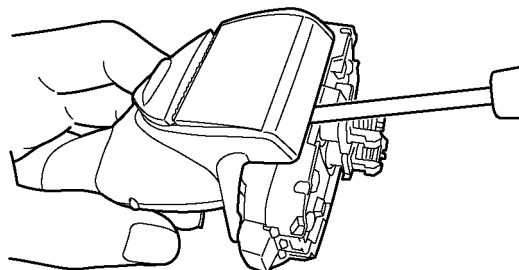
6. Insert the something like a slotted screwdriver into the internal left side of the trimmer assembly as the figure.

**NOTE:**

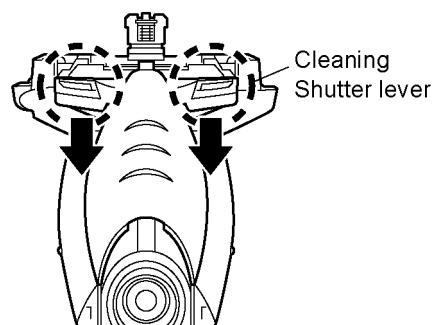
Confirm the location. If the screwdriver is inserted right side, the trimmer hooks may be broken.



7. Remove the trimmer assembly from the left side.



8. Push down the cleaning shutter lever.

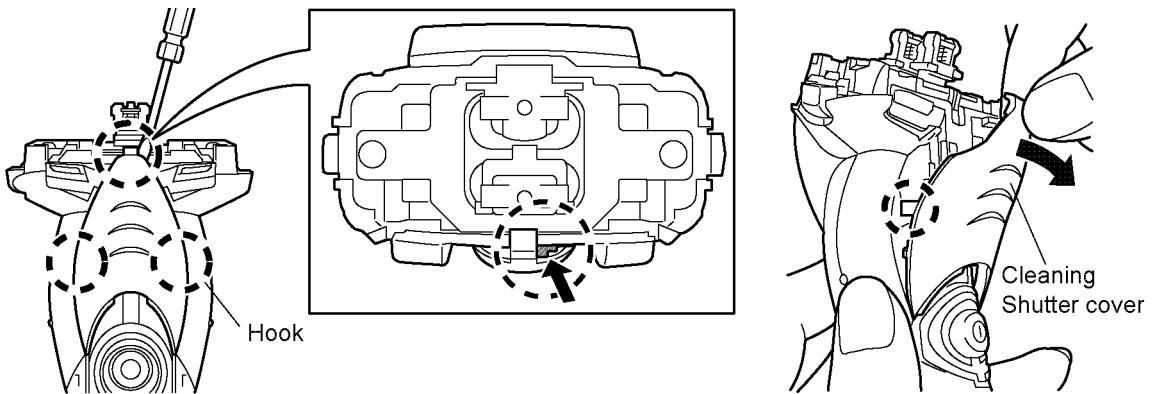


9. Insert the something like a slotted screwdriver into the right side of the cleaning shutter cover. Remove it from the upper side.

**NOTE:**

There are three hooks, top, right and left side.

If the screwdriver is inserted into the left side, the hooks may be broken or caused any scratch.

