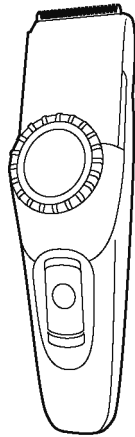


# Service Manual

AC/Rechargeable Hair Clipper

Model No. **ER-GC70**  
**ER-GC50**

Oceania



## ⚠ 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
Motor voltage	1.2V DC
Charging time	8 hours
Rated usable time with full-charging	40 minutes
Weight	Approx. 180g (Main body)
	Approx. 170g (Adaptor)

Supplied accessories	1-5mm comb attachment
	6-25mm comb attachment
	26-45mm comb attachment (Only for ER-GC70)
	Pouch (Only for ER-GC70)
	Cleaning brush
	Oil

# 3 Troubleshooting Guide

<TROUBLE>	<CHECK.>	<REMEDY>
Does not operate.	<p>(Connect adaptor and charge for 10 seconds. Confirm if the switch turn ON.)</p> <p>&lt;CHECK ADAPTOR.&gt; Supply the rated voltage to the adaptor. OK if it is more than DC 1.8V between the terminals of the plug.</p>	NO → Replace adaptor.
	↓ OK	
	<p>&lt;CHECK SWITCH.&gt; Replace the battery. If there is continuity between (1) and (2) with switching ON, the switch is normal. (See Fig. 1.)</p>	NO → Replace the switch terminal plate.
	↓ OK	
	<p>&lt;CHECK MOTOR.&gt; The motor should turn when 1.2V DC is applied to terminals.</p>	NO → Replace the motor.
	↓ OK	
	<p>&lt;CHECK RECHARGEABLE BATTERY.&gt; Okay if the voltage of rechargeable battery is more than approximately 1.2V DC between (+) and (-) terminals.</p>	NO → Replace rechargeable battery.
	↓ OK	
	<p>&lt;CHECK MODULE.&gt; Replace the battery and set the switch ON. Connect the adaptor with the plug chassis and supply the rated voltage. OK if it is more than DC 1.2V between (1) and (2). NOTE: Make sure of the electrical polarity on adaptor.</p>	NO → Replace the module.
Does not charge. Does not light the charge indicator lamp.	<p>&lt;CHECK RECHARGEABLE BATTERY.&gt; Okay if the voltage of rechargeable battery is more than approximately 1.2V DC between (+) and (-) terminals.</p>	NO → Replace rechargeable battery.
	↓ OK	
	<p>&lt;CHECK CHARGING CURRENT.&gt; Replace the battery and wire the module &amp; battery assembly referring with the figure 2. Check charging current, if it is more than 75mA when connecting AC power source with swith OFF.</p>	OK → Replace module.

