

Service Manual

AC/Rechargeable Shaver

Model No. **ES8119**

Hong Kong



⚠ 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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Panasonic

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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

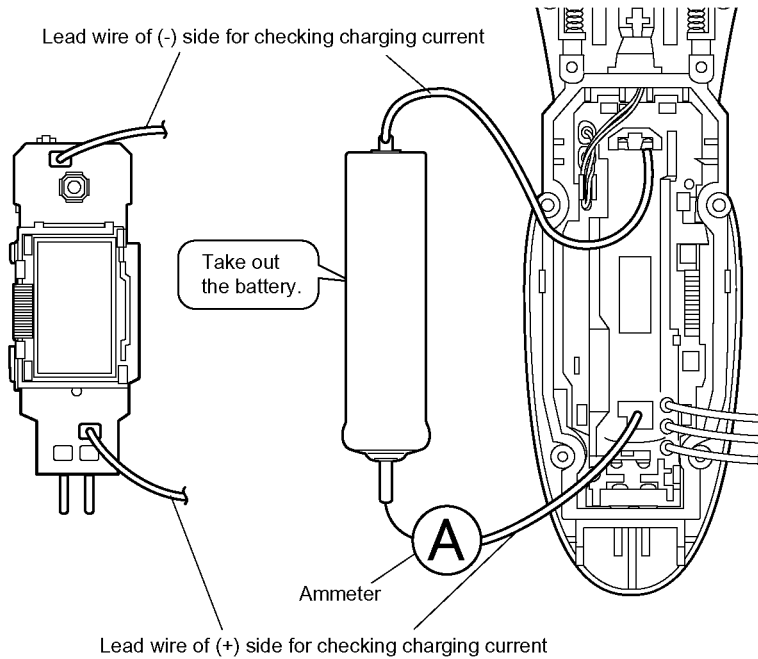
Power source	AC 100-240V, 50-60Hz (Automatic voltage conversion)
Power consumption	Approx. 6W
Charging time	1 Hour
Shaves per charge	14 times (3 minutes shave)
Measurement	(H)15.7 x (W)6.4 x (D)4.3 cm
Weight	175g (without protective cap)

