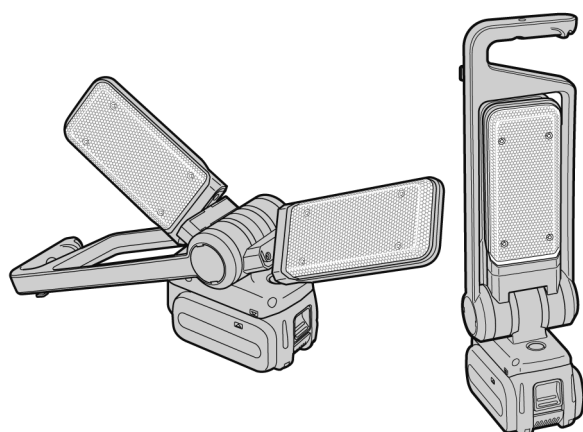


Service Manual

LED FLOODLIGHT

Model No. **EY37C3**

Europe
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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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

NOTE : Weight is indicated by 0.01 kg.

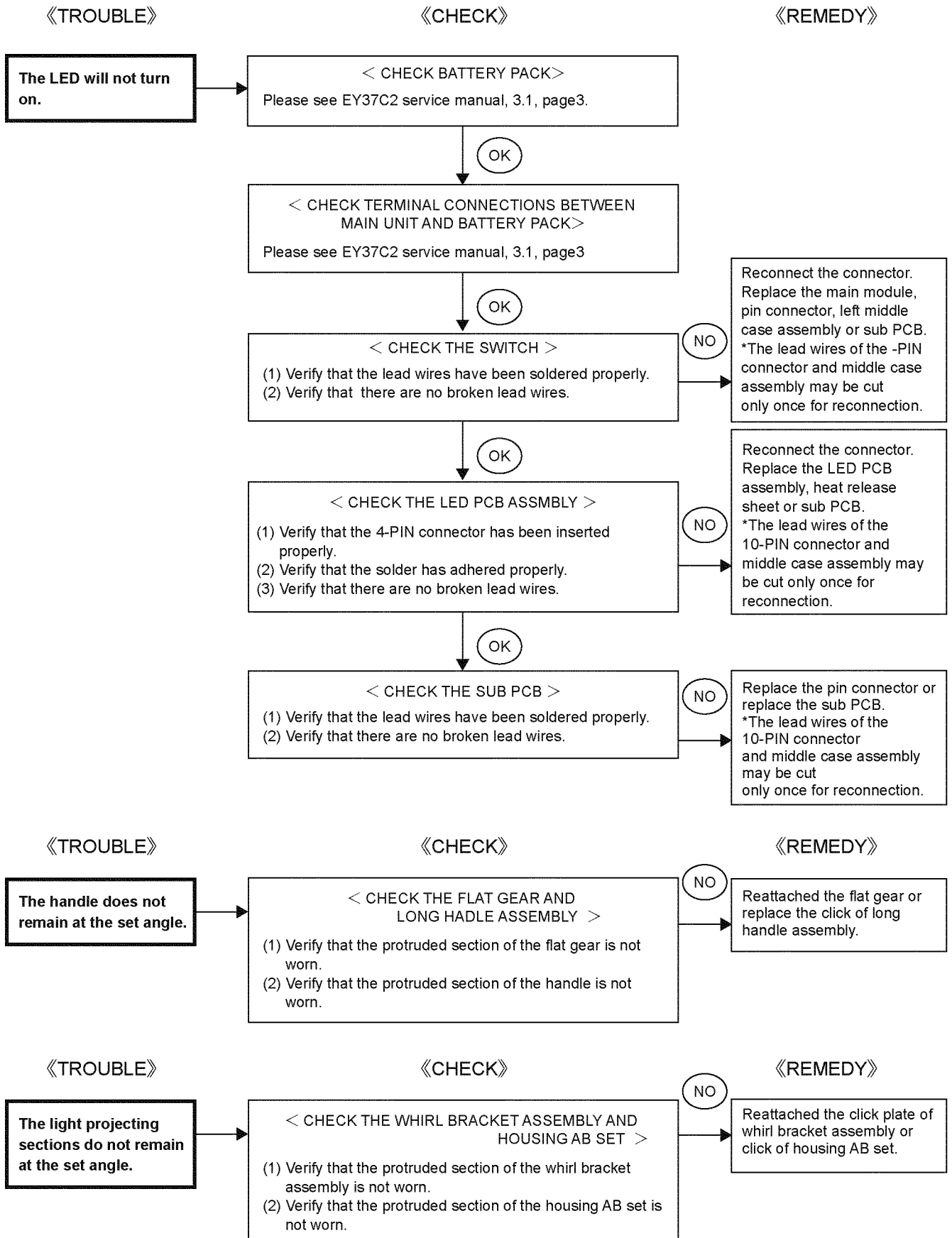
[Main unit]