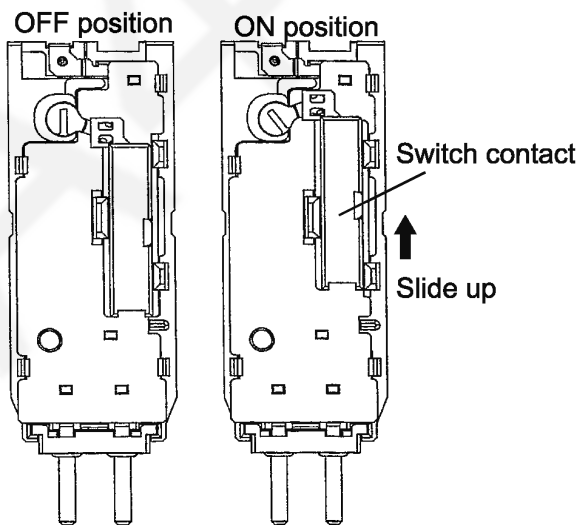


Fig.1

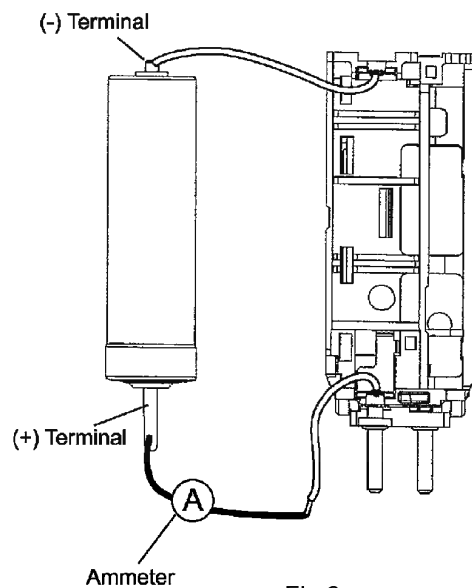
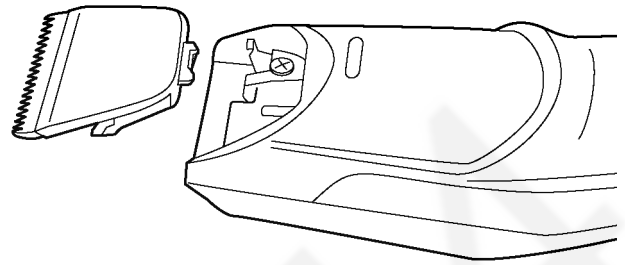


Fig.2

## 4 Disassembly and Assembly Instructions

### 4.1. Disassembly Instructions

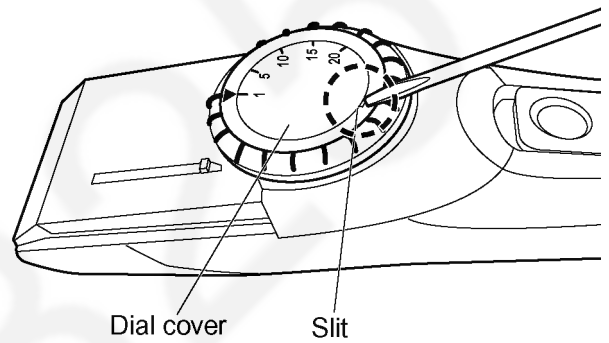
1. Remove the blade.



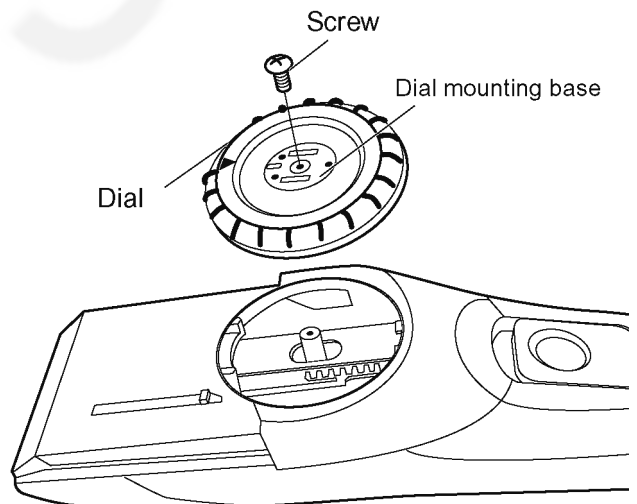
2. Insert a slotted screwdriver into the slit of dial cover firmly and raise it with the driver.

**NOTE :**

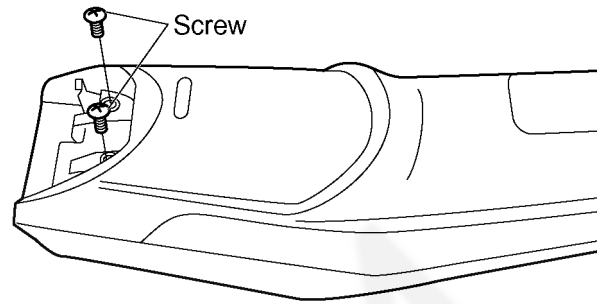
Make sure there is NO scratch or damage on the parts.



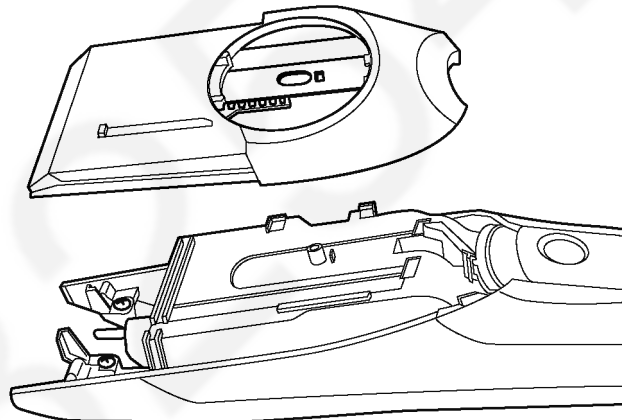
3. Loosen a screw and take out the dial with the dial mounting base.