Supplied accessories	Self-cleaning recharger
	Soft case
	Oil
	Cleaning brush

3 Troubleshooting Guide

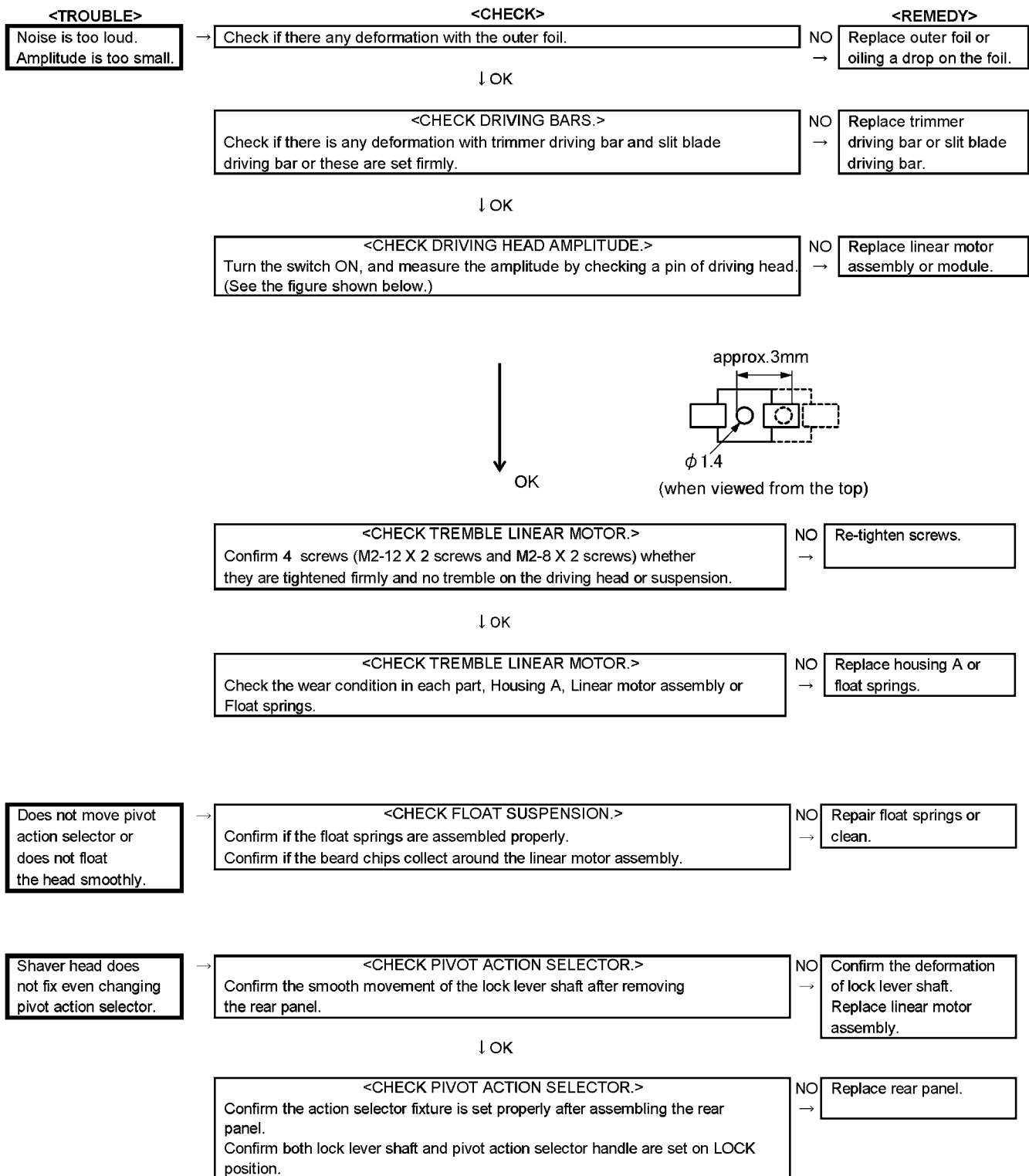
3.1. Main unit and charging adaptor

<TROUBLE>	<CHECK>	<REMEDY>
Motor does not rotate. Does not charge. Functions for a moment and stops.	<p data-bbox="676 304 995 327"><CHECK CHARGING ADAPTOR.></p> <p data-bbox="480 333 1126 416">Supply the rated voltage to the adaptor. And confirm the continuity. OK if it is approx. DC6V between the terminals of the plug at the no-load operation.</p>	<p data-bbox="1209 304 1246 327">NO</p> <p data-bbox="1209 333 1246 356">→</p> <p data-bbox="1262 304 1422 360">Replace charging adaptor.</p>
↓ OK		
	<p data-bbox="647 499 1027 521"><CHECK RECHARGEABLE BATTERY.></p> <p data-bbox="480 528 1102 589">Okay if the voltage of rechargeable battery is more than approximately 3.6V DC between (+) and (-) terminal.</p>	<p data-bbox="1209 499 1246 521">NO</p> <p data-bbox="1209 528 1246 551">→</p> <p data-bbox="1262 499 1461 555">Replace rechargeable battery.</p>
↓ OK		
	<p data-bbox="740 667 935 689"><CHECK MODULE.></p> <p data-bbox="480 696 1142 853">Wire the main unit returned from a customer refer with the following figure, and connect the rated voltage to it by the normal adaptor. When switching ON and OFF, check if motor rotates and the indicator of LCD is lid. Discharge the battery completely and check charging current, if it is more than 600mA when connecting AC power source.</p>	<p data-bbox="1209 667 1246 689">NO</p> <p data-bbox="1209 696 1246 719">→</p> <p data-bbox="1262 667 1445 723">Check the soldering points.</p> <p data-bbox="1358 730 1406 752" style="text-align: center;">↓ OK</p> <p data-bbox="1262 745 1414 768">Replace module.</p> <p data-bbox="1358 775 1406 797" style="text-align: center;">↓ OK</p> <p data-bbox="1262 790 1445 846">Replace linear motor assembly.</p>

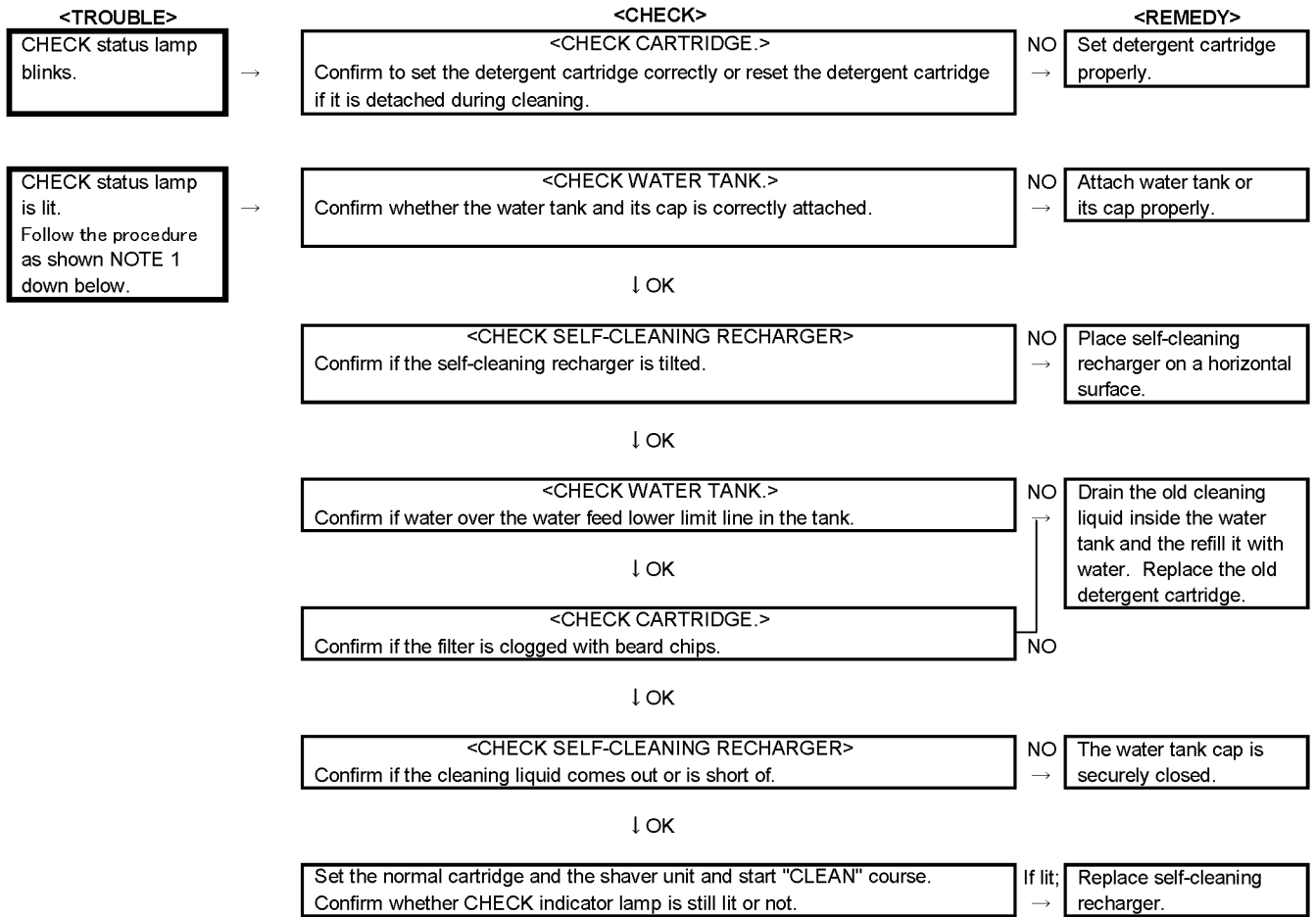


NOTE: Once taking the battery out, the shaver is RESET. The shaver must be charged for several seconds first.