Model No.	EY37C3			
Voltage	DC 14.4 V / DC18 V / DC 21.6 V			
Luminous flux	1500 lm			
Illuminance	3000 lx (Front, at a distance of 40 cm)			
Maximum projected area	0.038 m ²			
Range of the mounting height	2.9 m			
Size	125 mm × 312 mm × 96 mm			
Weight	0.61 kg (main unit only)			
Battery pack	Li-ion battery pack			
	EY9L45	EY9L47	EY9L51	EY9L52
	EY9L53	EY9L54	EY9L62	

NOTE : This chart may include models that are not available in your area.
Please refer to the latest general catalogue.

3 Troubleshooting Guide

3.1. Troubleshooting Guide



3.2. Trial Operation (after checking Troubleshooting Guide).

3.2.1. Assembly

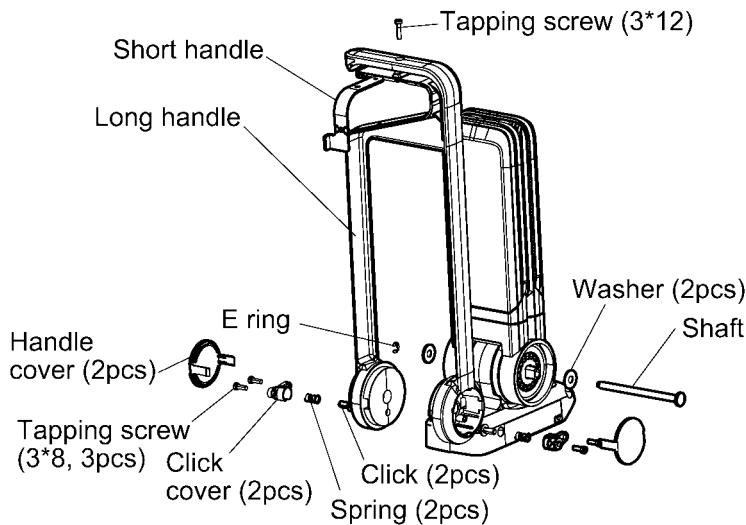
- Confirm if there is no gap between housing A and B by pinching lead wires.
- There is no dust or deformation on battery terminals.

3.2.2. Operation

- Check that each time the switch is pressed, the mode changes as follows: High mode (maximum luminance) → Middle mode (50% of high mode luminance) → Low mode (10% of high mode luminance) → Off.
- Check that when the LED is ON, holding down the switch turns the LED off.
- Check that the light projecting sections can be rotated (rotating angle: 0° to 270°).
- Check that a click is felt when the light projecting sections are opened/closed.
- Check that a click is felt when the handle is turned.

