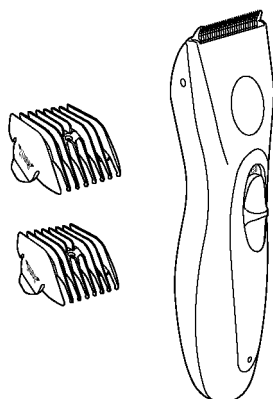


# Service Manual

## AC/Rechargeable Hair Clipper Model No. ER131

Russia



### **⚠ 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 220V, 60Hz
Power consumption	5W
Motor voltage	1.2V DC
Charging time	8 hours
Weight	120g
Supplied accessories	3/6 mm Comb Attachment
	9/12 mm Comb Attachment
	Oil
	Cleaning brush

# 3 Troubleshooting Guide

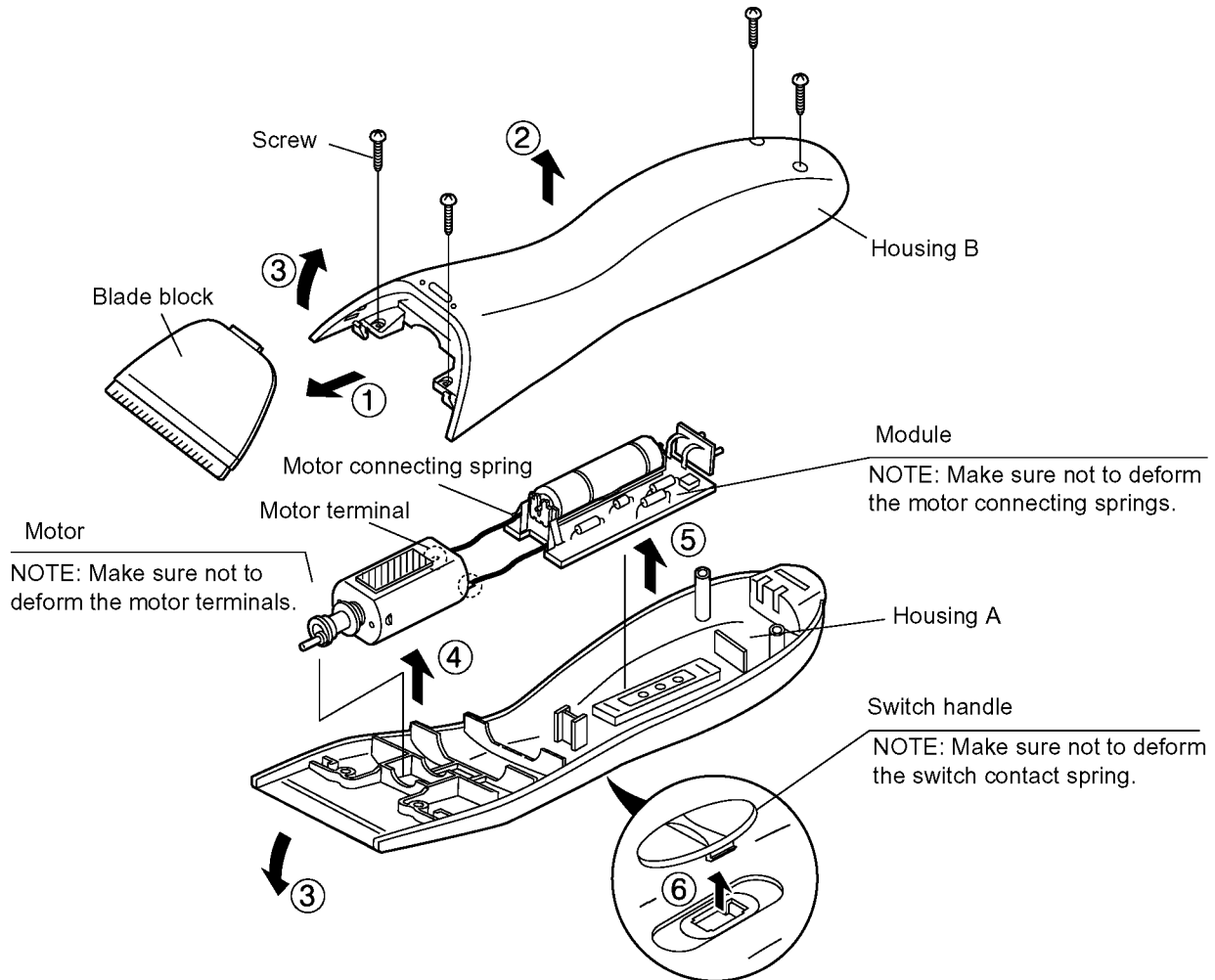
<TROUBLE>	<CHECK.>	<REMEDY>
Does not operate.	<p align="center">&lt;CHECK CHARGING ADAPTOR.&gt;</p> Supply rated voltage to the adaptor. OK if it is more than DC 1.8V between the terminals of the plug.	NO → Replace charging adaptor.
	↓ OK	
	<p align="center">&lt;CHECK SWITCH.&gt;</p> Replace the battery. If there is continuity between (1) and (2) with switching ON, the switch is normal.	NO → Repair or replace the switch terminal plate.
	↓ OK	
	<p align="center">&lt;CHECK MOTOR.&gt;</p> The motor should turn when 1.2V DC is applied to terminals.	NO → Replace the motor.
	↓ OK	
	<p 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 align="center">&lt;CHECK CHARGING CURRENT.&gt;</p> Replace the battery, and connect the adaptor to AC power supply with switch ON. Okay if the voltage is more than DC1.2V between (1) and (2).	OK → Replace module.
Does not charge. (Does not light LED.)	<p 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 align="center">&lt;CHECK MODULE AND CHARGING CURRENT.&gt;</p> After fully charged, replace the battery, and connect the (+) terminal of battery with ammeter. Measure the charging current between the (+) terminal of battery and the lead wire comes from chassis with OFF position of terminal plate. Okay if it is approximately 100mA +20/-25mA.	OK → Replace module.