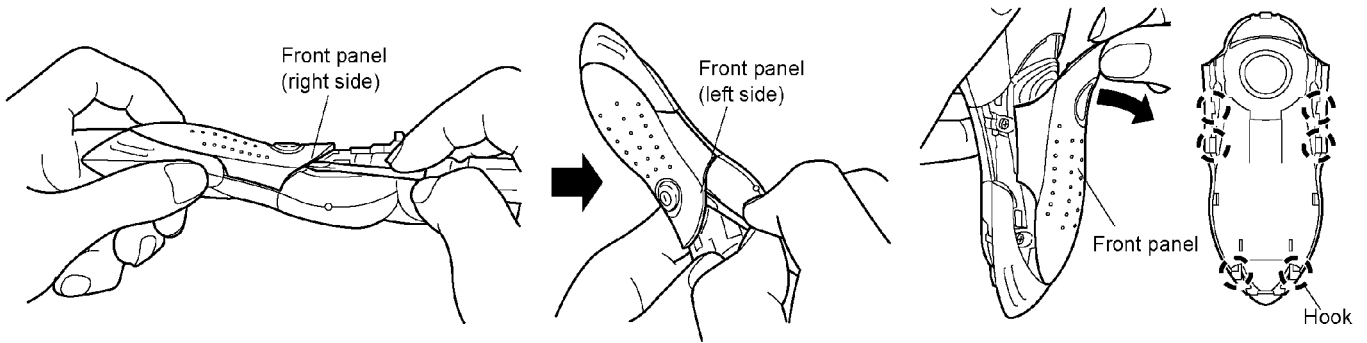


10. Insert the something like a slotted screwdriver into the right side of the front panel to raise it up as the figure.

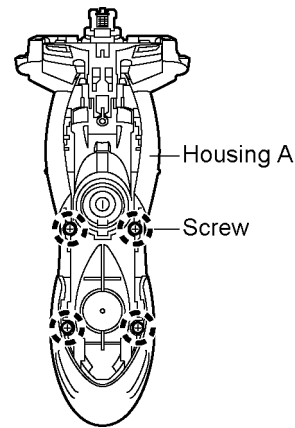
And then, insert a slotted screwdriver into the left side of the front panel and remove it from the left side.

**NOTE:**

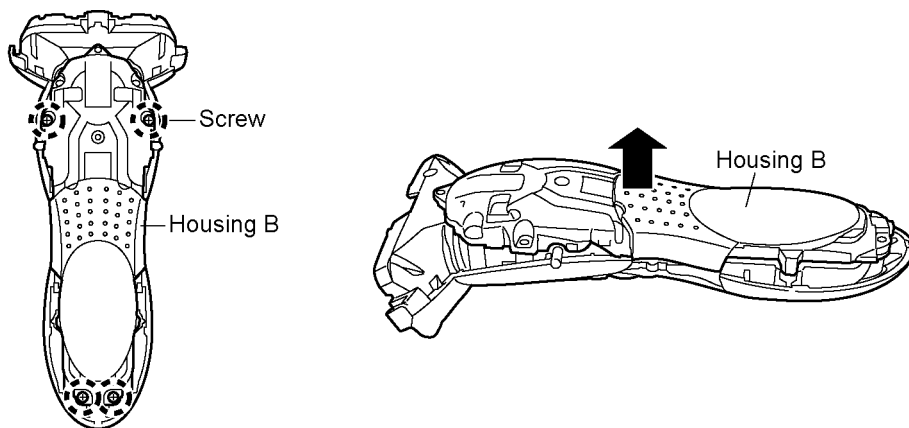
There are seven hooks on top, right and left side. If the screwdriver is inserted into the left side first, the hooks may be broken.