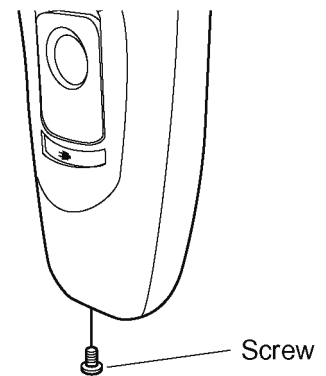
4. Loosen two screws.



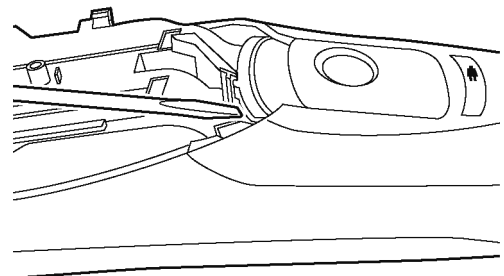
5. Remove the housing C.



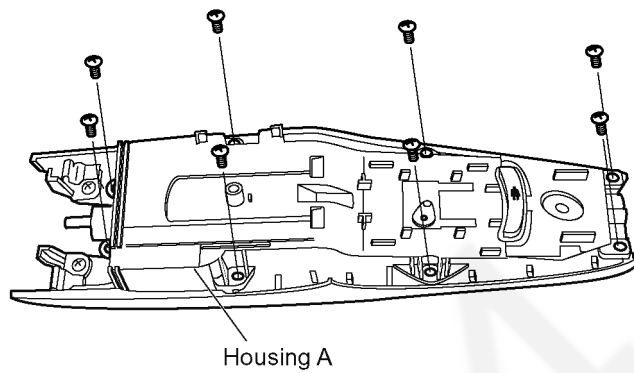
6. Loosen a screw.



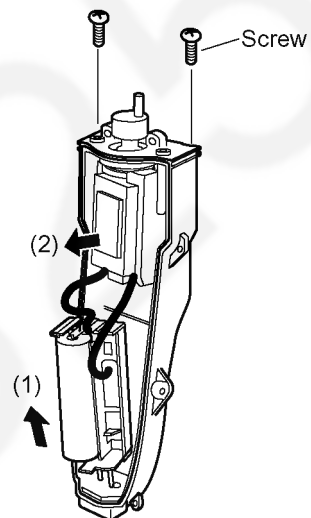
7. Insert a slotted screwdriver under the front panel, then raise the front panel with the driver slightly.



8. Loosen 8 screws and remove the housing A.



9. Loosen 2 screws and remove the module assembly with rechargeable battery first, then remove the motor holder.



## 4.2. Assembly Instructions

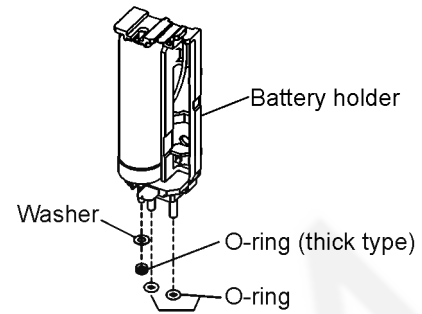
For assembly, reverse the order of disassembly.

1. Insert the rechargeable battery into the battery holder.

**NOTE:**

Make sure to attach the washer and O-ring to the battery terminal. The O-ring for the battery terminal is the thickest. Confirm if the O-ring is attached properly.

