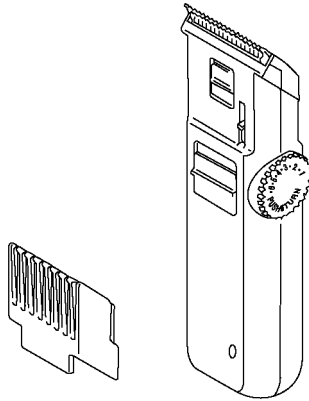


# Service Manual

AC/Rechargeable Beard/Hair Trimmer

Model No. **ER2031**  
**ER2051**

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	AC 100-240V, 50-60Hz	
Power consumption	Approx. 5.0W	
Motor voltage	1.2V DC	
Rated time	Approx. 40 minutes	
Charging time	ER2031	8 Hours
	ER2051	1 Hour
Weight	ER2031	156g (including attachment)
	ER2051	155g (including attachment)

Supplied accessories	Comb attachment
	Soft case
	Cleaning brush
	Oil

# 3 Troubleshooting Guide

<TROUBLE>	→	<CHECK>	NO →	<REMEDY>
Does not operate with AC source.		<b>&lt;CHECK CORD.&gt;</b> Check if there is a continuity between the plug blades and the contacts of connectors (terminal plug in holes).		Replace power cord.
		↓ OK		
		<b>&lt;CHECK PROTECTIVE RESISTOR and RECTIFIER.&gt;</b> There should be 100-240V DC between (3) and (4) when supplying the rated voltage. If the voltage does not completely reach this level, unplug the power cord and confirm if the two protective resistors are 68Ω or 150Ω. If the protective resistors are defective, change the module and confirm the motor and the battery are not defective. When the voltage is not correct, but the protective resistors are good, the rectifier may defective.		Replace module.
		↓ OK		
		<b>&lt;CHECK PLUG CHASSIS.&gt;</b> Check the condition of plug chassis.		Replace module.
		↓ OK		
		<b>&lt;CHECK RECHARGEABLE BATTERY.&gt;</b> Okay if the voltage of rechargeable battery is more than approximately 1.2V DC between (+) and (-) terminals. If the voltage is more than 1.2V DC but the trimmer can be used only a few minutes, battery may be defective.		Replace rechargeable battery.
		↓ OK		
		<b>&lt;CHECK SWITCH.&gt;</b> Confirm the condition between the contact spring on Housing B and module.		Adjust and clean contact point if necessary.
		↓ OK		
		<b>&lt;CHECK MOTOR.&gt;</b> The motor should turn when 1.2V DC is applied to terminals.		Replace motor.
		↓ OK		
		<b>&lt;CHECK CHARGING CURRENT.&gt;</b> Supply the rated voltage and confirm if LED should be lit. Measure the charging current across (2) and (5); [ER2031]                      [ER2051] 85-205mA at 100V AC.        600-800mA. 95-215mA at 120V AC. 130-220mA at 220V AC. 130-230mA at 240V AC.		Recharge. → If the battery voltage is less than 1.1V DC even after full charging or the usable time is less than 2 or 3 times (5-10 min.), replace battery.
		↓ OK		
		<b>&lt;CHECK MODULE.&gt;</b> It is OI if the motor rotates and LED is lit when the switch is ON.		Replace module.

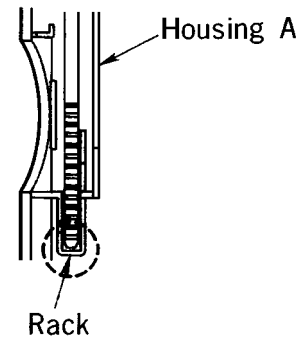
## 4 Disassembly and Assembly Instructions

### 4.1. Disassembly Instructions

1. Remove the attachment and the blade.
2. Loosen two screws tightening the blade springs and one housing screw.
3. Separate the housing A and B with care of four hooks on the housing A side.
4. Take out the motor.
5. Remove the rechargeable battery from the module.

### 4.2. Assembly Instructions

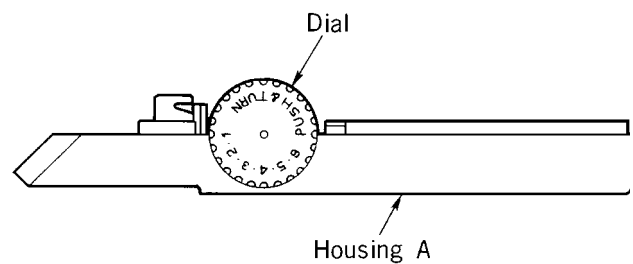
1. Place the switch handle, switch plate with springs and the blade release button onto Housing A.
2. Set the rack with the lowest position.



