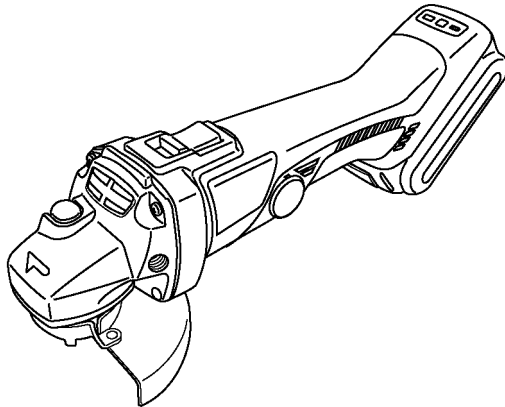


Service Manual

Cordless Angle Grinder

Model No. EY4640

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.

TABLE OF CONTENTS

	PAGE	PAGE
1 Warning -----	2	
2 Specifications -----	2	
3 Troubleshooting Guide -----	3	
4 Disassembly and Assembly Instructions -----	5	
5 Wiring Connection Diagram -----	9	
6 Schematic Diagram -----	9	
7 Exploded View and Replacement Parts List -----	10	

Panasonic

© Panasonic Electric Works Co., Ltd. 2008.
All rights reserved. Unauthorized copying and distribution is a violation of law.

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).