- Battery terminal : washer x 1 and O-ring x 1
- terminal pins: o-ring x 1



2. Set the motor holder first, then set the module assembly with rechargeable battery.

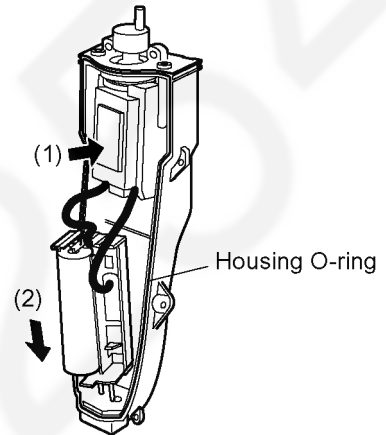
**NOTE:**

Make sure that two motor lead wires are set within the space between the battery holder and the motor holder to prevent pinching.

**NOTE:**

Make sure to attach the switch cam with the lowest position.

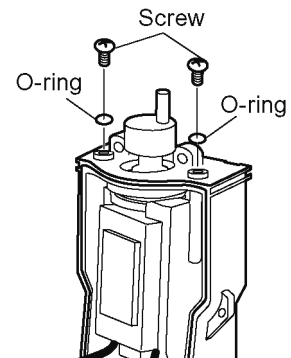
Apply the grease (G741S) on the housing O-ring.



3. Fix the motor holder in housing A with two screws.

**NOTE:**

Make sure that two O-rings are set.

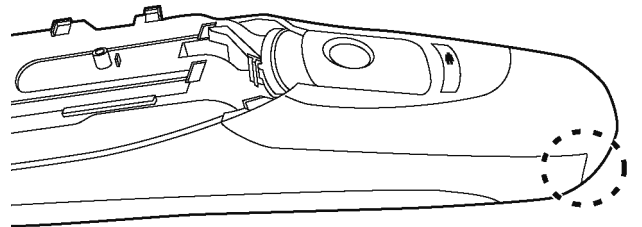


4. Set the front panel.

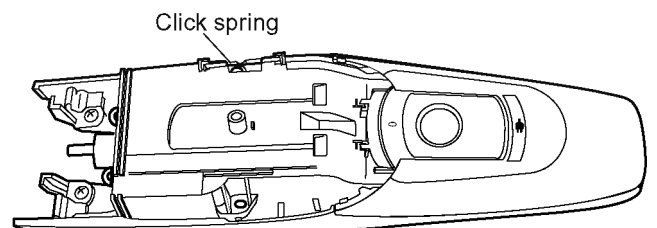
**NOTE:**

Hook the bottom side first and fix the front panel.

Make sure to set the switch handle to the "0" position.



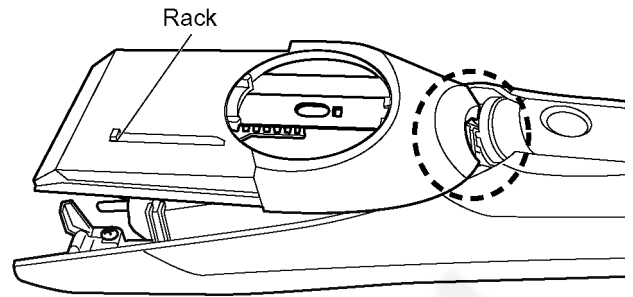
5. Set the click spring.



6. Set the housing C.

**NOTE:**

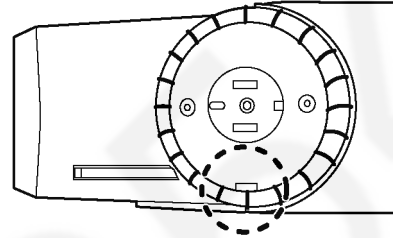
Make sure to set the rack.  
Insert the hook of housing C under the front panel first.