# 4 Disassembly and Assembly Instructions

## 4.1. Disassembly Instructions

Follow the procedure below to disassemble the main body.

1. Remove the attachment and the blade.
2. Loosen two screws tightening the blade springs and two housing screw.
3. Separate housing A and B by opening at the blade side.
4. Take out the motor and module from housing A.
5. Unsolder the lead wires and separate the motor from the module.
6. Remove the switch handle.



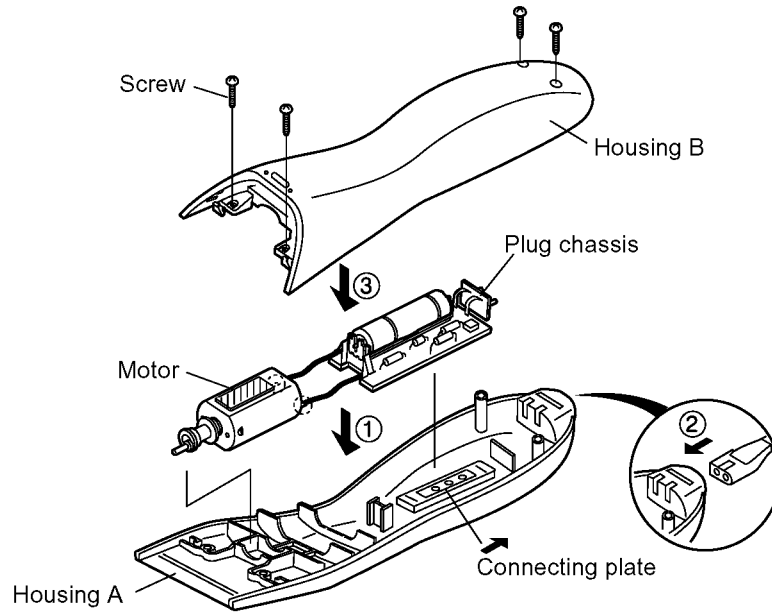
## 4.2. Assembly Instructions

1. Connect the motor with the lead wire.

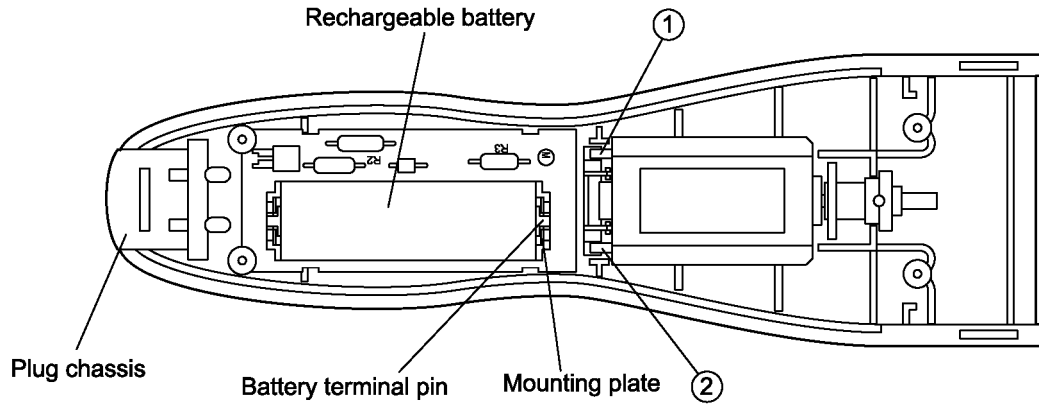
**NOTE:**

Motor has its own direction on assembly. Place the label side on top.

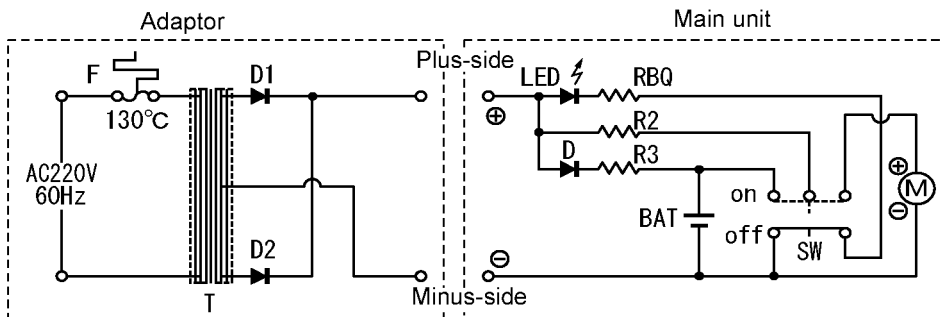
2. Confirm both switch handle and switch contact block are set OFF position. Place the motor and module assembly into the Housing A.
3. Make sure that the plug chassis and motor are assembled properly and connect with adaptor. Confirm if the motor rotates when turning the switch ON.
4. Tighten four screws with Housing A and B.