11. Loosen four screws from housing A.

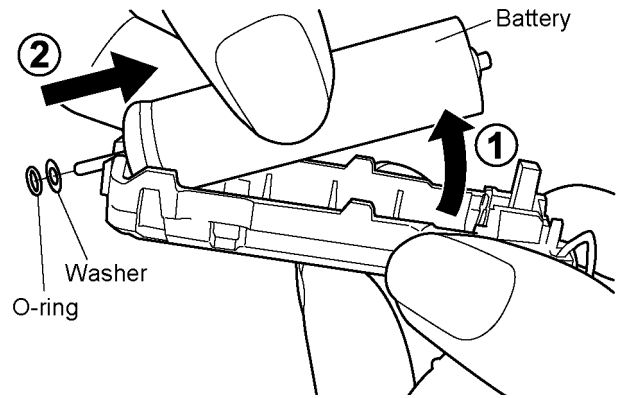


12. Loosen four screws from housing B. And remove the housing B.



13. Slide the module and battery assembly to slant upward.

14. Remove the battery with o-ring and washer from the chassis.



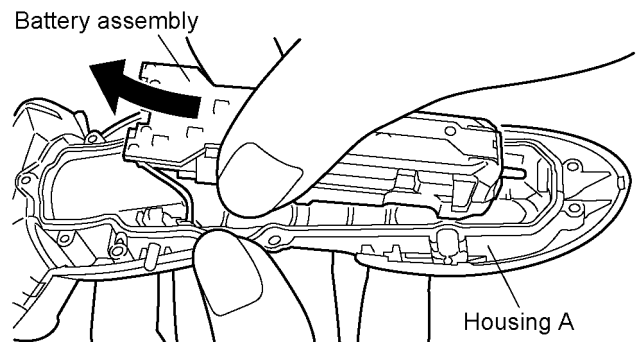
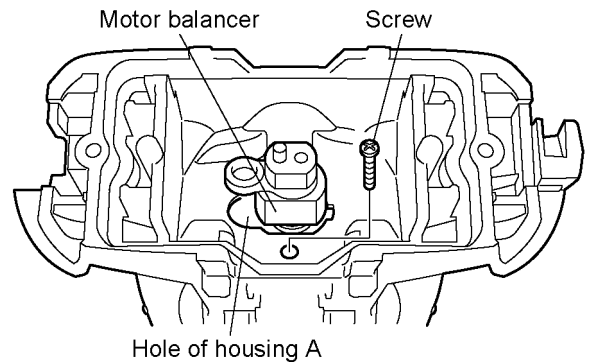
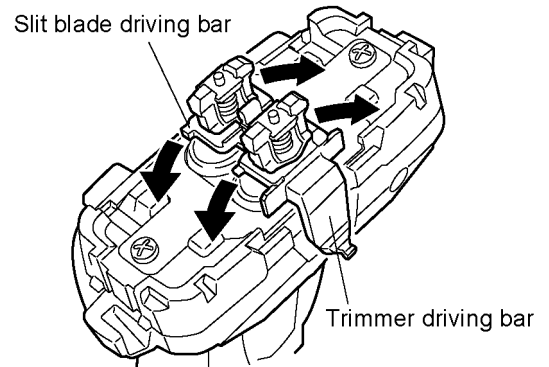
**\* For driving block disassembly.**

15. Remove the trimmer driving bar or the slit blade driving bar with pressing bars outward.

16. Loosen two screws on top and remove retaining plate.

17. Remove waterproof rubber and two driving heads.

18. Loosen a screw on top. Fit the shape of motor balancer and the hole of housing A and take out the motor from housing A.



## 5 CAUTIONS IN ASSEMBLY

### NOTE:

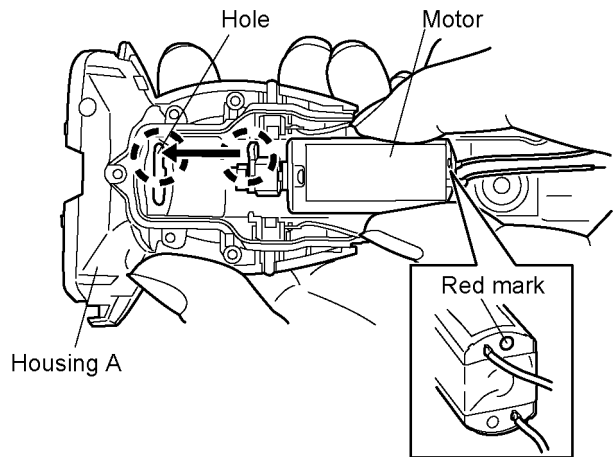
When reassembling, replace the new waterproof rubber.  
Make sure whether there is NO foreign substance sticking around a part covered with the water seal.

### NOTE:

Make sure to assemble the battery last in order to avoid short-circuited.

### 5.1. Motor

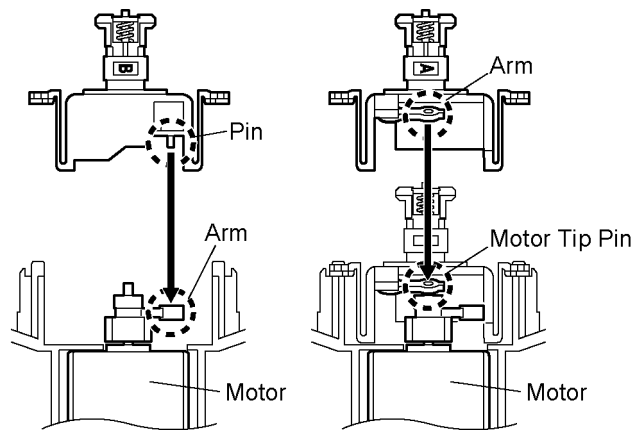
Place the red mark on upper side. Fit the shape of motor balancer and the hole of housing A and insert into housing A.