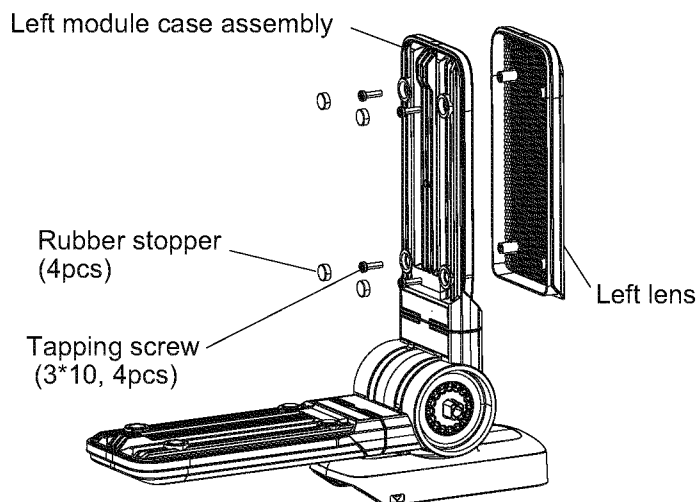
4 Disassembly and Assembly Instructions

4.1. How to remove the Handle cover and Long handle assembly



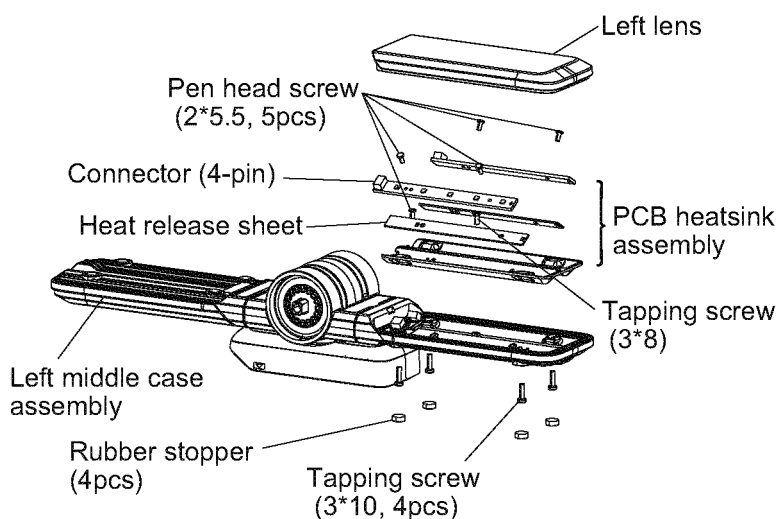
1. Remove the handle cover.
 2. Remove the E-ring.
 3. Remove the shaft and 2 washers.
 4. Remove the long handle assembly.
 5. Remove the tapping screw (3*12) and short handle from long handle.
 6. Remove the tapping screws (3*8) from the long handle assembly, and then remove the click cover, click spring and click.
- NOTE: To replace the Long handle assembly, proceed to 1-5.

4.2. How to remove the Left lens



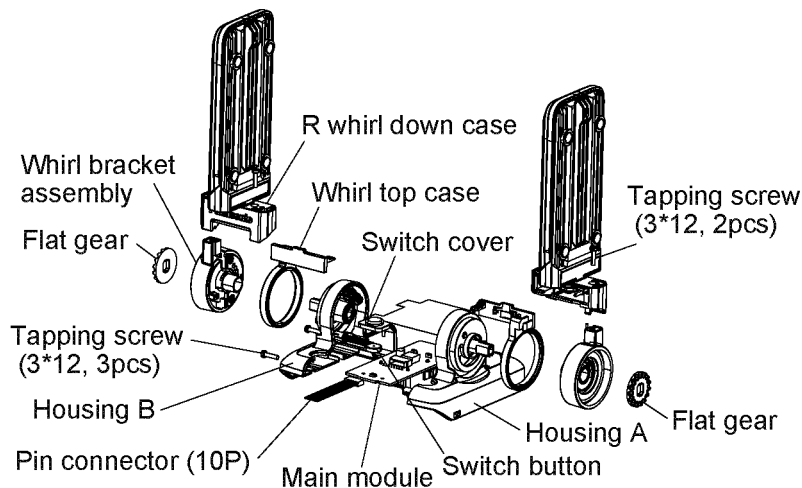
1. Remove 4 rubber stoppers.
2. Remove 4 tapping screws.
3. Remove the left lens from left the module case assembly.