## 5 Wiring Connection Diagram



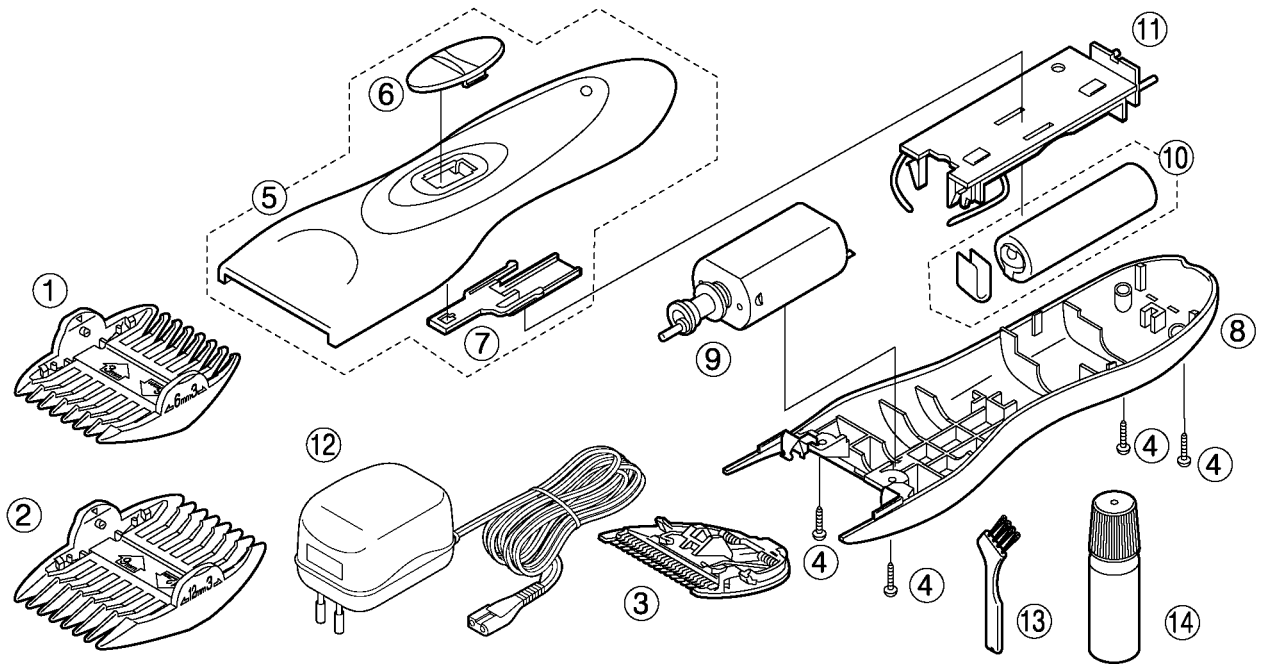
## 6 Schematic Diagram



F	Thermal fuse
T	Transformer
D1	Diode
D2	Diode
LED	LED B
D	Diode
RBQ	Resistor BQ
R2	Resistor R2
R3	Resistor R3
BAT	Rechargeable battery
M	Motor

# 7 Exploded View and Replacement Parts List

## 7.1. Exploded View



## 7.2. Replacement Parts List

Safety	Ref. No.	Part No.	Part Name & Description	Quantity	Remarks
	1	WER131H7399	COMB ATTACHMENT A	1	(3/6mm) <BG>
	2	WER131H7409	COMB ATTACHMENT B	1	(9/12mm) <BG>
	3	WER9181Y	BLADE BLOCK	1	
	4	WER850B9006	SCREW	4	(K2-8) <BG>
	5	WER131H3059	HOUSING A	1	<BG>
	6	WER131H3209	SWITCH HANDLE	1	<BG>
	7	WER131L0058	CONNECTING PLATE	1	<BG>
	8	WER131H3069	HOUSING B	1	<BG>
	9	WER145L1006	MOTOR	1	<BG>
	10	WER131L2508	RECHARGEABLE BATTERY	1	(Ni-Cd Type) <BG>
	11	WER131L2109	MODULE	1	<BG>
	12	WER131K7664	CHARGING ADAPTOR	1	(C-2 PLUG) <BG>
	13	WES76806766	CLEANING BRUSH	1	<BG>
	14	WER203X7916	OIL	1	<BG>
	-	WER131H8009	INDIVIDUAL BOX	1	<BG>
	-	WER131H8109	OPERATING INSTRUCTIONS	1	<BG>

Panasonic ER131.User manual, Service manual site <http://panatex.com.ua>.