### 5.2. Driving heads

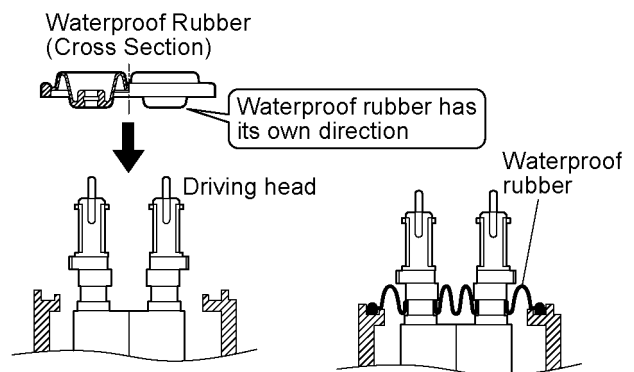
Insert a tip pin of driving head 'B' into the hole of motor arm. And fit the projections of housing into the hole of driving head B.

Place a motor tip pin toward you. Insert a motor tip pin into the hole of driving head 'A' and fit the projections of housing into the hole of driving head A.



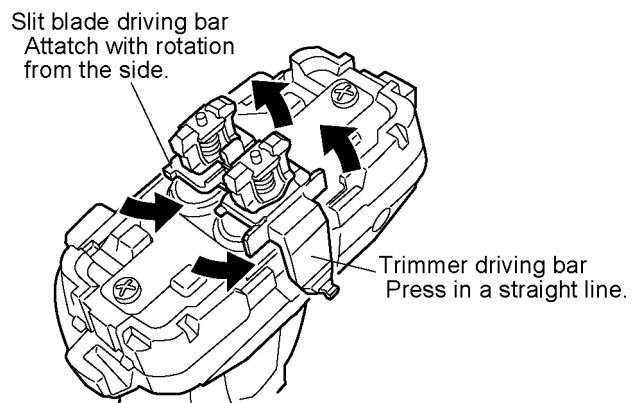
### 5.3. Waterproof rubber

The waterproof rubber must be fitted the right way around.  
Install as shown in figure by inserting firmly to the set position.



### 5.4. Driving bars

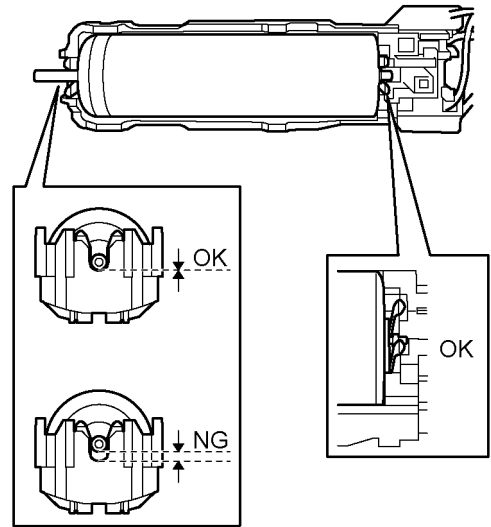
Set the trimmer driving bar and the slit blade driving bar.





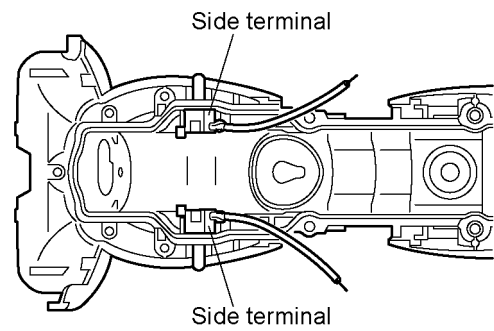
## 5.5. Rechargeable battery

Insert the rechargeable battery into chassis. Attach the battery o-ring and washer to the battery.



## 5.6. Side terminal

Insert the side terminals on both sides.