4.3. How to remove the LED PCB assembly, Heat release sheet and the Heat-sink assembly.



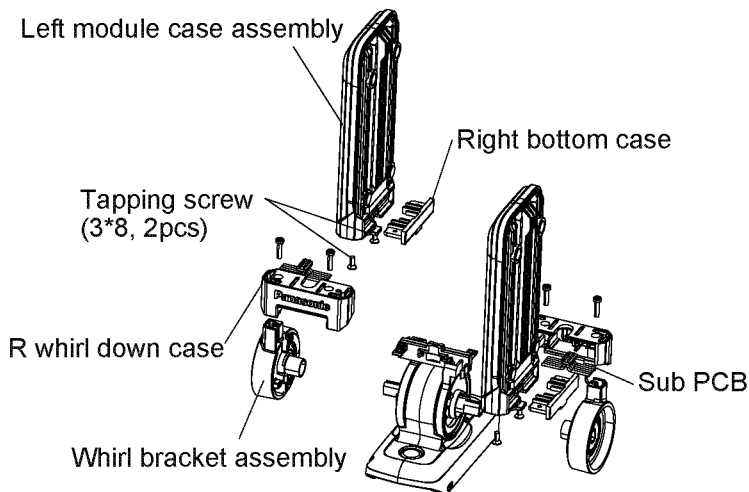
1. Conduct the steps 1 through 3 in 4.2.
 2. Remove the tapping screw (3*8) and pen head screw (2*5.5).
 3. Remove the connectors (4-pin) from LED PCB assembly.
 4. Remove the PCB heatsink assembly from the left middle case assembly.
 5. Remove 4 pen head screws (2*5.5).
 6. Remove the LED PCB assembly and heat release sheet from the PCB heatsink base.
- NOTE: To replace the Long handle assembly, proceed to 1-3.

4.4. How to remove the Main module, Switch button and the Switch cover.



1. Conduct the steps 1 through 4 in 4.1.
2. Rotate the light projecting sections 90°.
3. Remove 2 tapping screws (3*12).
4. Remove the whirl top case from the whirl down case.
5. Remove the whirl down case from the whirl bracket assembly.
6. Remove the flat gear, whirl bracket assembly and the whirl top case.
7. Remove 3 screws (3*12) that attach the housing AB set.
8. Remove the housing B from the housing A.
9. Remove the main module from the housing B.
10. Remove the pin connector, shield plate, switch cover and switch button from the main module.

4.5. How to remove the while down case and Bottom case.



1. Conduct the steps 2 through 6 in 4.4.
2. Remove the module case assembly from the whirl down case.
3. Remove 2 tapping screws (3*8).
4. Remove the bottom case from the module case.
5. Remove the sub PCB from the whirl down case.
6. Cut the lead wires at the connecting sections on the sub PCB, remove the pin connector and left module case assembly, and then dismantle the whirl down case.

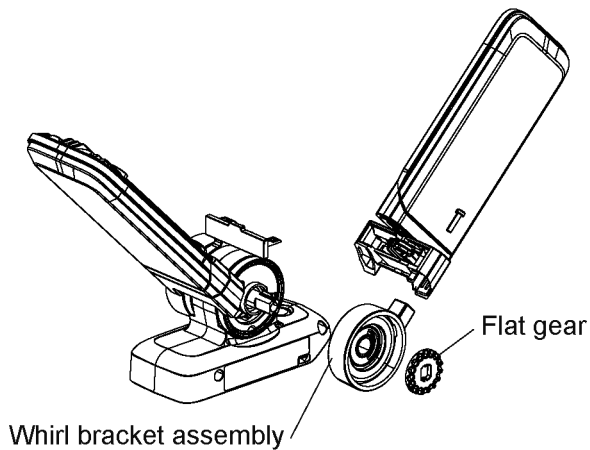
*Removal method is the same for the right-side and left-side whirl down cases and bottom cases.