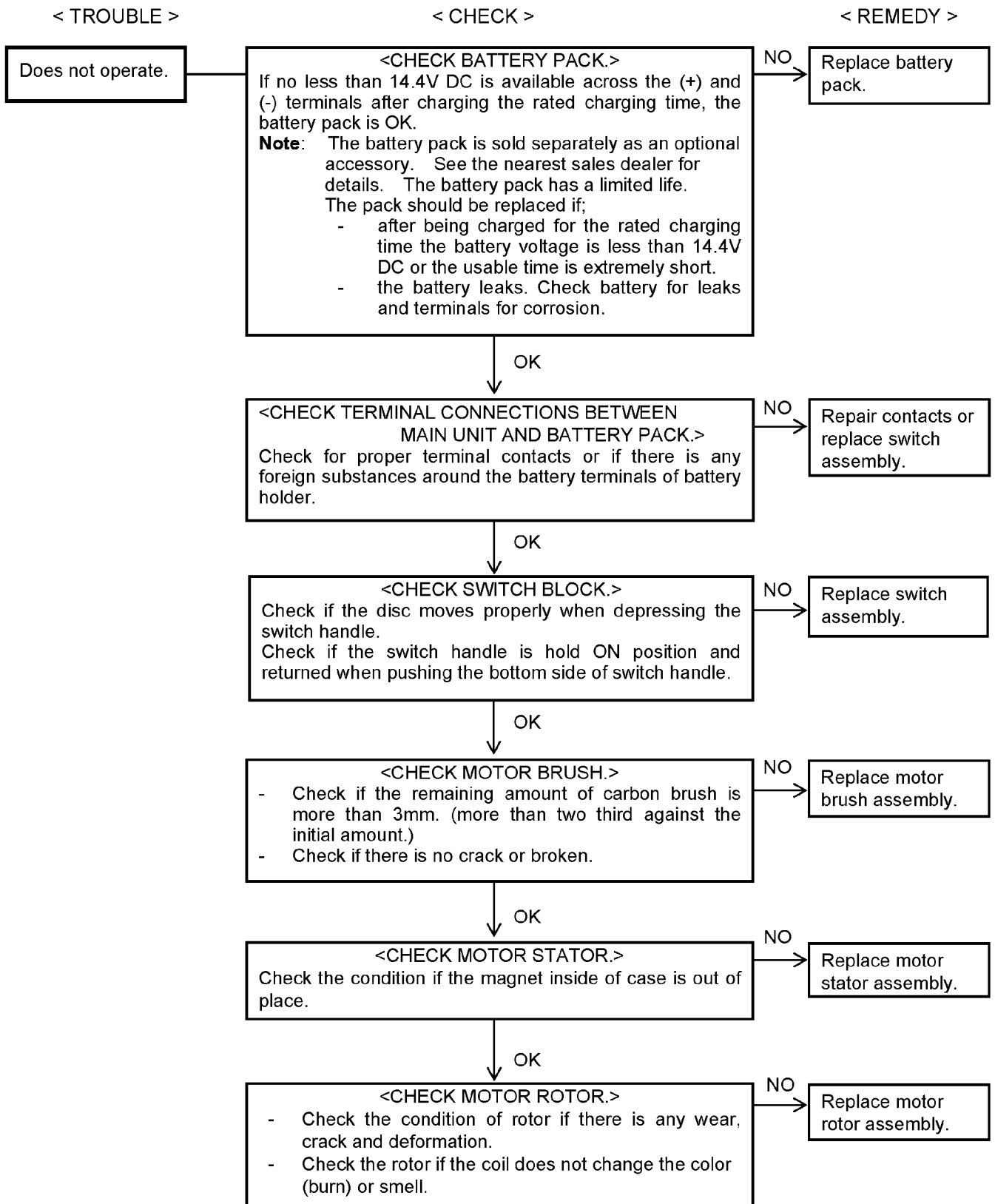
2 Specifications

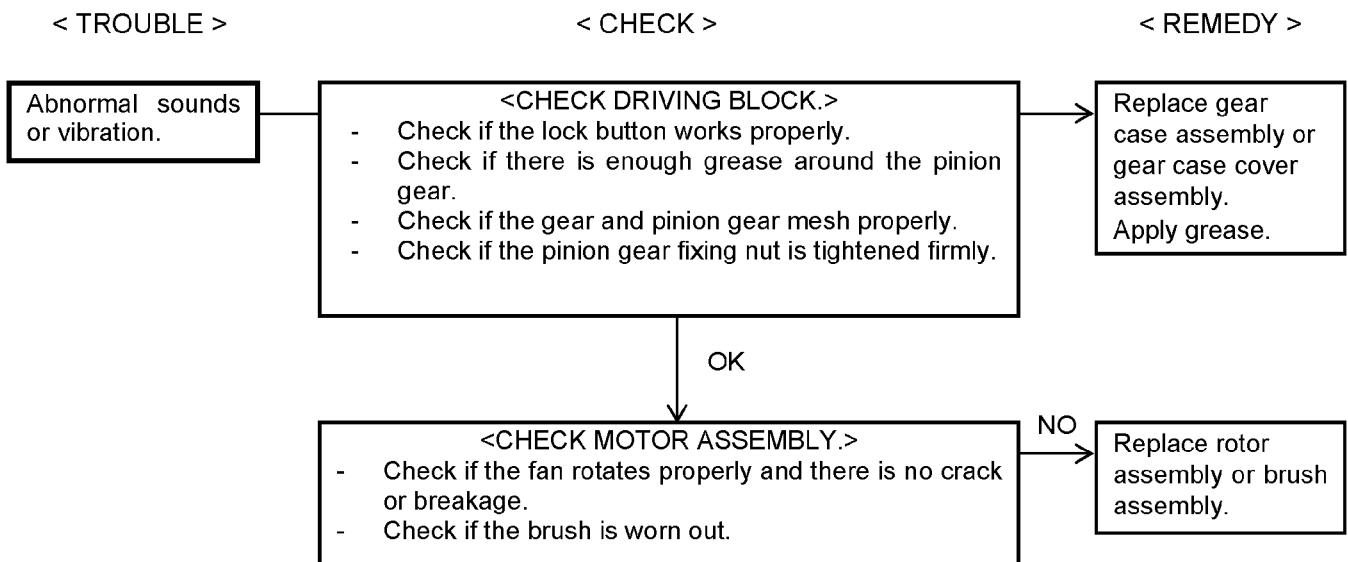
MAIN UNIT

Mounting wheel diameter	115 mm (4-1/2")
Mounting wheel innerhole diameter	22 mm (7/8")
Spindle thread size	M14
Motor voltage	14.4V DC
Strokes per minute	9500 min ⁻¹ (rpm)
Overall length	361 mm (14-7/32")
Weight (with battery pack EY9L40)	2.2 kg (4.8lbs.)

3 Troubleshooting Guide

(Refer to Wiring Connection Diagram)





3.1. Trial Operation (after checking Troubleshooting Guide.)

3.1.1. ASSEMBLY

- Confirm if there is NO gap between Housing A and B by pinching the lead wires.
- Confirm if there is NO deformation on the battery terminals.
- Confirm all screws are tightened firmly.