## 5.7. Module chassis assembly

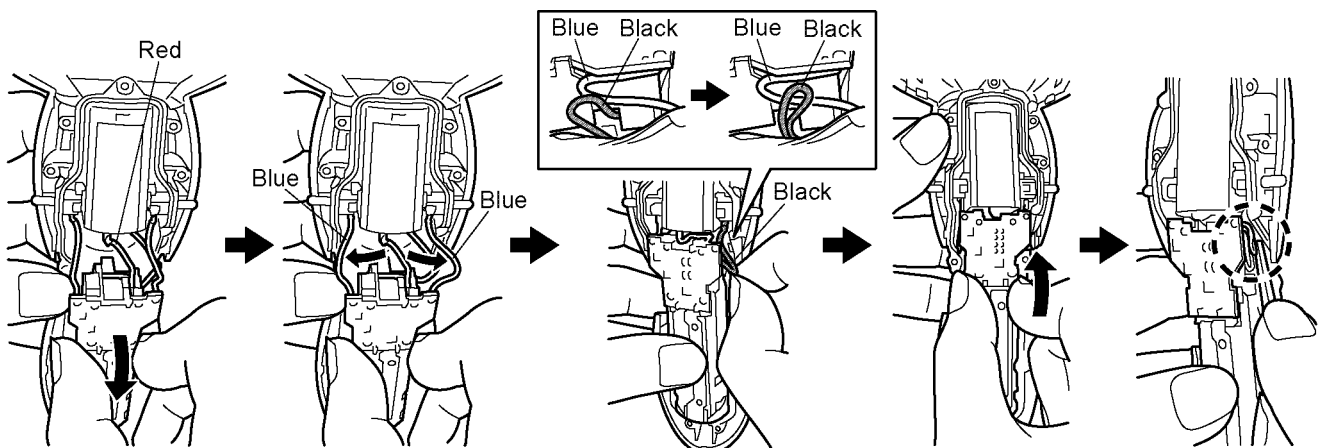
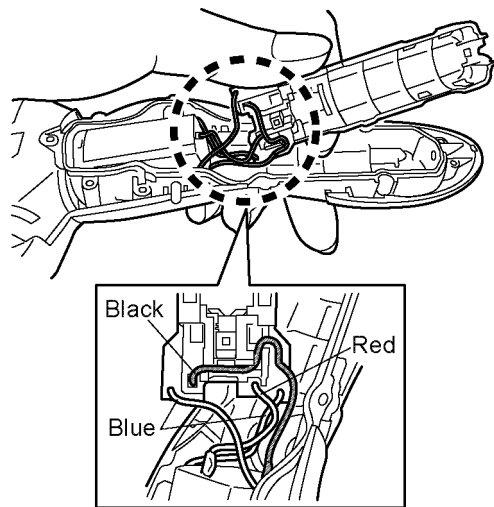
Confirm the correct wiring.

1. Place RED lead wire.
2. Move BLUE lead wires aside.
3. Place BLACK lead wire in right position.

Place module chassis assembly in the housing.

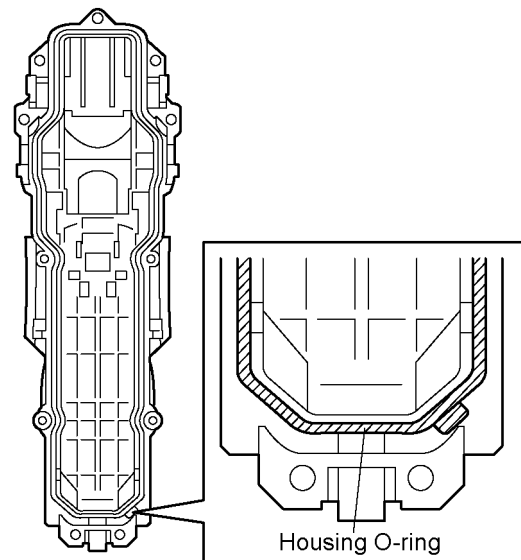
### NOTE:

Press fit the lead wire neatly to avoid any pinching especially for the both side.



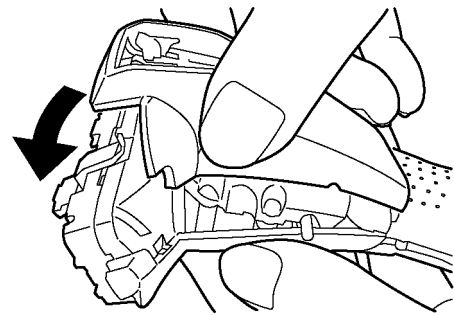
## 5.8. Housing O-ring

Place fit the housing O-ring.