NOTE: Completely discharge and then fully charge before returning the shaver to the customer.



3.2. Self-cleaning recharger



NOTE 1: Hold down the SELECT button for approximately two seconds to extinguish the CHECK indicator lamp.

The course will be aborted if the power is cut off during cleaning.

(Phenomenon)

The cleaning liquid remains the tray even the course is completed normally.

(Action)

Try to re-operate the course once again to exhaust the cleaning liquid on the cartridge tray.

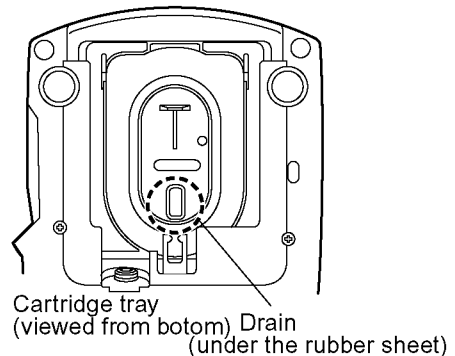
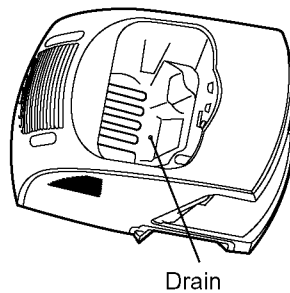
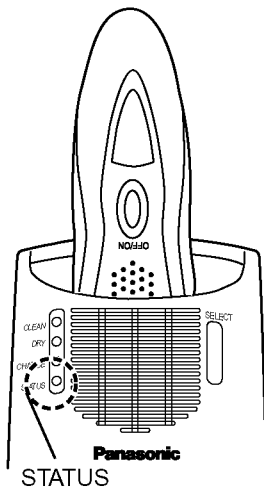
Too much cleaning liquid remains the tray.

(Phenomenon)

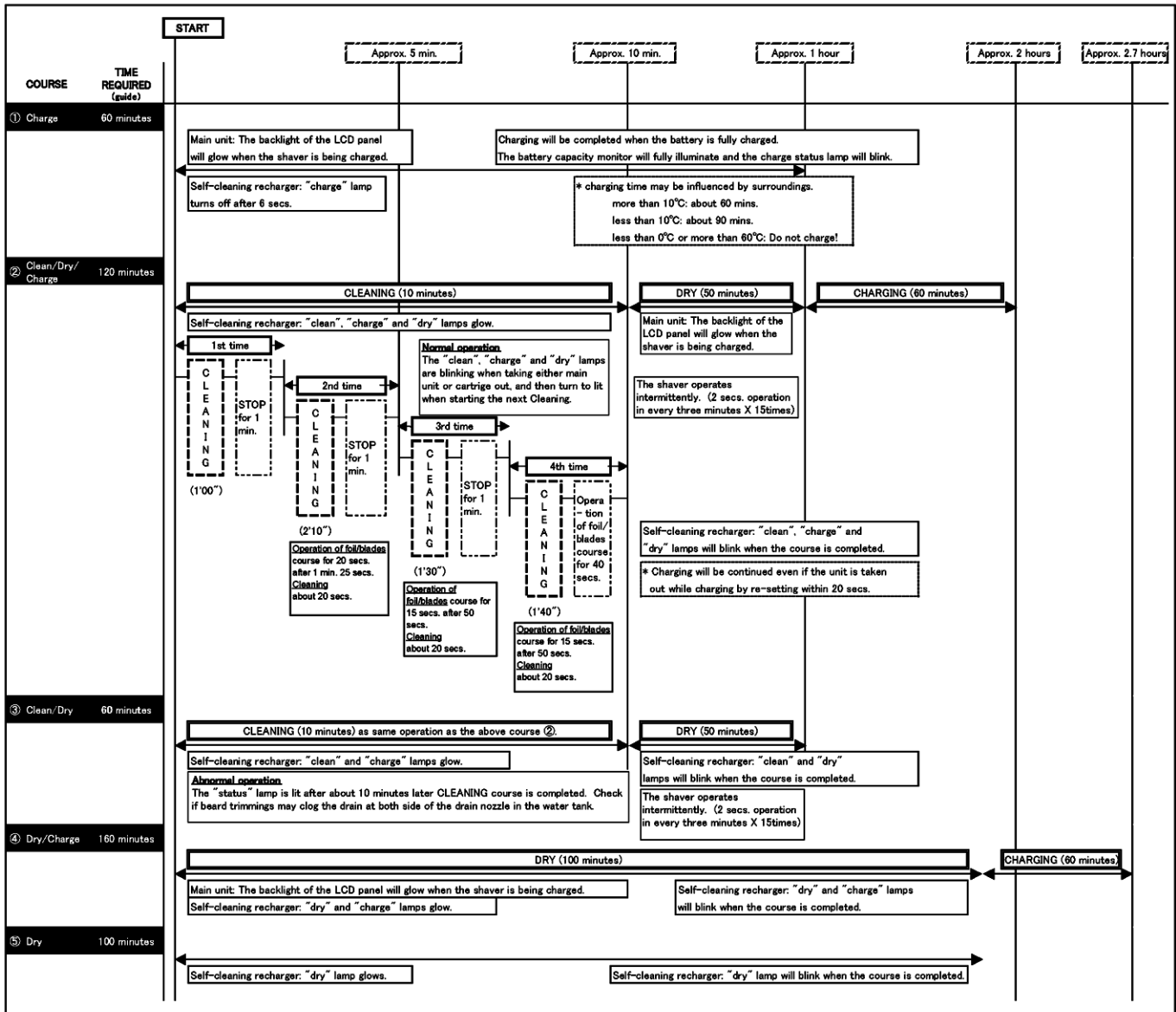
The cleaning liquid remains the tray even the course is completed normally.