3.1.2. Operation

- Check if the switch turns ON and OFF smoothly.
- Check if the switch handle works properly.
- Check if there is no metallic sound, abnormal sound or abnormal vibration.
- Check if the unit generates heat abnormally in the short period.

4 Disassembly and Assembly Instructions

Ref. No. 1A	Procedure 1A	Removal of disc.
<p>Clamp nut wrench</p> <p>Clamp nut</p> <p>Clamp nut</p> <p>Grinding disc</p> <p>Disc flange</p> <p>Grinding disc guard</p> <p>Grinding disc guard fixing screw</p> <p>Make sure the side.</p>		<p>WARNING:</p> <p>To reduce the risk of injury, always remove battery pack before removing/installing the disc.</p> <ol style="list-style-type: none"> 1. Push the spindle lock button to secure the spindle in place, and then use the clamp nut wrench to loosen the clamp nut. 2. Remove the disc from the spindle and the disc flange. 3. Loosen the screw and remove the grinding disc guard.

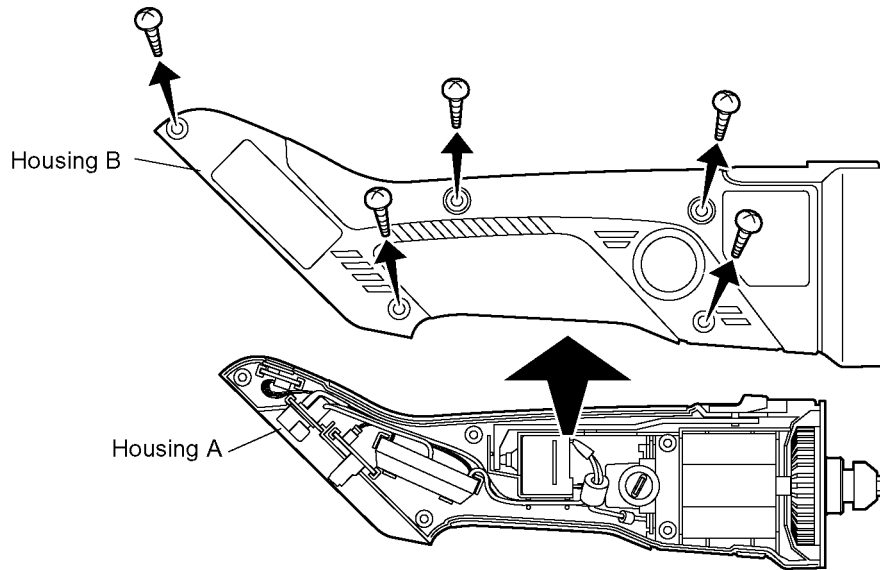
Ref. No. 1B	Procedure 1A → 1B	Removal of driving block.
<p>Main unit</p> <p>Screw</p> <p>Disk cover</p> <p>Gear case cover assembly</p> <p>Gear case assembly</p> <p>Screw</p>		<p>Removal of driving block.</p> <ol style="list-style-type: none"> 1. Loosen 4 screws and remove the disc cover. 2. Loosen a screw and remove the grinding disc guard. 3. Loosen 3 screws to remove the gear case assembly from the gear case cover assembly.

Ref. No. 1C

Procedure 1A → 1B → 1C

Removal of housing.