## 5.9. Trimmer assembly

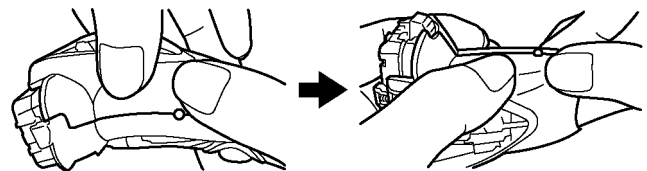
1. Assemble the trimmer assembly from the upper side.



2. Close the trimmer assembly from the left side first.  
And confirm the right side of trimmer assembly completely.

**NOTE:**

If failure to do, the hooks may be broken.

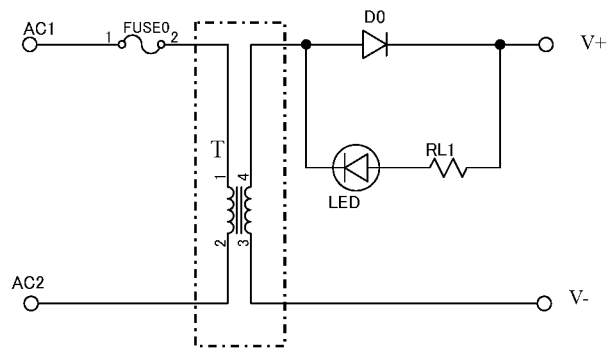


( Left and right side one by one )

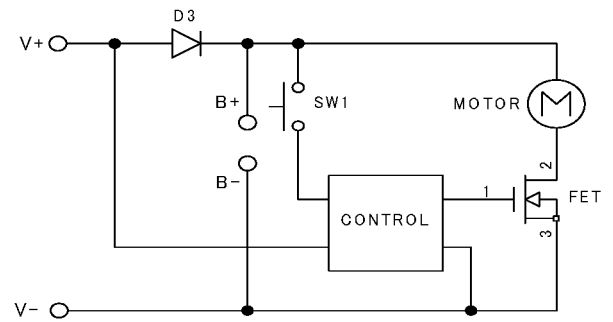
## 5.10. Screw

Tighten screws with  $1.47\pm 4.9\text{N}\cdot\text{cm}$  to prevent the breakage of housing or making a crevice in the housing.