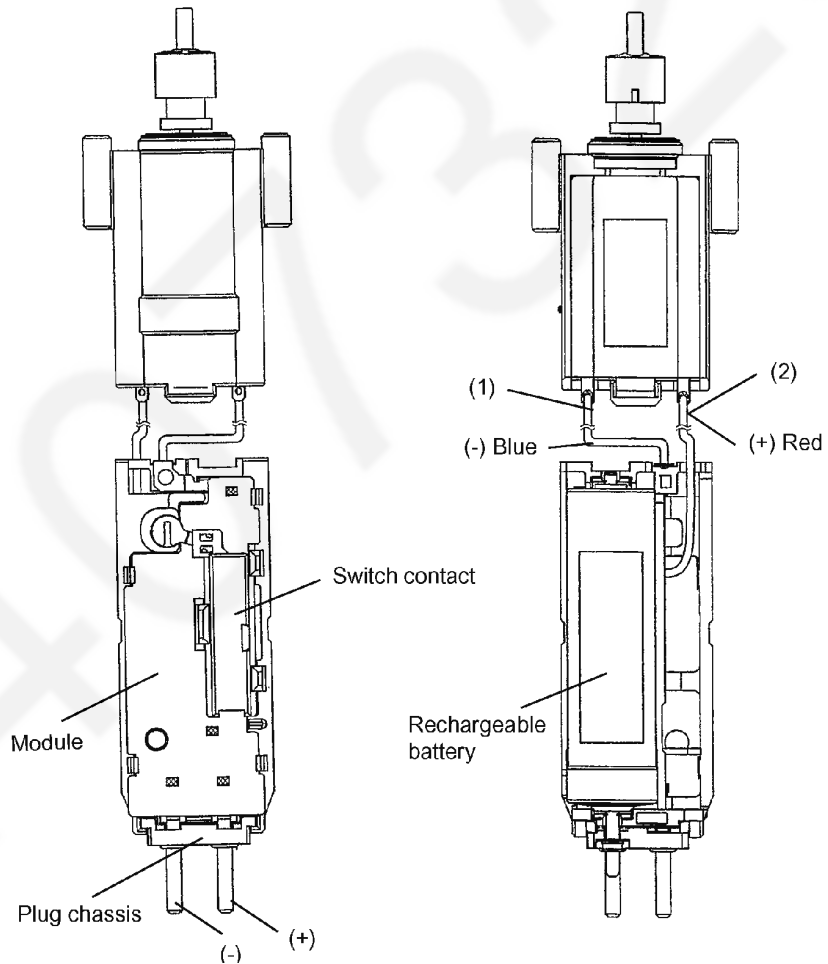
7. Fix the dial and the dial mounting base by a screw.

**NOTE:**

Make sure to set the slit at left side.  
Apply the grease (G741S) on the gear of dial.