1. Loosen 5 housing screws.
2. Hold the housing A and take the housing B up vertically.

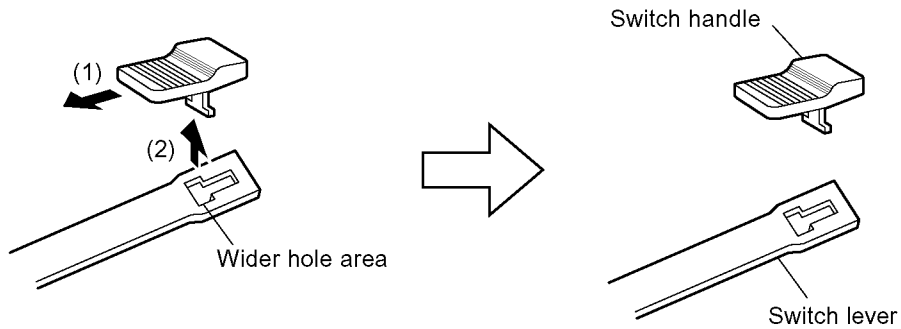


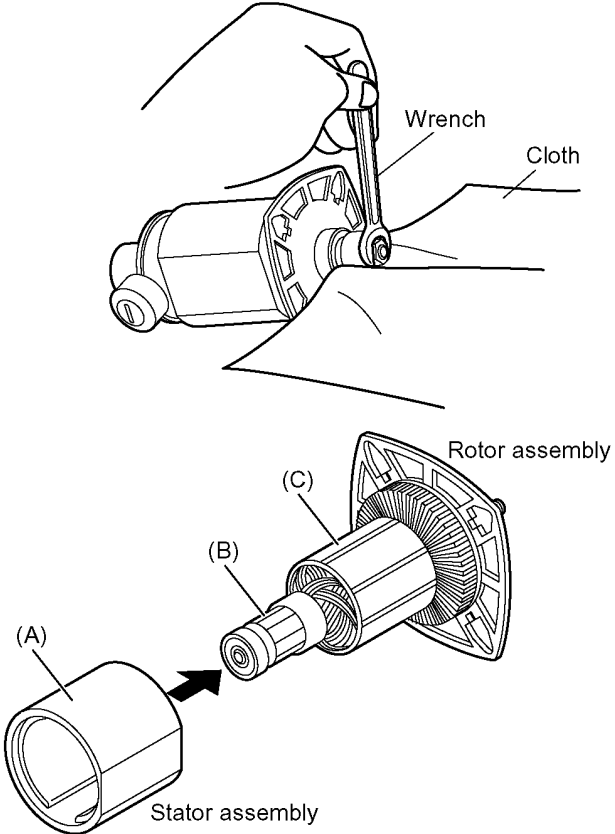
Ref. No. 1D

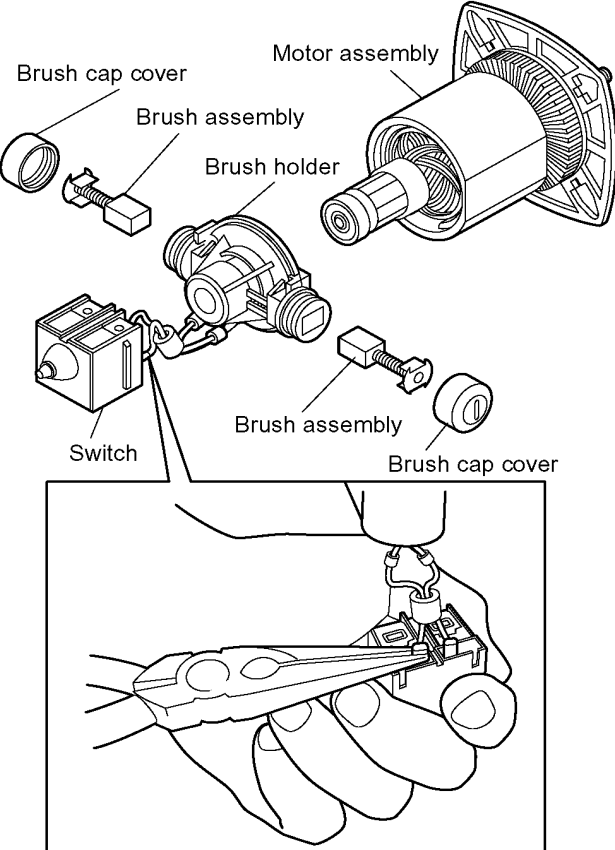
Procedure 1A → 1B → 1C → 1D

Removal of switch handle.

1. Slide the switch handle until the hook of switch handle comes to the wider hole area of switch lever.
2. Pull the switch handle up.