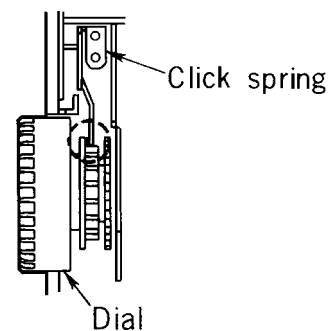
3. Push the click spring into Housing A.

**NOTE: If the click spring is not pressed completely, it causes the chink between Housing A and B.**

4. Place the module block and insert the insulating sheet between module and plug chassis.
5. Place the motor.
6. Make sure that the rack is set to the lowest position and set the dial with fitting position "1" into the edge of Housing A.

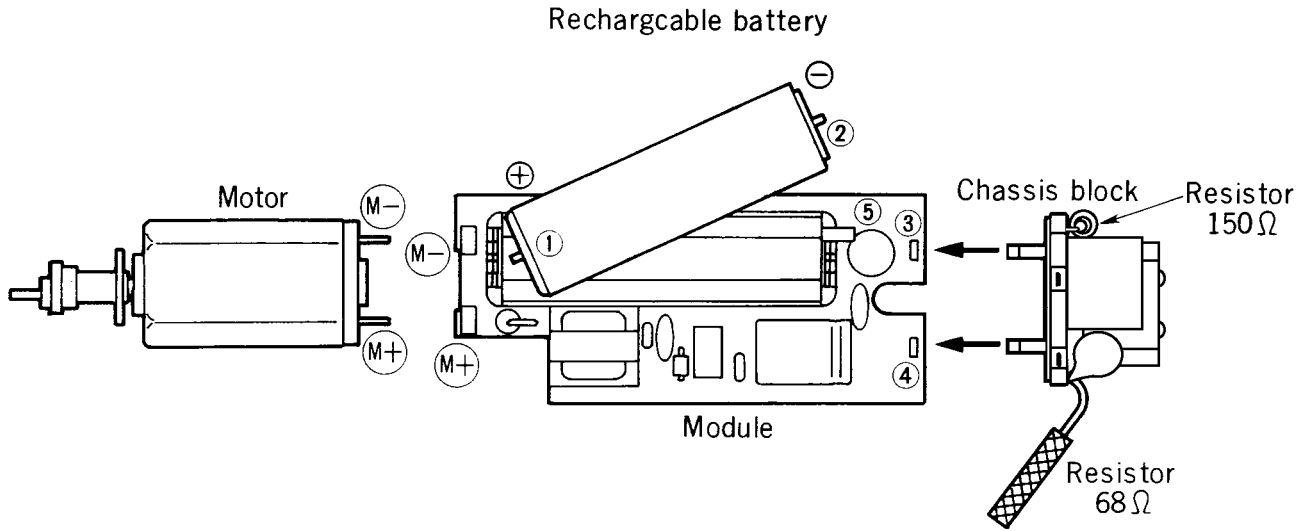


7. Check the position of click spring between the cog of dial.
8. Assemble Housing B onto Housing A.
9. Tighten three screws and attach the blade block.