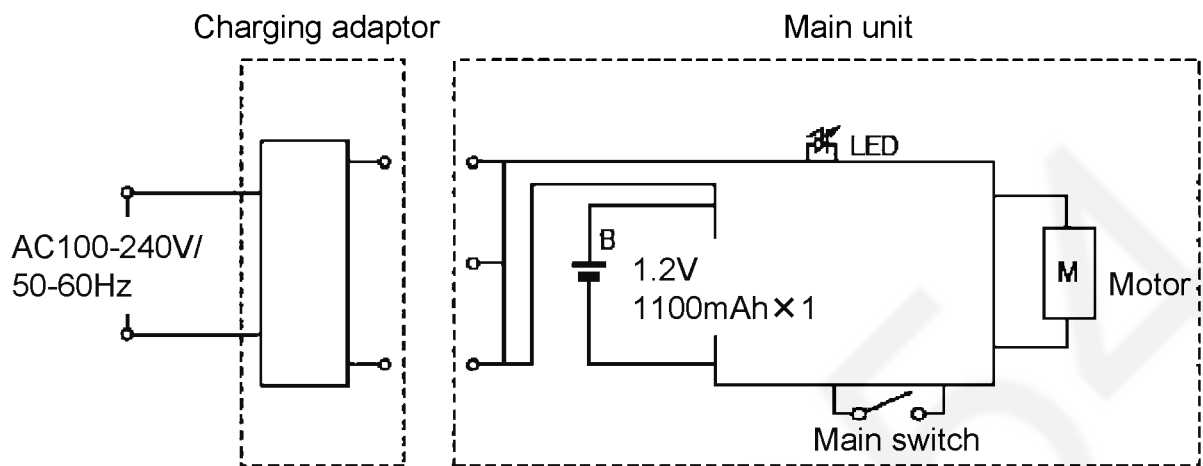


## 5 Wiring Connection Diagram



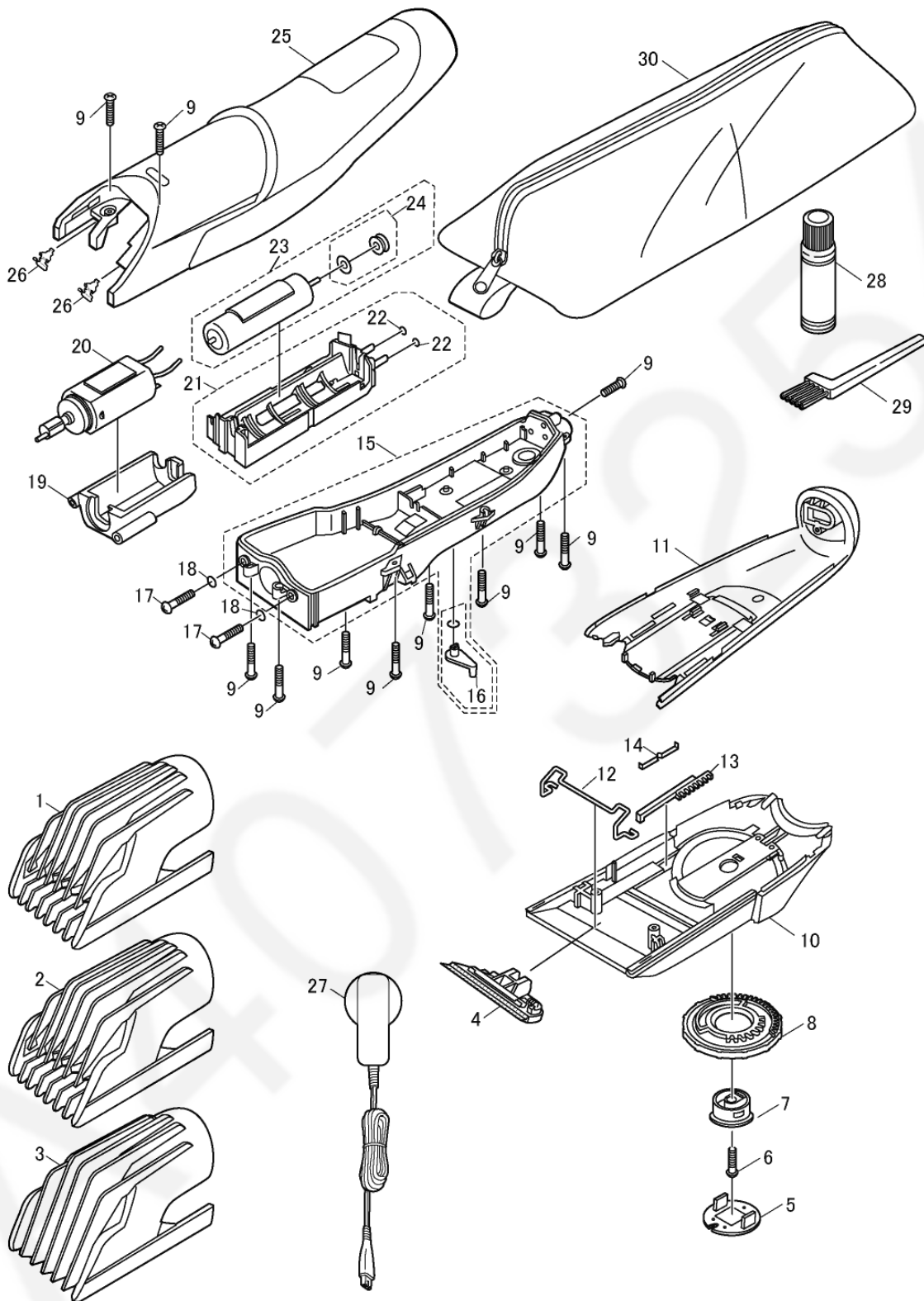


## 6 Schematic Diagram



# 7 Exploded View and Replacement Parts List

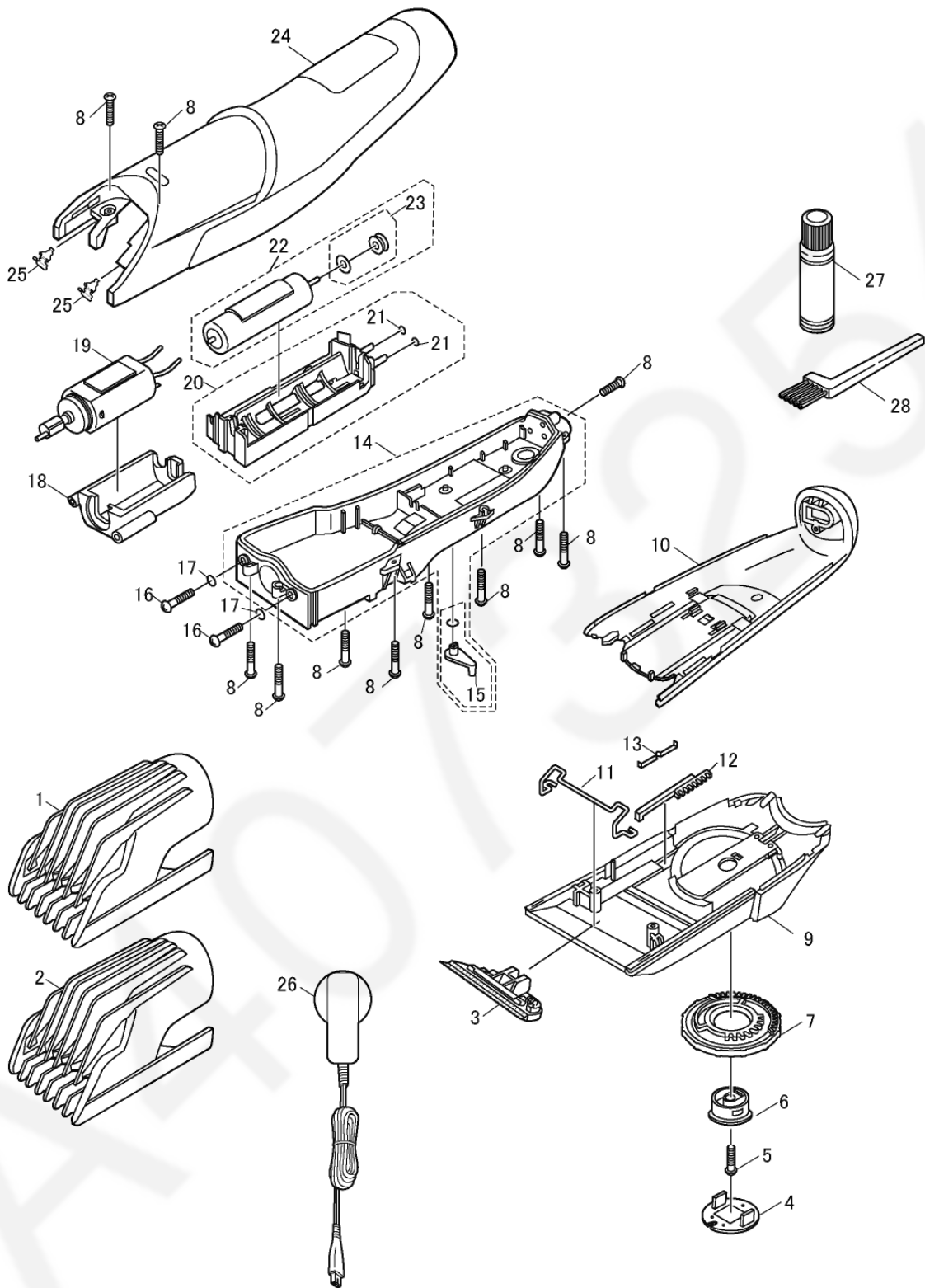
Model No. : ER-GC70 Exploded View



**Model No. : ER-GC70 Parts List**

Safety	Ref. No.	Part No.	Part Name & Description	Q'ty	Remarks
ER-GC70					
	1	WERGC70S7458	COMB ATTACHMENT	1	(1-5mm), [BG]
	2	WERGC70K7468	COMB ATTACHMENT	1	(6-25mm), [BG]
	3	WERGC70X7478	COMB ATTACHMENT	1	(26-45mm), [BG]
	4	WER9605Y	BLADE BLOCK	1	
	5	WERGC70S3108	DIAL COVER	1	[BG]
	6	WES7023L9008	TAPPING SCREW	1	(M2-6), [BG]
	7	WER217D1477	DIAL MOUNTING BASE	1	[BG]
	8	WERGC70S3338	DIAL	1	[BG]
	9	WES631W6057	SCREW	11	(K2-8), [BG]
	10	WERGC70S3028	HOUSING C	1	[BG]
	11	WERGC70S3858	FRONT PANEL	1	[BG]
	12	WERGC70L0208	WIRE SPRING	1	[BG]
	13	WERGC70L0288	RACK	1	[BG]
	14	WER221L1578	CLICK SPRING	1	[BG]
	15	WERGC70K3058	HOUSING A	1	[BG]
	16	WER217L1678	SWITCH CAM	1	[BG]
