# Service Manual

AC/Rechargeable Shaver

Model No. ES-LV90 ES-LV50

Asia





Please file and use this manual together with the service manual for Model No. ES-LA92/ES-LA62, Order No.SD0906A65CE.

#### **⚠ 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  $\triangle$  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 that standard solder; Typicall 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).

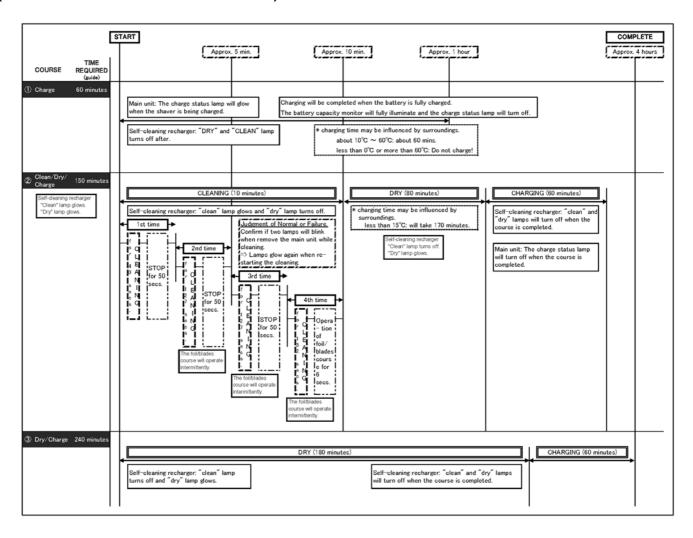
## 2 Specifications

Power source	AC 100-240V, 50-60Hz (Automatic voltage conversion)		
Power consumption	Approx. 7W (when charging)		
Charging time	1 Hour		
Shaves per charge	14 times (3 minutes shave)		
20/-1-1-1	ES-LV90	Approx. 195g (without protective cap)	
Weight	ES-LV50	Approx. 185g (without protective cap)	

Supplied accessories	Self-cleaning recharger (ES-LV90 Only)			
	ES-LV90	Hard case		
	ES-LV50 Soft case			
	Oil			
	Cleaning brush			

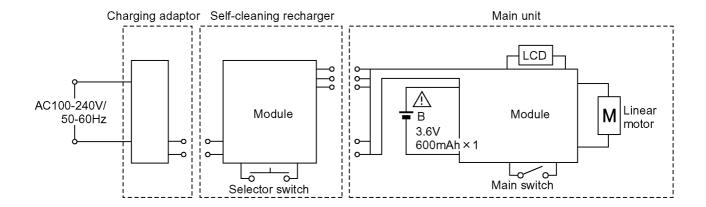
## 3 Troubleshooting Guide

(OPERATION OF SELF-CLEANING RECHARGER)