(Action)

Clean the drain holes as pointed with the circle down below.



3.3. Operation of Self-cleaning Recharger



Course	Course selection indications				Changeable course halfway through	Course completion summary				Time required (guide) [In the low temperature]
	On recharger			On shaver Backlight		On recharger			On shaver Backlight	
	clean	dry	charge			clean	dry	charge		
① Charge	○	○	●*	②③④⑤	▶	○	○	○	Blinks	1 hour
② Clean/Dry/Charge	●	●	○	③	▶	☀	☀	○	Blinks	2 hours [+30 min]
③ Clean/Dry	●	●	○	②	▶	☀	☀	○	—	1 hour [+30min]
④ Dry/Charge	○	●	●	②③⑤	▶	○	☀	○	Blinks	2 h 40 min
⑤ Dry	○	●	○	②③④	▶	○	☀	○	—	1 h 40 min

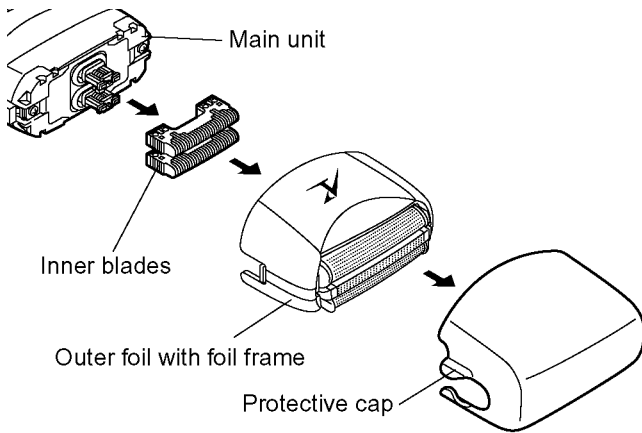
*The lamp goes out in 6 seconds.

4 Disassembly and Assembly Instructions

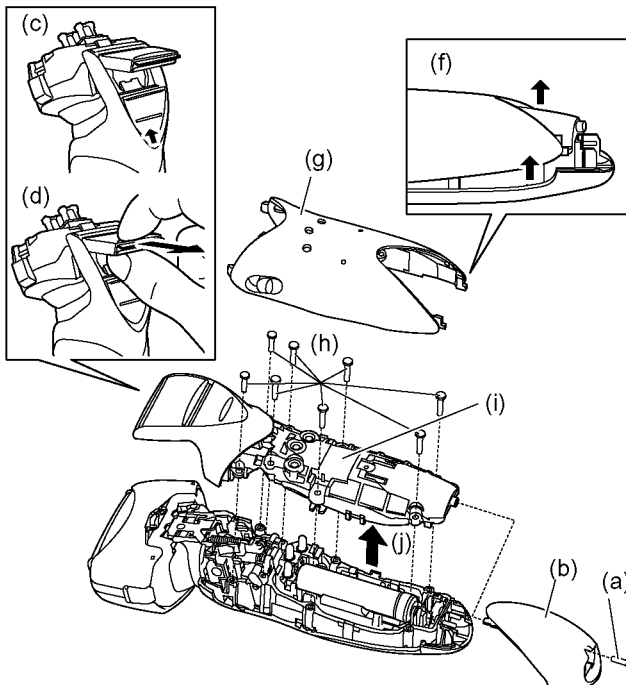
4.1. Disassembly Instructions

Follow the procedure below to disassemble the main unit.

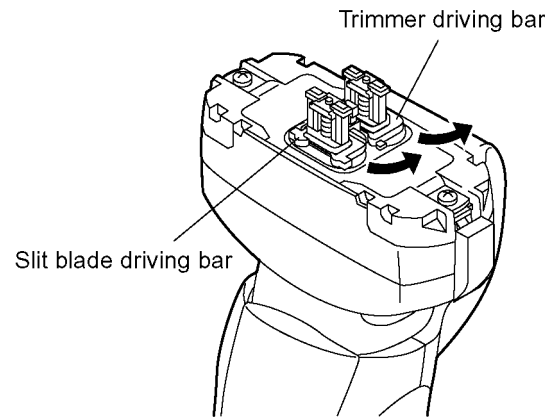
1. Remove the cap, the outer foil and the inner blade.



2. How to disassemble the housing A and B.
 - a. Loosen a screw.
 - b. Remove the bottom cover.
 - c. Slide the trimmer handle up.
 - d. Pull out the trimmer vertically.
 - e. Unhook the bottom of trimmer handle and pull out.
 - f. Lift up the bottom of rear panel on both side.
 - g. Remove the rear panel.
 - h. Loosen eight screws.
 - i. Remove the connecting plate.
 - j. Remove the housing B.



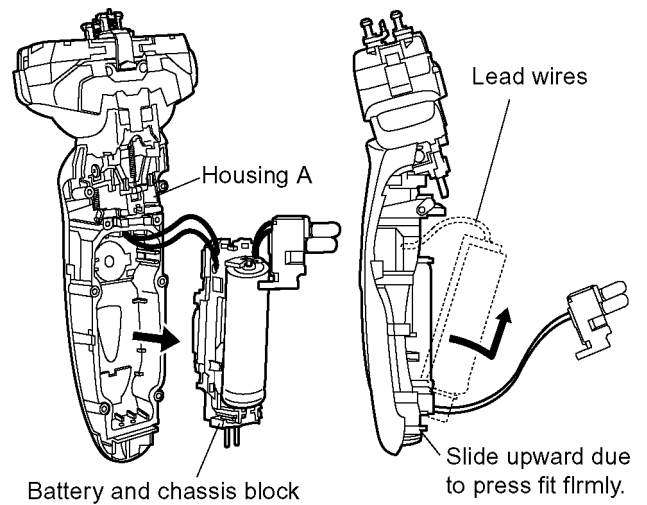
3. To remove the trimmer driving bar or the slit blade driving bar, press bars outward.