Ref. No. 1E	Procedure 1A → 1B → 1C → 1D → 1E	Removal of motor assembly.
		<ol style="list-style-type: none"> 1. Hold the pinion gear with vice putting a cloth between the unit and vice. 2. Loosen the hex nut by a wrench. 3. Take out the rotor assembly from the stator. <p>CHECK POINT</p> <ul style="list-style-type: none"> • Stator assembly <p>A: Check if there is no breakage of magnet and no metallic powder stuck around.</p> <ul style="list-style-type: none"> • Rotor assembly <p>B: Check if the commutator is worn out.</p> <p>C: Check if the coil changes the color (burn).</p>

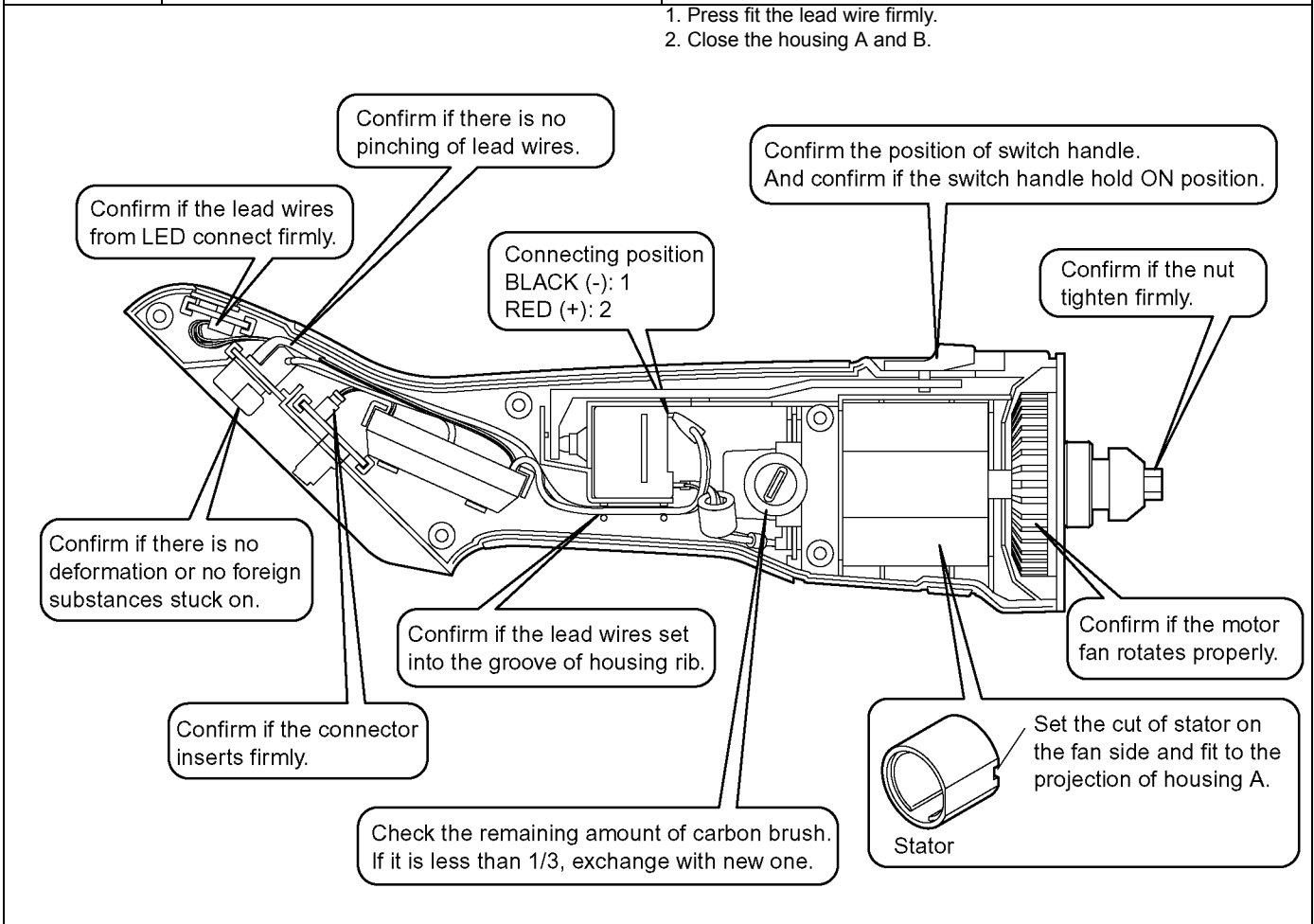
Ref. No. 1F	Procedure 1A → 1B → 1C → 1D → 1E → 1F	Removal of the brush assembly.
		<ol style="list-style-type: none"> 1. Remove the brush cap cover. 2. Take out the brush assembly. 3. Pull out the lead wires by holding the quick connection terminal from the switch.