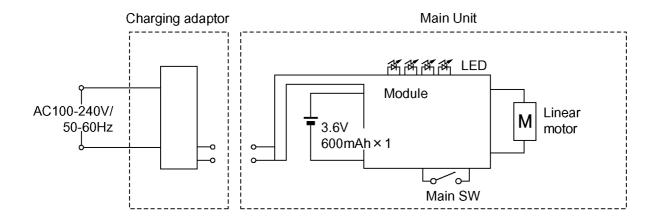


## 4 Schematic Diagram

## 4.1. ES-LV90

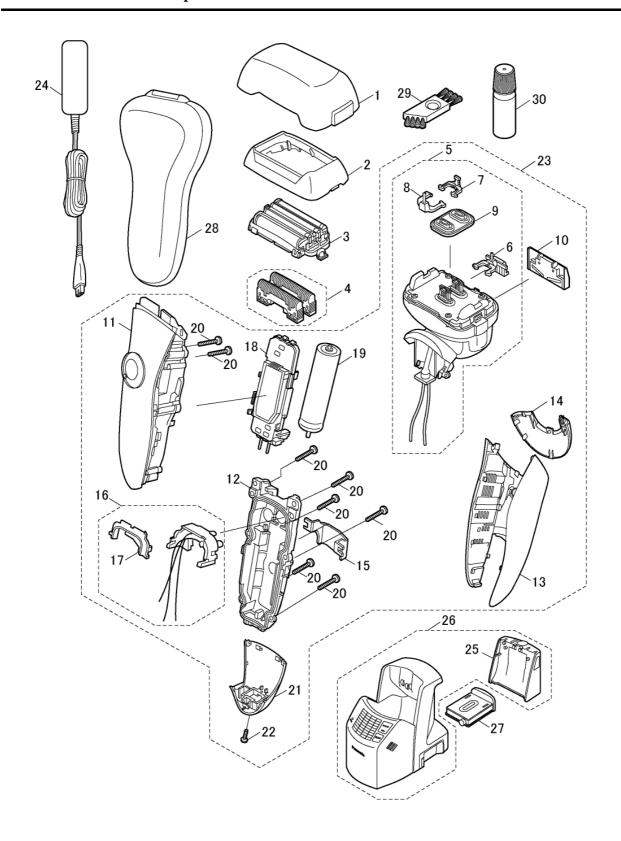


#### 4.2. ES-LV50



## 5 Exploded View and Replacement Parts List

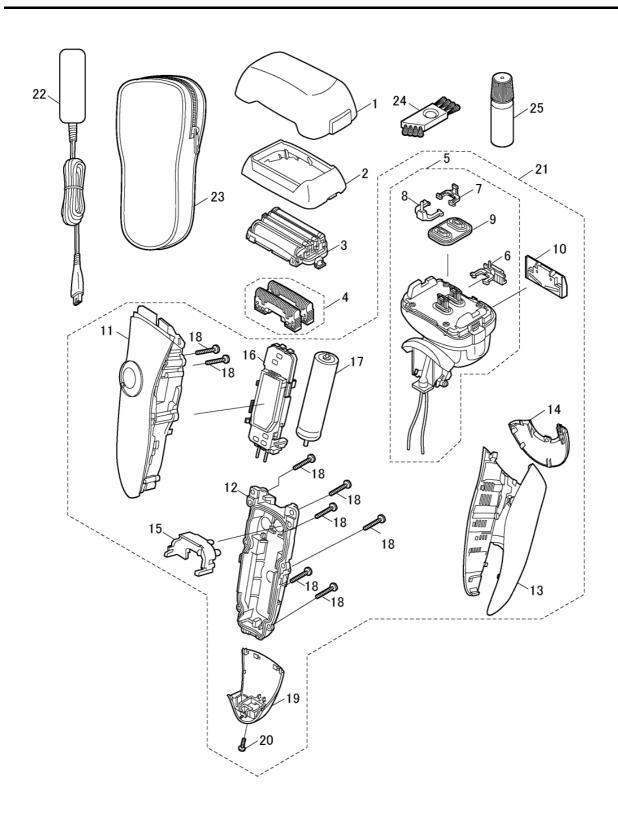
Model No.: ES-LV90 Exploded View



### Model No.: ES-LV90 Parts List

Safaty	Ref.	Part No.	Part Name & Description	01+17	Remarks
Safety	No.	Part No.	Part Name & Description	Q'ty	Relialks
ES-LV90		<u> </u>	T	1	
	1	WESLV90X7158	PROTECTIVE CAP	1	
	2	WESLV90S0047	OUTER FOIL FRAME	1	
	3	WES9171E	OUTER FOIL		
	4	WES9170E	INNER BLADE	1ST	
	5	WESLV90L1007	LINEAR MOTOR ASSEMBLY	1	
	6	WESLV90L1087	TRIMMER DRIVING BAR		
	7	WESLV90L1077	SLIT BLADE DRIVING BAR	1	
	8	WESLV90L1177	FINISHING BLADE DRIVING BAR	1	
	9	WESLV90L0327	WATERPROOF RUBBER	1	
	10	WESLV90L1507	TRIMMER	1	
	11	WESLV90K3058	HOUSING A	1	
	12	WESLV90H3067	HOUSING B	1	
	13	WESLV90K3367	REAR PANEL	1	
	14	WESLV90K3857	TOP REAR PANEL	1	
	15	WESLA92L0487	CONNECTING PLATE	1	
	16	WES8258L0497	TERMINAL BASE	1	
	17	WES8238H0527	TERMINAL COVER	1	
	18	WESLV90L2127	MODULE	1	
	19	WES8176L2509	RECHARGEABLE BATTERY	1	(LI-ION TYPE)
	20	WES8176L6007	P TIGHT SCREW	8	(M2-12)
	21	WESLV90K3129	BOTTOM COVER	1	
	21	WESLV90K3120	BOTTOM COVER	1	(ONLY TAIWAN)
	22	WES8176L6057	TAPPING SCREW	1	(M2-8)
	23	WESLV90K3039	BODY BLOCK	1	
	23	WESLV90K3030	BODY BLOCK	1	(ONLY TAIWAN)
	24	WESLV90K7663	CHARGING ADAPTOR	1	(C-2 PLUG)
	24	WESLV90K7662	CHARGING ADAPTOR	1	(A-2 PLUG)
	25	WESLV90K7358	WATER TANK	1	
	26	WESLV81K4218	SELF-CLEANING RECHARGER	1	