*Assembly precautions

Place the lead wire of the pin connector inside the housing AB set and route it from the whirl top case to whirl bracket assembly, making sure the wire will not be caught or pinched.

The lead wires of the pin connector and left middle case assembly may be cut only once for reconnection.

4.6. How to remove the Whirl bracket assembly, Housing AB set, Whirl top case and Sub PCB.



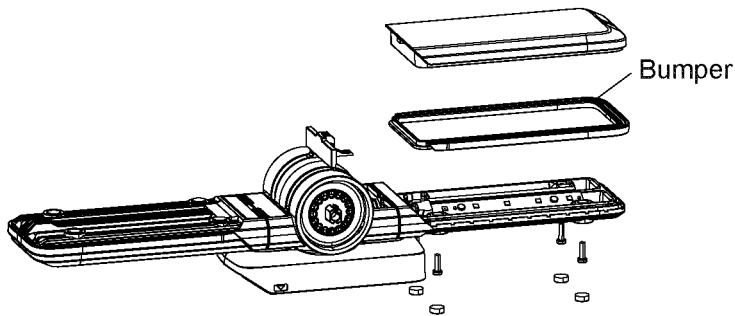
1. Conduct the steps 1 through 4 in 4.1.
2. Conduct the steps 2 through 5 in 4.4.
3. Conduct the steps 5 through 6 in 4.5.
4. Conduct the steps 7 through 10 in 4.4.

*Assembly precautions

Place the lead wire of the pin connector inside the housing AB set and route it from the whirl top case to whirl bracket assembly, making sure the wire will not be caught or pinched.

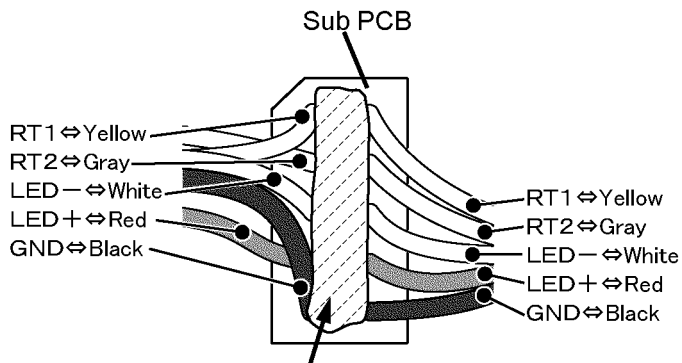
The lead wires of the pin connector and left middle case assembly may be cut only once for reconnection.