## 6 Schematic Diagram



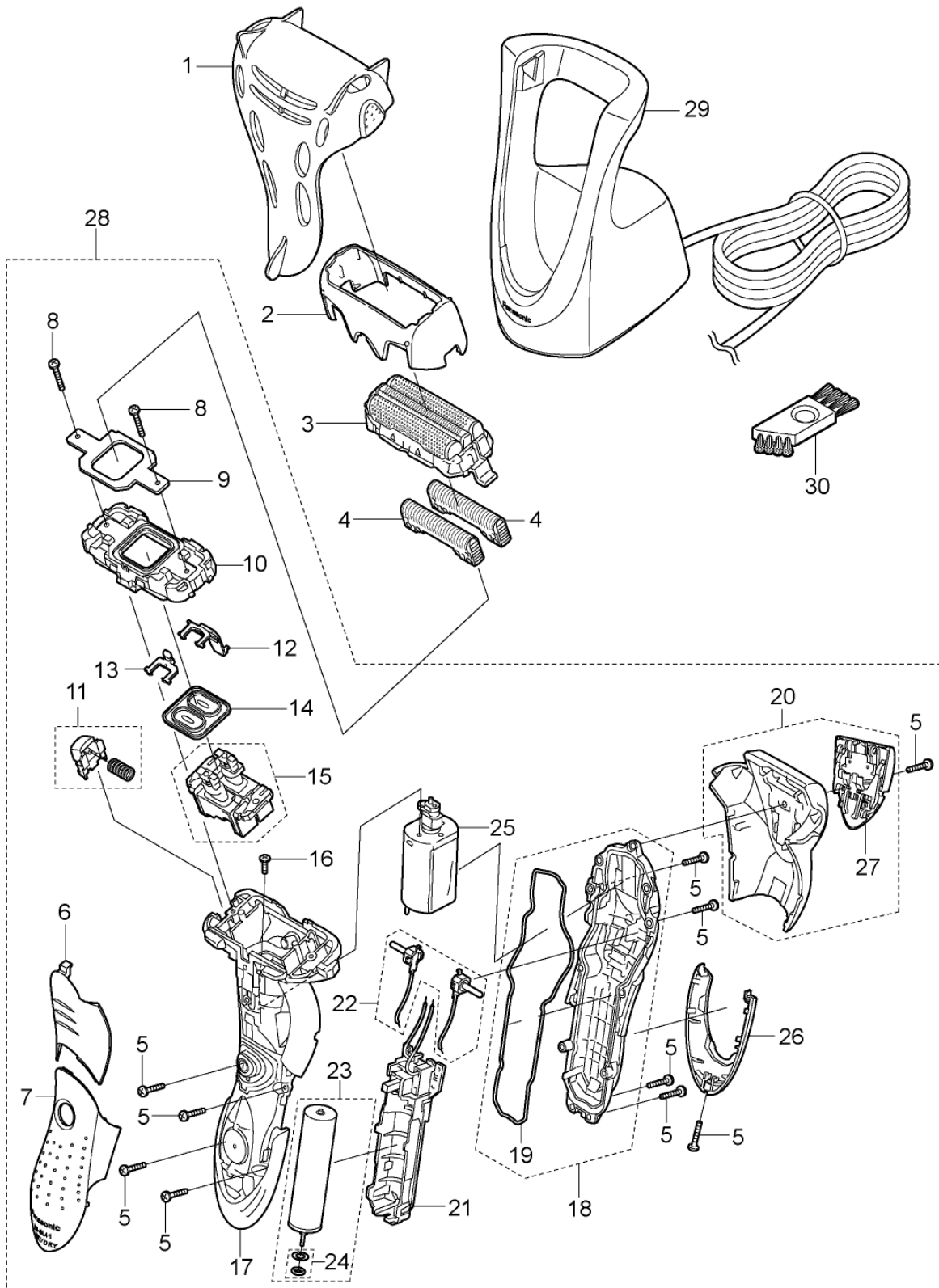
**Adaptor**



**Main unit**

# 7 Exploded View and Replacement Parts List

Model No. : ES-SL41 Exploded View



## Model No. : ES-SL41 Parts List

Safety	Ref. No.	Part No.	Part Name & Description	Q'ty	Remarks
	1	WESSL41X7158	PROTECTIVE CAP	1	
	2	WESSL41R0048	OUTER FOIL FRAME	1	for RED MODEL
	2	WESSL41S0048	OUTER FOIL FRAME	1	for SILVER MODEL
	2	WESSL41A0048	OUTER FOIL FRAME	1	for BLUE MODEL
	3	WES9087E	OUTER FOIL	1	
	4	WES9068E	INNER BLADE	1ST	
	5	WES8176L6056	TAPPING SCREW	9	K2-8
	6	WESSL41R3788	CLEANING SHUTTER COVER	1	for RED MODEL
	6	WESSL41S3788	CLEANING SHUTTER COVER	1	for SILVER MODEL
	6	WESSL41K3788	CLEANING SHUTTER COVER	1	for BLUE MODEL
	7	WESSL41K3778	FRONT PANEL	1	for RED and BLUE MODEL
	7	WESSL41A3778	FRONT PANEL	1	for SILVER MODEL
	8	WES7046L6006	P TIGHT SCREW	2	K2-12
	9	WESSL41L0208	RETAINING PLATE	1	
	10	WESSL41K0008	BLADE HOLDER	1	
	11	WESSL41K3268	FOIL RELEASE BUTTON	1	
	12	WESSL41L1088	TRIMMER DRIVING BAR	1	
	13	WES8176L1077	SLIT BLADE DRIVING BAR	1	
	14	WES8196L0328	WATERPROOF RUBBER	1	
	15	WESSL41L1248	DRIVING HEADS	1	
	16	WESSL41L6058	SCREW	1	M2-4
	17	WESSL41R3058	HOUSING A	1	for RED MODEL
	17	WESSL41S3058	HOUSING A	1	for SILVER MODEL
	17	WESSL41A3058	HOUSING A	1	for BLUE MODEL
	18	WESSL41R3063	HOUSING B	1	for RED MODEL
	18	WESSL41R3061	HOUSING B	1	for RED MODEL and TAIWAN
	18	WESSL41S3063	HOUSING B	1	for SILVER MODEL
	18	WESSL41S3062	HOUSING B	1	for SILVER MODEL and KOREA
	18	WESSL41A3062	HOUSING B	1	for BLUE MODEL and TAIWAN
	19	WESSL41L0588	HOUSING O-RING	1	
	20	WESSL41K1508	TRIMMER ASSEMBLY	1	for RED MODEL
	20	WESSL41S1508	TRIMMER ASSEMBLY	1	for SILVER MODEL
	20	WESSL41A1508	TRIMMER ASSEMBLY	1	for BLUE MODEL