Ref. No. 1G

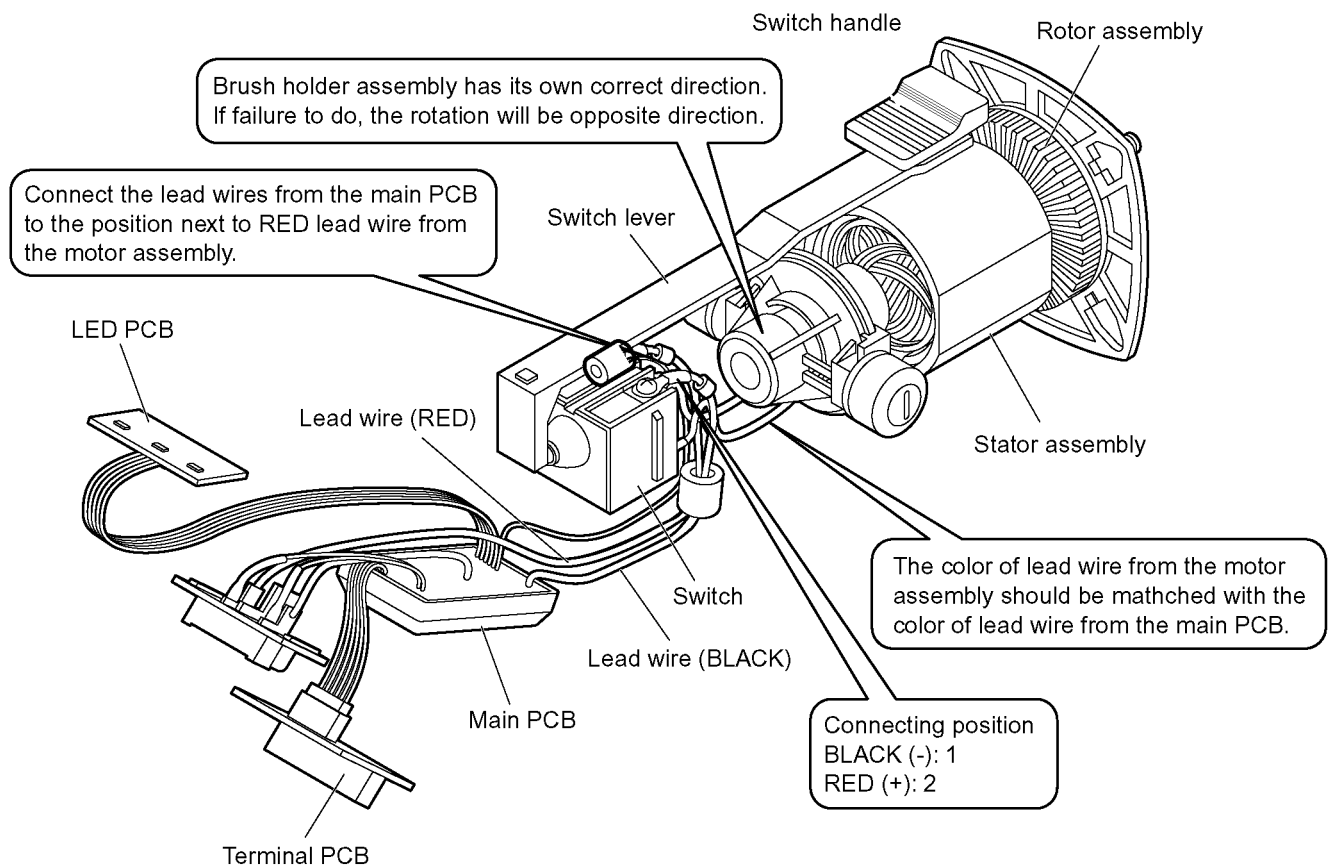
Procedure 1A → 1B → 1C → 1D → 1E → 1F → 1G

Assembly of main unit.