	26	WESLV90K4210	SELF-CLEANING RECHARGER	1	(ONLY TAIWAN)
	27	WES035K7778	DETERGENT CARTRIDGE	1	(3 PIECES/BOX)
	28	WESLV90K3747	HARD CASE	1	
	29	WES8093H7057	CLEANING BRUSH	1	
	30	WES8196X7918	OIL	1	
	_	WESLV90K8009	INDIVIDUAL BOX	1	
	-	WESLV90K8000	INDIVIDUAL BOX	1	(ONLY TAIWAN)
	-	WESLV90K8109	OPERATING INSTRUCTIONS	1	
	_	WESLV90K8100	OPERATING INSTRUCTIONS	1	(ONLY TAIWAN)

### Model No.: ES-LV50 Exploded View



#### Model No.: ES-LV50 Parts List

	D - C	1	1				
Safety	Ref. No.	Part No.	Part Name & Description	Q'ty	Remarks		
ES-LV50	ES-LV50						
	1	WESLV90X7158	PROTECTIVE CAP	1			
	2	WESLV90S0047	OUTER FOIL FRAME	1			
	3	WES9171E	OUTER FOIL	1			
	4	WES9170E	INNER BLADE	1ST			
	5	WESLV90L1007	LINEAR MOTOR ASSEMBLY	1			
	6	WESLV90L1087	TRIMMER DRIVING BAR	1			
	7	WESLV90L1077	SLIT BLADE DRIVING BAR	1			
	8	WESLV90L1177	FINISHING BLADE DRIVING BAR	1			
	9	WESLV90L0327	WATERPROOF RUBBER	1			
	10	WESLV90L1507	TRIMMER	1			
	11	WESLV50K3058	HOUSING A	1			
	12	WESLV90H3067	HOUSING B	1			
	13	WESLV90K3367	REAR PANEL	1			
	14	WESLV90K3857	TOP REAR PANEL	1			
	15	WES8255L0497	REAR COVER	1			
	16	WESLV50L2127	MODULE	1			
	17	WES8176L2509	RECHARGEABLE BATTERY	1	(LI-ION TYPE)		
	18	WES8176L6007	P TIGHT SCREW	8	(M2-12)		
	19	WESLV50K3129	BOTTOM COVER	1			
	20	WES8176L6057	TAPPING SCREW	1	(M2-8)		
	21	WESLV50K3039	BODY BLOCK	1			
	22	WESLV90K7663	CHARGING ADAPTOR	1	(C-2 PLUG)		
	23	WESLA92K3747	SOFT CASE	1			
	24	WES8093H7057	CLEANING BRUSH	1			
	25	WES8196X7918	OIL	1			
	-	WESLV50K8009	INDIVIDUAL BOX	1			
	-	WESLV50K8109	OPERATING INSTRUCTIONS	1			