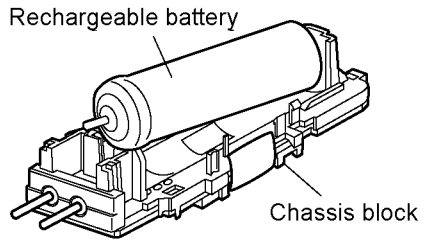
4. Pull up the battery and chassis block from the linear motor side first. Then, slide it upward and take it out from the housing A.

NOTE:

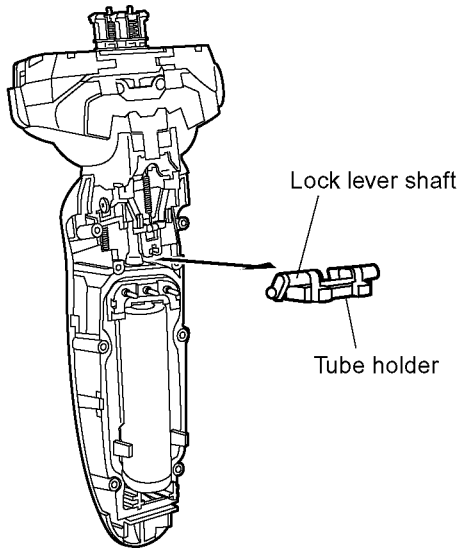
Do not pull the battery and chassis block forcefully due to connecting the linear motor by the lead wires.



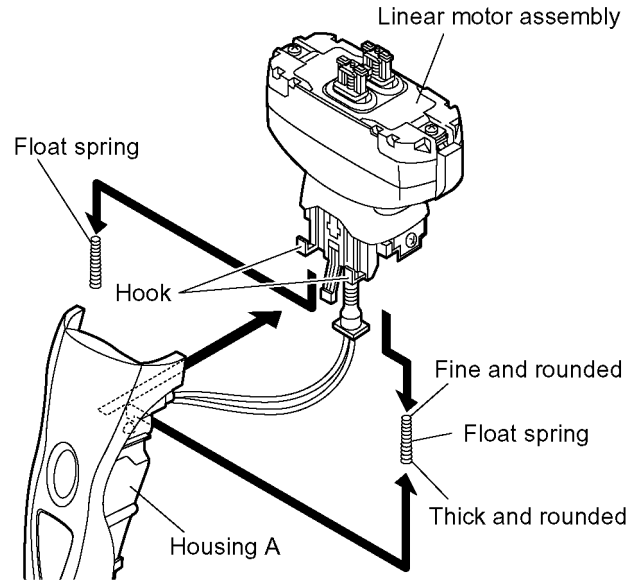
5. Take out the battery from the chassis.



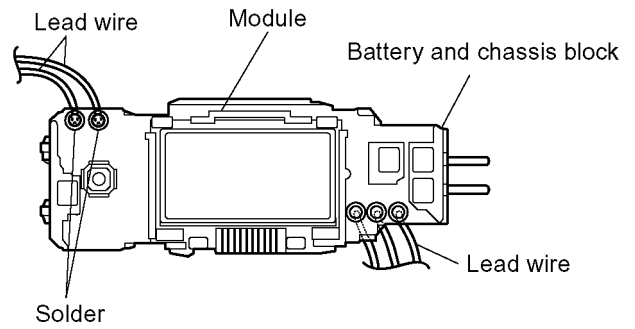
6. Take out the tube holder.



7. Move gently the linear motor assembly down and unhook it and remove the float springs from housing A.



8. Unsolder the lead wires from the module.



4.2. Caution in Assembly

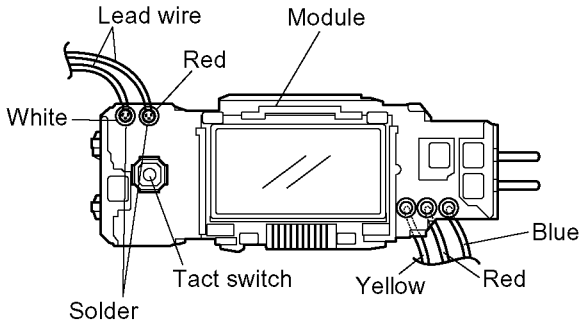
NOTE:

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

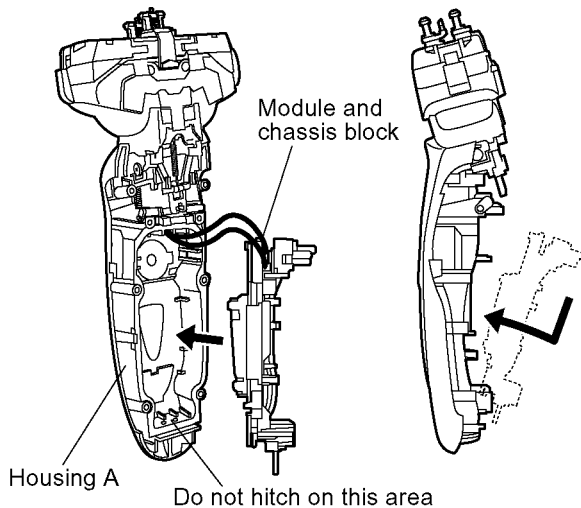
1. Solder the lead wires with the module.

NOTE:

Make sure of the color of lead wires.



2. When inserting the module and chassis block into the housing A, confirm if the module does not get any damage or deformation.



3. Make sure that the lead wires set in position to avoid abnormal noise. Install (+) terminal of battery into the terminal plate at the bottom cover side and firmly set the battery sliding the direction of arrow. Attach (-) terminal of battery.