	17	WES7025L9707	SCREW	2	[BG]
	18	WER217L0967	O-RING	2	(6PCS/PK), [BG]
	19	WER217L3577	MOTOR HOLDER	1	[BG]
	20	WER217L1008	MOTOR	1	[BG]
	21	WERGC70L2108	MODULE ASSEMBLY	1	[BG]
	22	WER217L0977	O-RING	2	(2PCS/PK), [BG]
	23	WER221L2506	RECHARGEABLE BATTERY	1	(NI-MH TYPE), [BG]
	24	WES7025L0977	O-RING AND WASHER	1	(2ST), [BG]
	25	WERGC70K3060	HOUSING B	1	[BG]
	26	WER504L0167	SPRING FOR CUTTER	2	[BG]
	27	WERGC70K7666	ADAPTOR	1	(O PLUG), [BG]
	28	WER203X7918	OIL	1	[BG]
	29	WES76806761	CLEANING BRUSH	1	[BG]
	30	WER217K7007	SOFT CASE	1	[BG]
	-	WERGC70S8000	INDIVIDUAL BOX	1	[BG]
	-	WERGC70S8100	OPERATING INSTRUCTIONS	1	[BG]

**Model No. : ER-GC50 Exploded View**



**Model No. : ER-GC50 Parts List**

Safety	Ref. No.	Part No.	Part Name & Description	Q'ty	Remarks
ER-GC50					
	1	WERGC50K7458	COMB ATTACHMENT	1	(1-5mm), [BG]
	2	WERGC70K7468	COMB ATTACHMENT	1	(6-25mm), [BG]
	3	WER9605Y	BLADE BLOCK	1	
	4	WERGC50S3108	DIAL COVER	1	[BG]