4.7. How to remove the left middle case assembly.

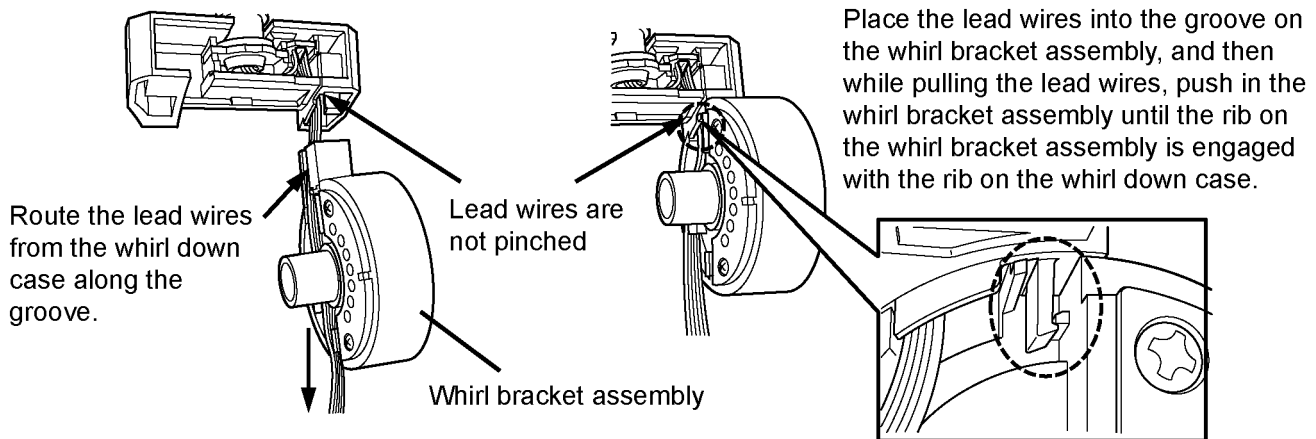
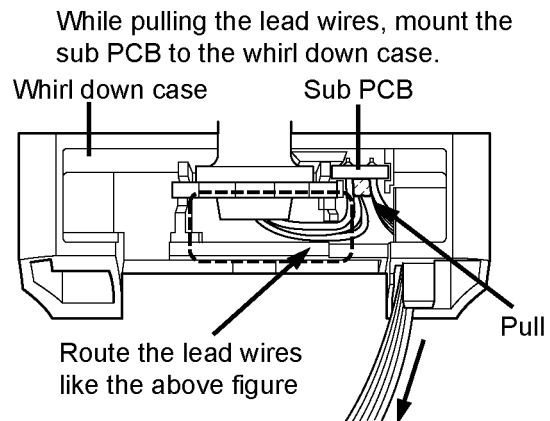


1. Conduct the steps 1 through 4 in 4.1.
2. Conduct the steps 2 through 4 in 4.4.
3. Conduct the steps 5 through 6 in 4.5.
4. Conduct the steps 1 through 3 in 4.2.
5. Conduct the steps 2 through 4 in 4.3.
6. Remove the left middle case assembly from the bumper.

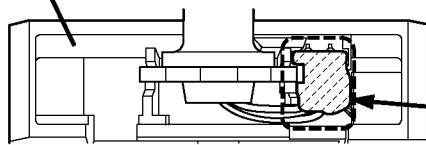
4.8. Wiring and assembly Points.



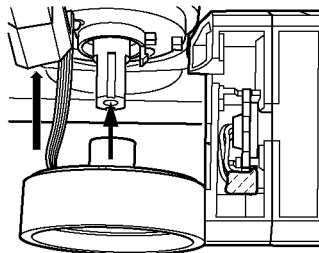
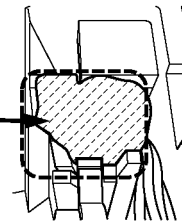
After soldering, apply silicon bond to the lead wire connecting sections.



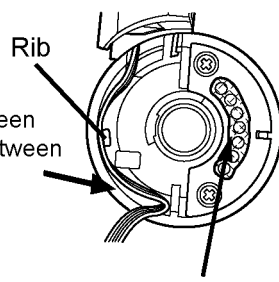
Whirl down case



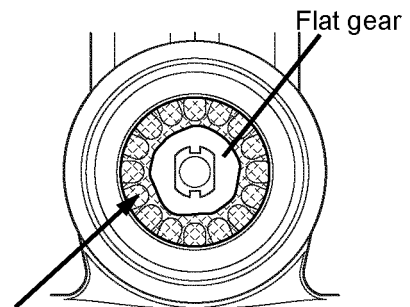
Apply silicon bond all the way to the edge of the rib.