	21	WESSL41L2108	MODULE CHASSIS ASSEMBLY	1	
	22	WESSL41L2158	SIDE TERMINAL	1ST	
	23	WESSL41L2508	RECHARGEABLE BATTERY	1	Ni-MH type
	24	WESRW30L0977	WASHER & O-RING SET	1ST	
	25	WESSL41L1008	MOTOR BLOCK	1	
	26	WESSL41R3128	BOTTOM COVER	1	for RED MODEL
	26	WESSL41S3128	BOTTOM COVER	1	for SILVER MODEL
	26	WESSL41A3128	BOTTOM COVER	1	for BLUE MODEL
	27	WESSL41S1568	TRIMMER	1	for SILVER MODEL
	27	WESSL41K1568	TRIMMER	1	for RED and BLUE MODEL

## Model No. : ES-SL41 Parts List

Safety	Ref. No.	Part No.	Part Name & Description	Q'ty	Remarks
	28	WESSL41R3033	BODY BLOCK	1	for RED MODEL
	28	WESSL41R3031	BODY BLOCK	1	for RED MODEL and TAIWAN
	28	WESSL41S3033	BODY BLOCK	1	for SILVER MODEL
	28	WESSL41S3032	BODY BLOCK	1	for SILVER MODEL and KOREA
	28	WESSL41A3032	BODY BLOCK	1	for BLUE MODEL and TAIWAN
	29	WESSL41K7662	AC ADAPTOR	1	A-2 PLUG
	29	WESSL41K7671	AC ADAPTOR	1	KS PLUG
	29	WESSL41K7674	AC ADAPTOR	1	C-2 PLUG
	29	WESSL41K7673	AC ADAPTOR	1	C-2 PLUG and MIDDLE EAST
	29	WESSL41K7675	AC ADAPTOR	1	BF3 PLUG and SAUDI ARABIA
	30	WES8093H7056	CLEANING BRUSH	1	
	-	WESSL41R8003	INDIVIDUAL BOX	1	for RED MODEL
	-	WESSL41R8001	INDIVIDUAL BOX	1	for RED MODEL and TAIWAN
	-	WESSL41R8004	INDIVIDUAL BOX	1	for RED MODEL and MIDDLE EAST
	-	WESSL41R8005	INDIVIDUAL BOX	1	for RED MODEL and SAUDI ARABIA
	-	WESSL41S8004	INDIVIDUAL BOX	1	for SILVER MODEL
	-	WESSL41S8003	INDIVIDUAL BOX	1	for SILVER MODEL and KOREA
	-	WESSL41S8005	INDIVIDUAL BOX	1	for SILVER MODEL and MIDDLE EAST
	-	WESSL41S8006	INDIVIDUAL BOX	1	for SILVER MODEL and SAUDI ARABIA
	-	WESSL41A8003	INDIVIDUAL BOX	1	for BLUE MODEL and TAIWAN
	-	WESSL41S8103	OPERATING INSTRUCTIONS	1	
	-	WESSL41S8101	OPERATING INSTRUCTIONS	1	only for TAIWAN
	-	WESSL41S8104	OPERATING INSTRUCTIONS	1	only for MIDDLE EAST and SAUDI ARABIA