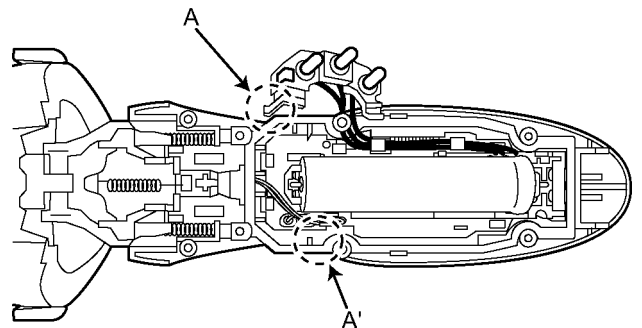
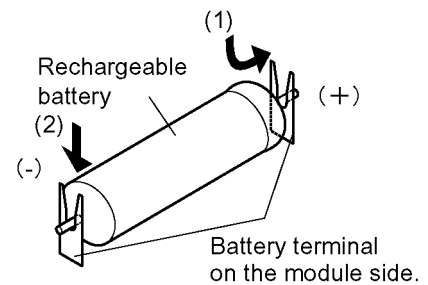
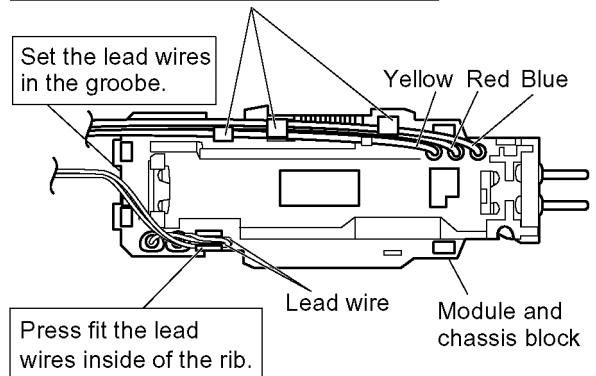
NOTE:

Once taking the battery out, the shaver is RESET. The shaver must be charged for several seconds first.

NOTE:

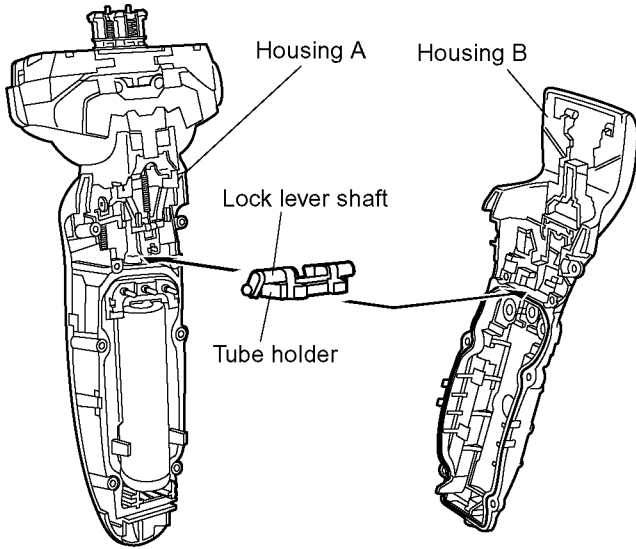
Completely discharge and then fully charge before returning the shaver to the customer.

Press fit the yellow, red and blue lead wires in order and confirm to hook them at three hooks.

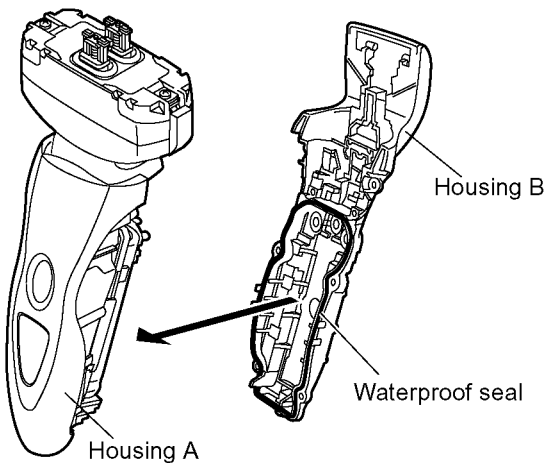


NOTE: The projection A should be set into the place A'

4. Set the linear motor assembly on the housing A and sliding it upward to hook. Confirm that the lead wire tube fits to the housing A firmly and no foreign substance sticking around. Attach the tube holder with the lock lever shaft to housing A with care of the direction.



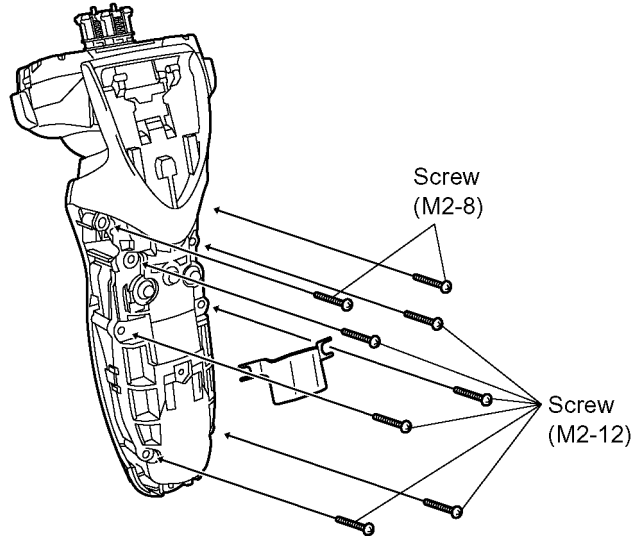
5. When putting the housing A and the housing B together, make sure if the waterproof seal must be fitted properly and no foreign substance sticking around.