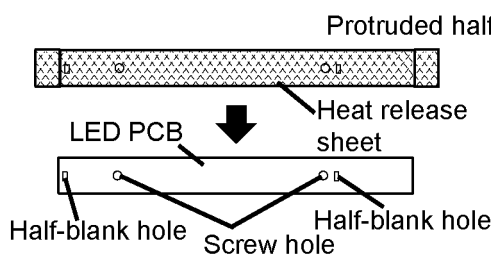
Lead wires have been securely routed between the rib.



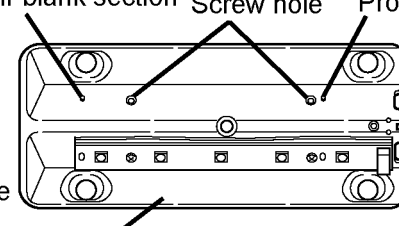
Apply grease



While pushing in the lead wires, mount the whirl bracket assembly, making sure that the lead wires are not caught or pinched.



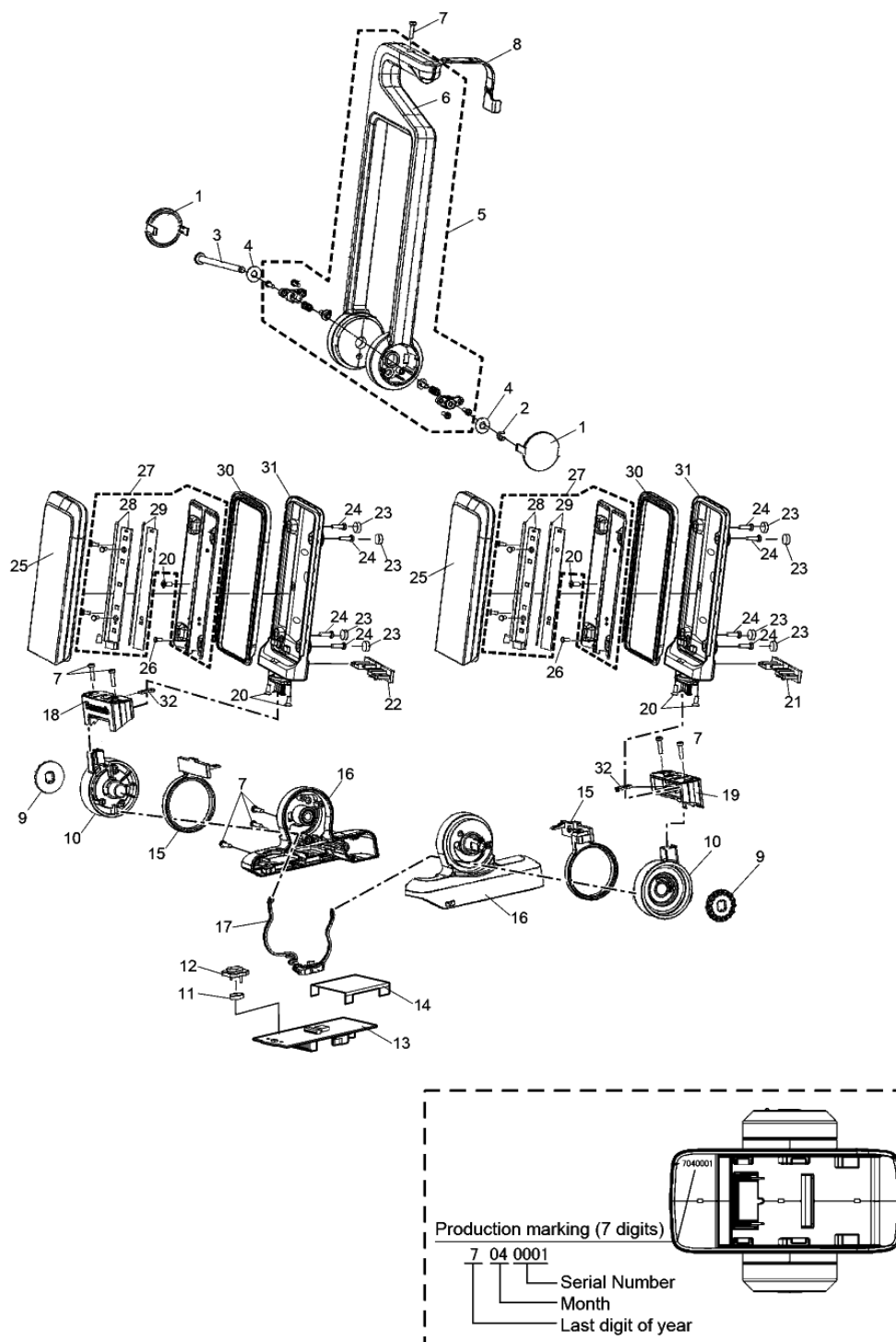
Align the holes in the heat release sheet with the holes in the LED PCB, and affix the sheet.