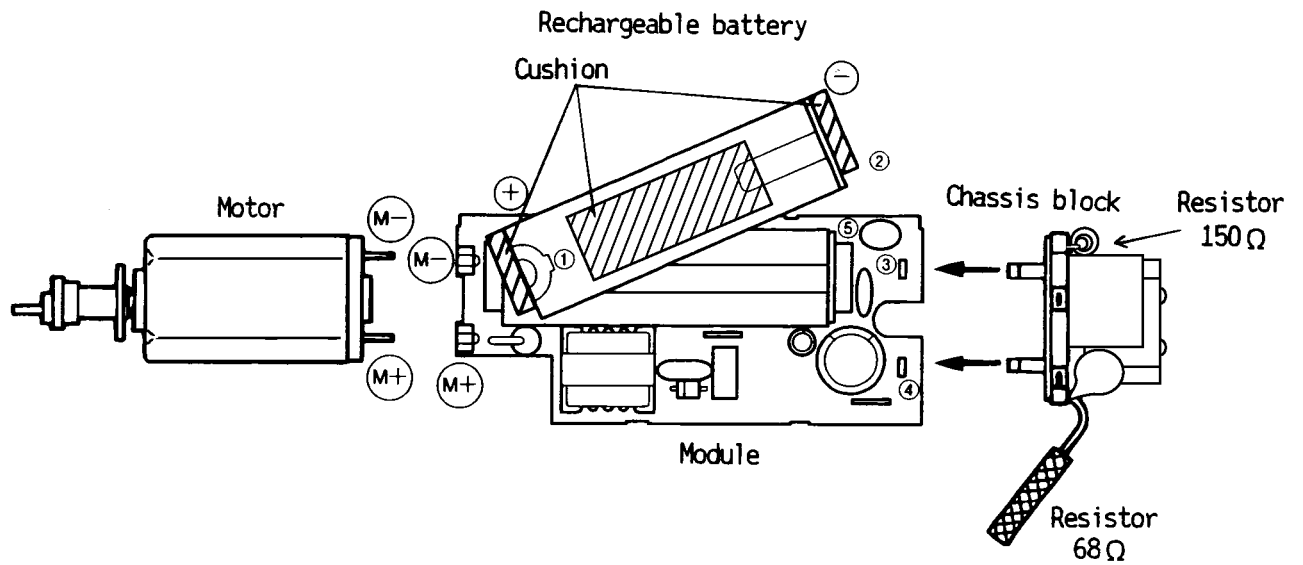


# 5 Wiring Connection Diagram

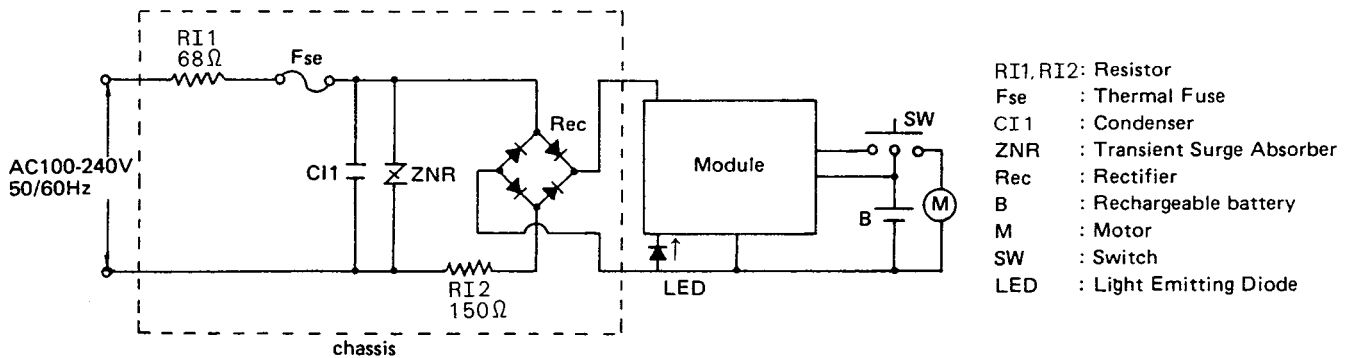
## 5.1. ER2031



## 5.2. ER2051

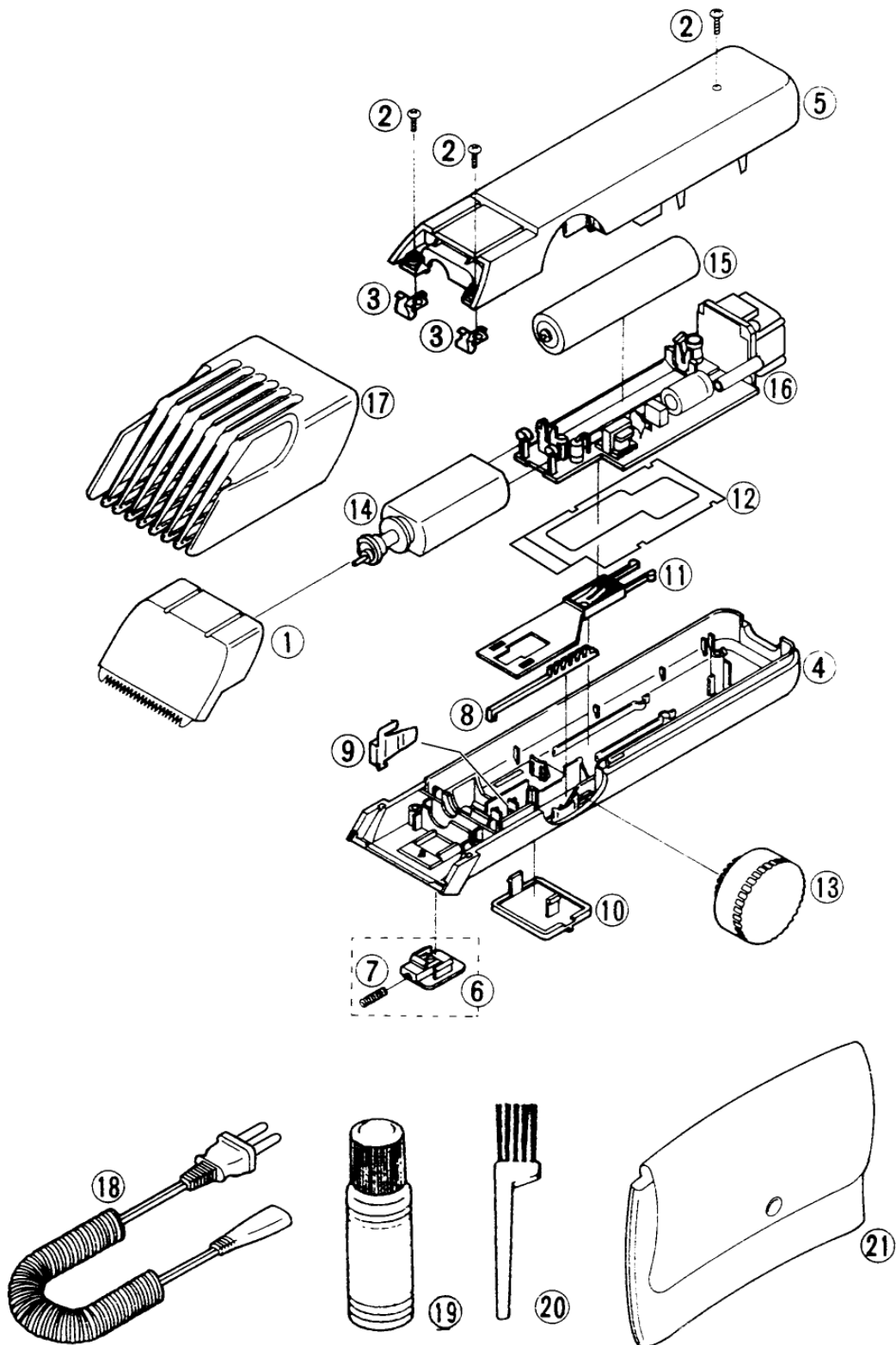


# 6 Schematic Diagram



# 7 Exploded View and Replacement Parts List

Model No. : ER2031 Exploded View for ER2031



**Model No. : ER2031 Parts List**

Safety	Ref. No.	Part No.	Part Name & Description	Q'ty	Remarks
	1	WER964EP	BLADE BLOCK	1	
	2	WER203K6008	P-TIGHT SCREW	3	K2-8
	3	WER300R0167	SPRING FOR CUTTER	1ST	
	4	WER2031K3058	HOUSING A	1	
	5	WER2031K3068	HOUSING B	1	
	6	WER203K3268	LOCK RELEASE BUTTON	1	
	7	WER550V0197	SPRING	1	
	8	WER203K0288	RACK	1	
	9	WER203L1578	CLICK SPRING	1	
	10	WER203K3208	SWITCH HANDLE	1	
	11	WER203L3578	SWITCH TERMINAL PLATE	1	
	12	WER2031L0308	SHEET	1	
	13	WER203K3288	DIAL	1	
	14	WER203L1008	MOTOR	1	
	15	WER2031L2508	RECHARGEABLE BATTERY	1	Ni-Cd TYPE
	16	WER2031L2108	MODULE	1	
	17	WER203K7398	COMB ATTACHMENT	1	
	18	WER200B2069	POWER CORD	1	C-2 PLUG
	19	WER203X7918	OIL	1	
	20	WER210B7077	CLEANING BRUSH	1	
	21	WER203K7008	SOFT CASE	1	
	-	WER2031K8008	INDIVIDUAL BOX	1	
	-	WER2031K8108	OPERATING INSTRUCTIONS	1	