	5	WES7023L9008	TAPPING SCREW	1	(M2-6), [BG]
	6	WER217D1477	DIAL MOUNTING BASE	1	[BG]
	7	WERGC50K3338	DIAL	1	[BG]
	8	WES631W6057	SCREW	11	(K2-8), [BG]
	9	WERGC50K3028	HOUSING C	1	[BG]
	10	WERGC50K3858	FRONT PANEL	1	[BG]
	11	WERGC70L0208	WIRE SPRING	1	[BG]
	12	WERGC70L0288	RACK	1	[BG]
	13	WER221L1578	CLICK SPRING	1	[BG]
	14	WERGC50K3058	HOUSING A	1	[BG]
	15	WER217L1678	SWITCH CAM	1	[BG]
	16	WES7025L9707	SCREW	2	[BG]
	17	WER217L0967	O-RING	2	(6PCS/PK), [BG]
	18	WER217L3577	MOTOR HOLDER	1	[BG]
	19	WER217L1008	MOTOR	1	[BG]
	20	WERGC70L2108	MODULE ASSEMBLY	1	[BG]
	21	WER217L0977	O-RING	2	(2PCS/PK), [BG]
	22	WER221L2506	RECHARGEABLE BATTERY	1	(NI-MH TYPE), [BG]
	23	WES7025L0977	O-RING AND WASHER	1	(2ST), [BG]
	24	WERGC50K3060	HOUSING B	1	[BG]
	25	WER504L0167	SPRING FOR CUTTER	2	(2PCS/PK), [BG]
	26	WERGC70K7666	ADAPTOR	1	(O PLUG), [BG]
	27	WER203X7918	OIL	1	[BG]
	28	WES76806761	CLEANING BRUSH	1	[BG]
	-	WERGC50K8001	INDIVIDUAL BOX	1	[BG]
	-	WERGC70S8100	OPERATING INSTRUCTIONS	1	[BG]