Attach the LED PCB affixed with the heat release sheet, ensuring proper alignment with the protruded half-blank sections and screw holes on the heatsink base.

5 Exploded View and Replacement Parts List

Model No. : EY37C3 Exploded View



Model No. : EY37C3 Parts List

Change	Safety	Ref. No.	Part No.	Part Name & Description	Q'ty	Remarks
		1	WEY37C3K3127	HANDLE COVER	2	
		2	WEY37C3K0417	E-RING	1	(5pcs/PK)
		3	WEY37C3S0347	SHAFT	1	
		4	WEY37C3S6397	WASHER	2	(5pcs/PK)
		5	WEY37C3K3217	LONG HANDLE ASSEMBLY	1	
		6	WEY37C3K3227	LONG HANDLE	1	
		7	WEY37C3K6057	TAPPING SCREW	8	(3*12), (5PCS/PK)
		8	WEY37C3K3627	SHORT HANDLE	1	
		9	WEY37C3W0457	FLAT GEAR	2	
		10	WEY37C3K0017	WHIRL BRACKET ASSEMBLY	2	
		11	WEY37C3K0577	SWITCH COVER	1	
		12	WEY37C3K3597	SWITCH BUTTON	1	
		13	WEY37C3L2107	MAIN MODULE	1	
		14	WEY37C3L0647	SHIELD PLATE	1	
		15	WEY37C3K3147	WHIRLTOP CASE	2	
		16	WEY37C3K3078	HOUSING AB SET	1	(for EUROPE)
		16	WEY37C3K3079	HOUSING AB SET	1	(for OCEANIA)
		17	WEY37C3L2087	PIN CONNECTOR	1	(10-PIN)
		18	WEY37C3K3087	R WHIRL DOWN CASE	1	
		19	WEY37C3K3097	L WHIRL DOWN CASE	1	
		20	WEY37C3S6107	TAPPING SCREW	6	(3*8), (5PCS/PK)
		21	WEY37C3K3107	LEFT BOTTOM CASE	1	
		22	WEY37C3K3118	RIGHT BOTTOM CASE	1	
		23	WEY37C3K0607	RUBBER STOPPER	8	(4pcs/PK)
		24	WEY37C3S6037	TAPPING SCREW	8	(3*10), (5PCS/PK)
		25	WEY37C3X3487	LEFT LENS	2	
		26	WEY37C3S9197	PEN HEAD SCREW	2	(2*5.5), (5PCS/PK)
		27	WEY37C3L2147	PCB HEATSINK ASSEMBLY	2	
		28	WEY37C3L2377	LED PCB ASSEMBLY	4	
		29	WEY37C3L0307	HEAT RELEASE SHEET	4	(10sheets/PK)
		30	WEY37C3K0977	BUMPER	2	
		31	WEY37C3K3157	LEFT MIDDLE CASE ASSEMBLY	2	
		32	WEY37C3L0757	SUB PCB	2	
		-	WEY37C3L8108	OPERATING INSTRUCTIONS	1	
		-	WEY001T8957	FLOIL GREASE	1	