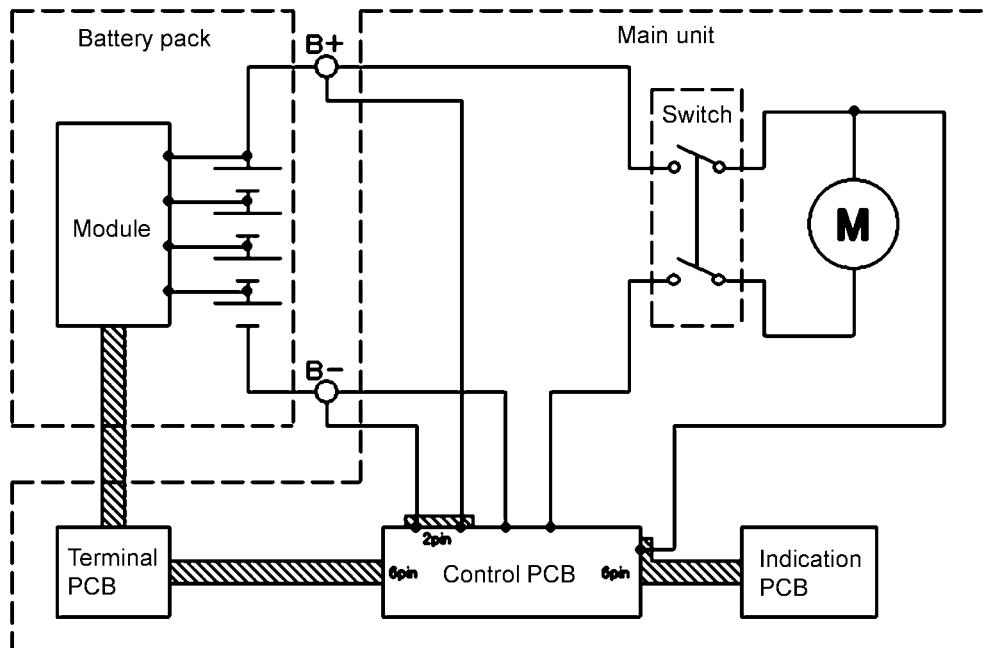
1. Press fit the lead wire firmly.
2. Close the housing A and B.