6. Tighten eight screws.

NOTE:

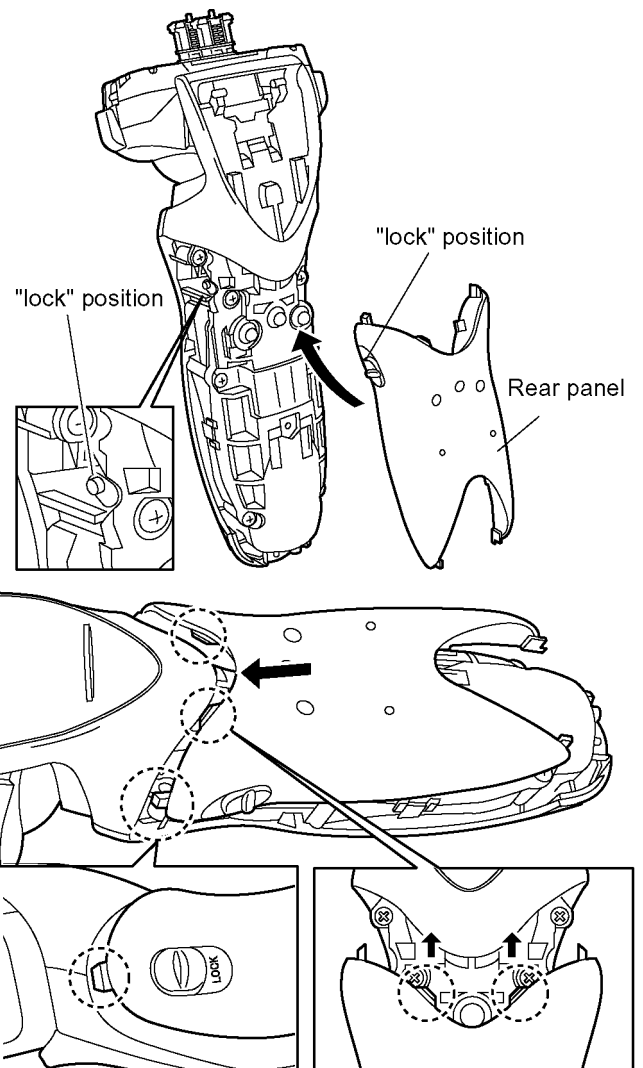
Make sure to attach the connecting plate.



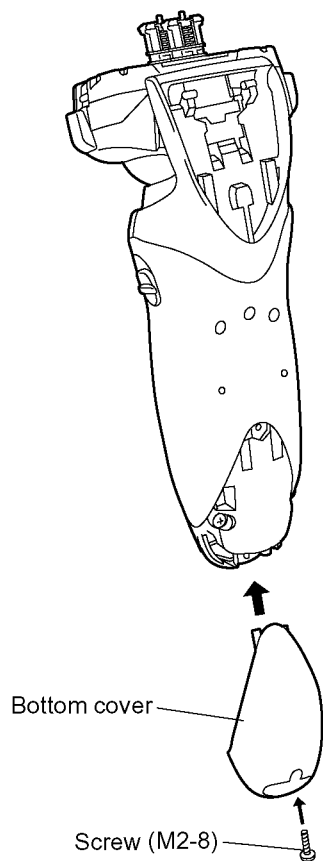
7. Insert two hooks on top of the rear panel into the dent of housing first and attach the rear panel firmly. Set the rear panel with the position "LOCK".

NOTE:

Make sure of the smooth movement of the lock lever shaft.

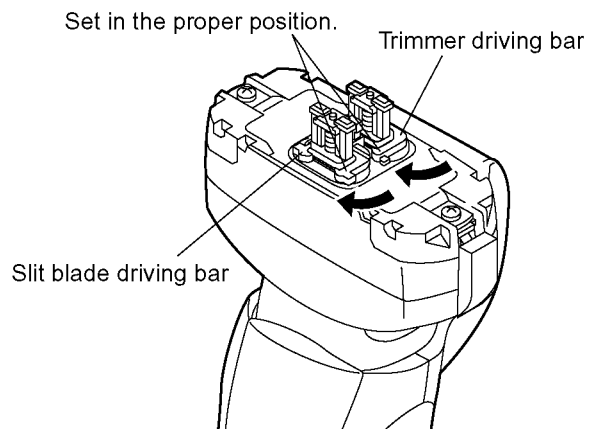


8. Attach the bottom cover and tighten a screw.

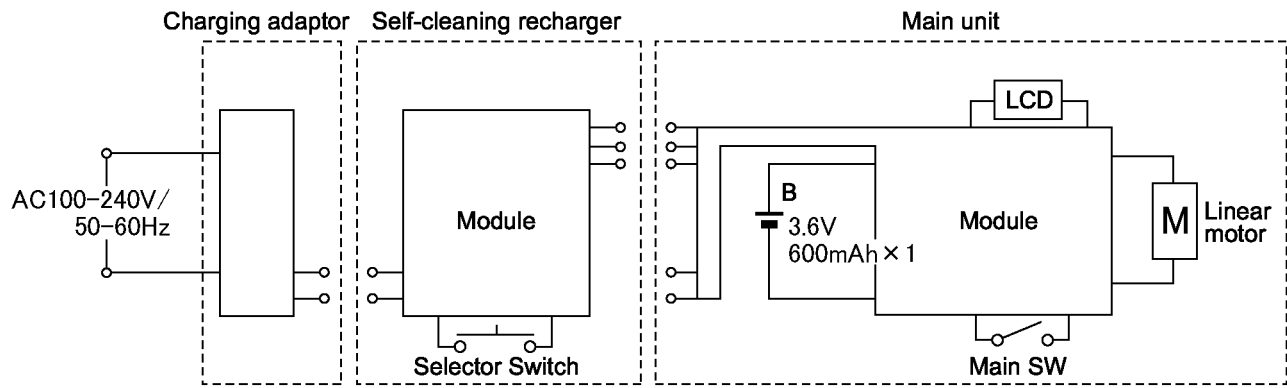


10. Set the trimmer where removing it and click the hook. If the position is not properly, it makes the deformation of the hook.