5 Wiring Connection Diagram

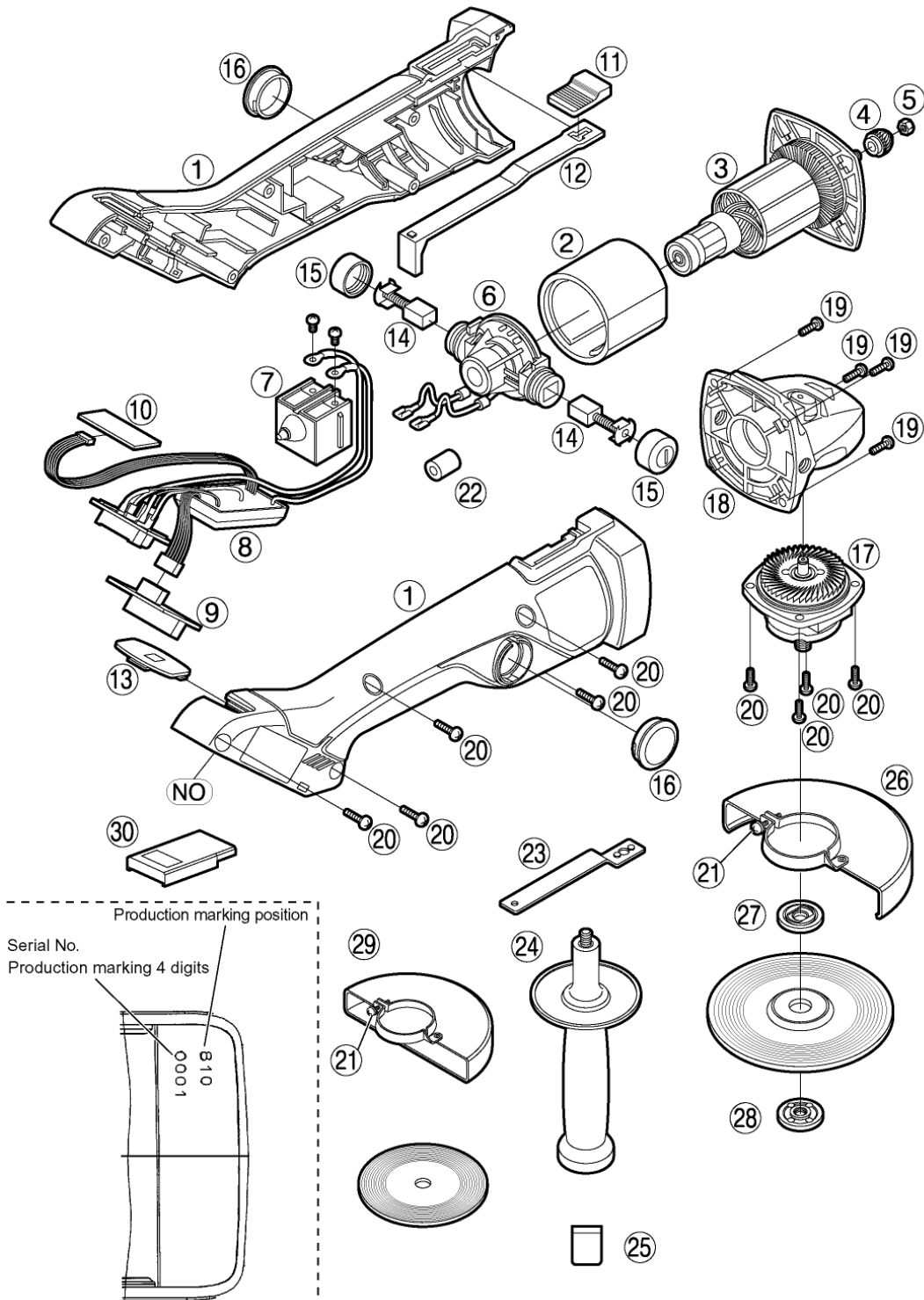


6 Schematic Diagram



7 Exploded View and Replacement Parts List

Model No. : EY4640 Exploded View



** Battery Pack is available as an optional accessory. See the nearest sales dealer for details.

*** For replacement parts of charger, see the charger service manual.

Charger complete set is available as an optional accessory. See the nearest sales dealer for details.

Model No. : EY4640 Parts List

Safety	Ref. No.	Part No.	Part Name & Description	Q'ty	Remarks
	1	WEY4640K3079	HOUSING AB SET	1	(for EUROPE)
	1	WEY4640K3070	HOUSING AB SET	1	(for OCEANIA)
	2	WEY4640L1587	STATOR ASSEMBLY	1	
	3	WEY4640L1007	ROTOR ASSEMBLY	1	
	4	WEY4640L1457	PINION GEAR	1	
	5	WEY4640L6427	HEX NUT	1	(M6), (5PCS/PK)
	6	WEY4640L1038	BRUSH HOLDER	1	
	7	WEY4640K2007	SWITCH ASSEMBLY	1	
	8	WEY4640L2127	MAIN PCB ASSEMBLY	1	
	9	WEY4640L2107	TERMINAL PCB ASSEMBLY	1	
	10	WEY4640L2137	LED PCB ASSEMBLY	1	
	11	WEY4640L2017	SWITCH HANDLE	1	
	12	WEY4640L2917	SWITCH LEVER	1	
	13	WEY4640L3588	INDICATION PANEL	1	
	14	WEYT510L2317	BRUSH ASSEMBLY	2	(2PCS/PK)
	15	WEY4640L3117	BRUSH CAP	2	(2PCS/PK)
	16	WEY4640K3107	BRUSH CAP COVER	2	(2PCS/PK)
	17	WEY4640L4127	GEAR CASE ASSEMBLY	1	
	18	WEY4640L4098	GEAR CASE COVER ASSEMBLY	1	
	19	WEY4640L9447	TIGHT SCREW	4	(5PCS/PK)
	20	WEYT510L9447	TIGHT SCREW	9	(5PCS/PK)
	21	WEY4640L6257	TIGHT SCREW	1	(M5*18)
	22	WEY4640L0208	FERRITE CORE	1	
	23	WEY4640S7868	DISC WRENCH	1	
	24	WEY4640K3237	SUPPORT HANDLE	1	
	25	WEY4640L8917	GREASE	1	
	26	WEY4640K1188	GRINDING DISC GUARD	1	
	27	WEY4640K1168	DISC FLANGE	1	
	28	WEY4640K1178	CLAMP NUT	1	
	29	WEY4640K1198	CUT-OFF DISC GUARD	1	
	30	WEY9L40R2788	BATTERY PACK COVER	1	
	-	WEY9639K7018	TOOL CASE	1	<SH>
	-	WEY4640K8109	OPERATING INSTRUCTIONS	1	<SH>