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

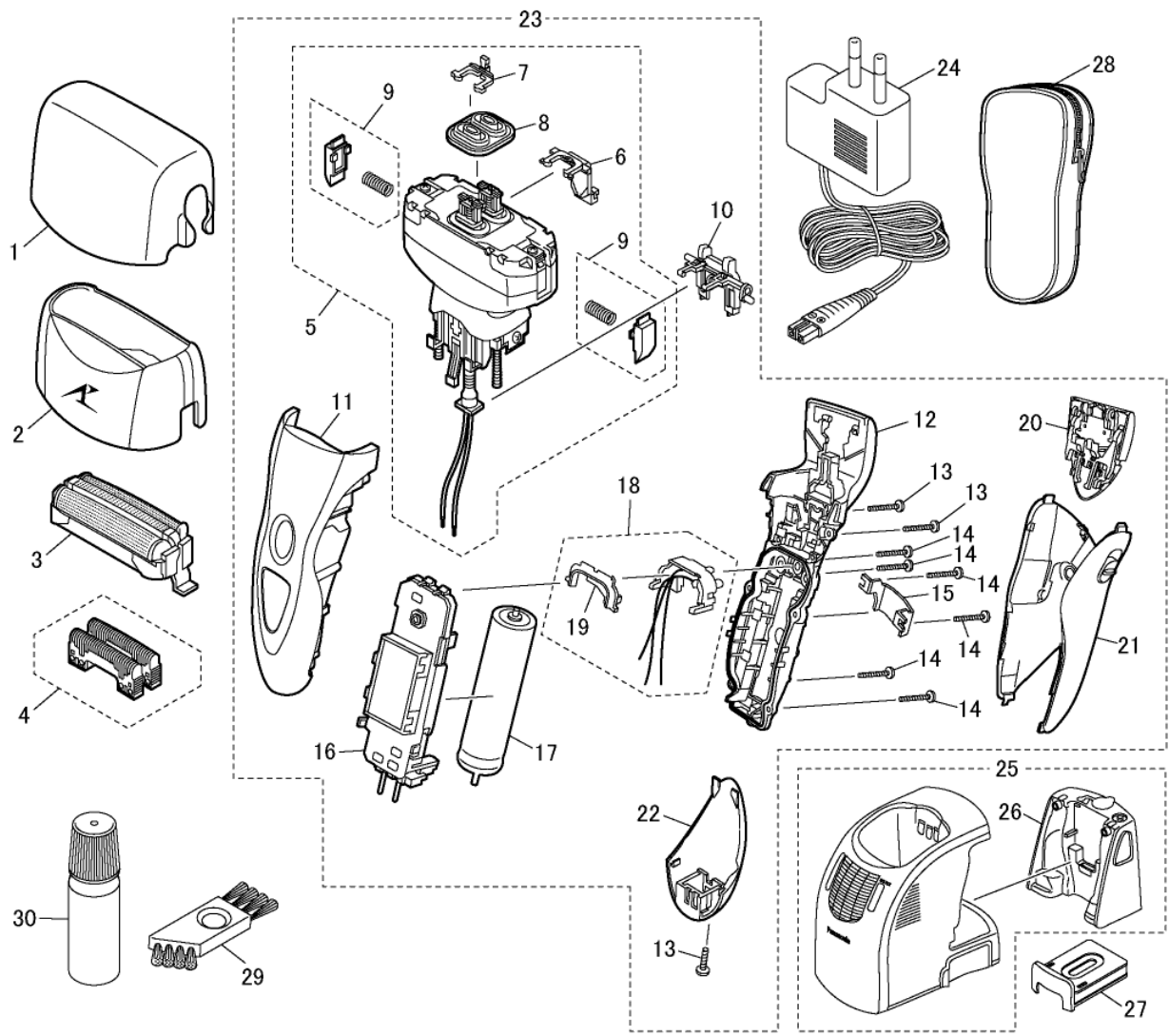


5 Schematic Diagram



6 Exploded View and Replacement Parts List

Model No. : ES8119 Exploded View



Model No. : ES8119 Parts List

Safety	Ref. No.	Part No.	Part Name & Description	Q'ty	Remarks
	1	WES8116K7158	PROTECTIVE CAP	1	
	2	WES8119S0047	OUTER FOIL FRAME	1	
	3	WES9087E	OUTER FOIL	1	
	4	WES9068E	INNER BLADE	1ST	
	5	WES8119L1007	LINEAR MOTOR ASSEMBLY	1	
	6	WES8119L1087	TRIMMER DRIVING BAR	1	
	7	WES8176L1077	SLIT BLADE DRIVING BAR	1	
	8	WES8196L0328	WATERPROOF RUBBER	1	
	9	WES8119K3267	FOIL RELEASE BUTTON	2	(2PCS/PK)
	10	WES8258L0537	TUBE HOLDER	1	
	11	WES8119S3058	HOUSING A	1	
	12	WES8119S3068	HOUSING B	1	
	13	WES8176L6057	TAPPING SCREW	1	(M2-8)
	14	WES8176L6007	P TIGHT SCREW	1	(M2-12)
	15	WES8238L0487	CONNECTING PLATE	1	
	16	WES8119N2127	MODULE	1	
	17	WES8176L2509	RECHARGEABLE BATTERY	1	(LM-ION TYPE)
	18	WES8119L0497	TERMINAL BASE	1	
	19	WES8238H0527	TERMINAL COVER	1	
	20	WES8119A1508	TRIMMER	1	
	21	EWS8111A3367	REAR PANEL	1	
	22	WES8119S3128	BOTTOM COVER	1	
	23	WES8119S3038	BODY BLOCK	1	
	24	WES8238K7663	CHARGING ADAPTOR	1	(C-2PLUG)
	25	WES8109K4218	SELF-CLEANING RECHARGER	1	
	26	WES8109K7358	WATER TANK	1	
	27	WES035K7778	DETERGENT CARTRIDGE	3	(3PCS/BOX)
	28	WES8176K7016	SOFT CASE	1	
	29	WES8093H7057	CLEANING BRUSH	1	
	30	WES8196X7918	OIL	1	
	-	WES8119S8008	INDIVIDUAL BOX	1	
	-	WES8119S8108	OPERATING INSTRUCTIONS	1	