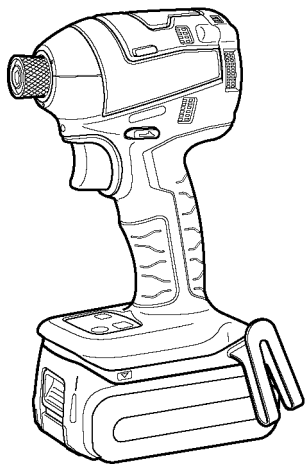


Service Manual

Cordless Impact Driver

Model No. **EY75A7**

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).

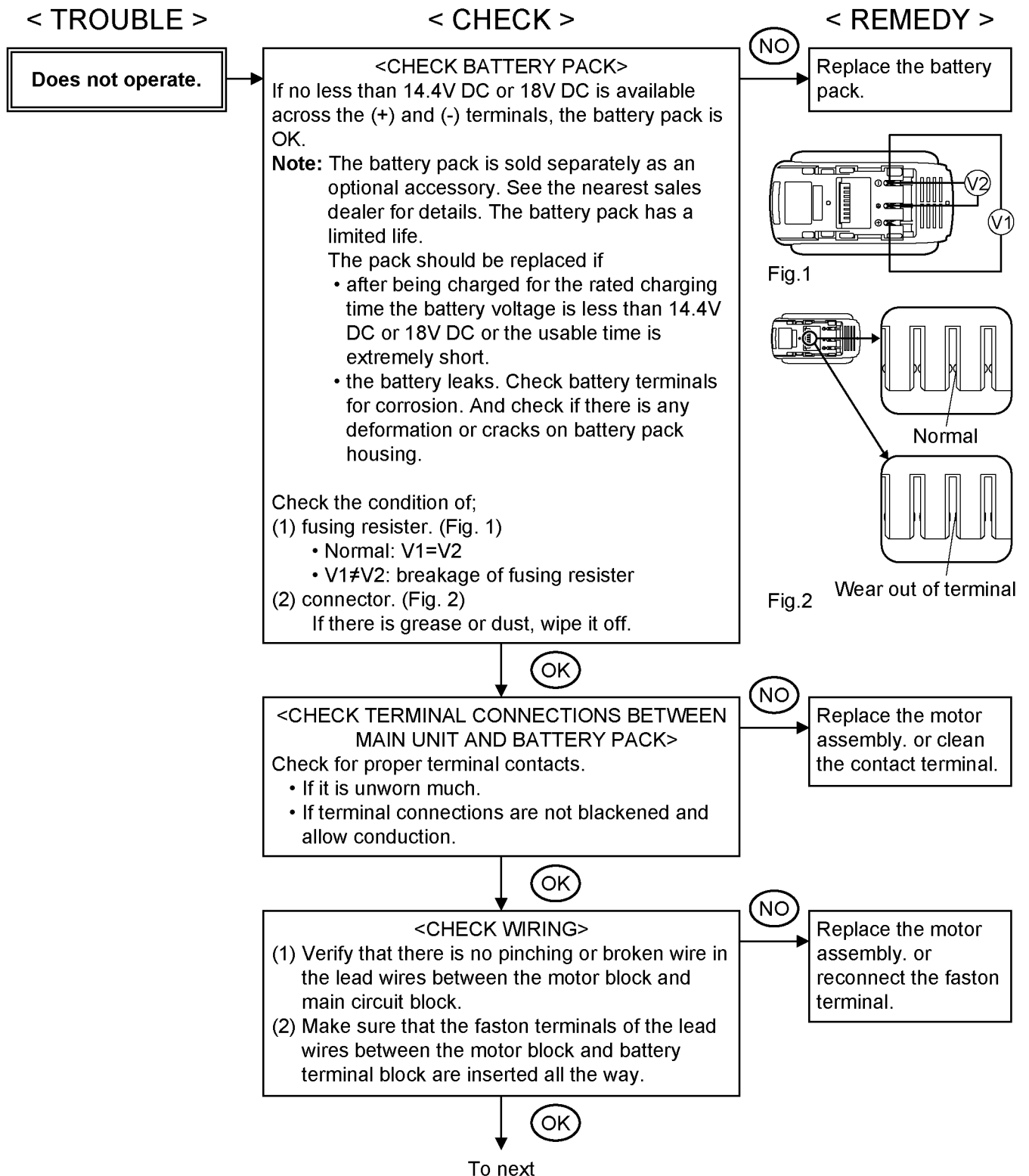
2 Specifications

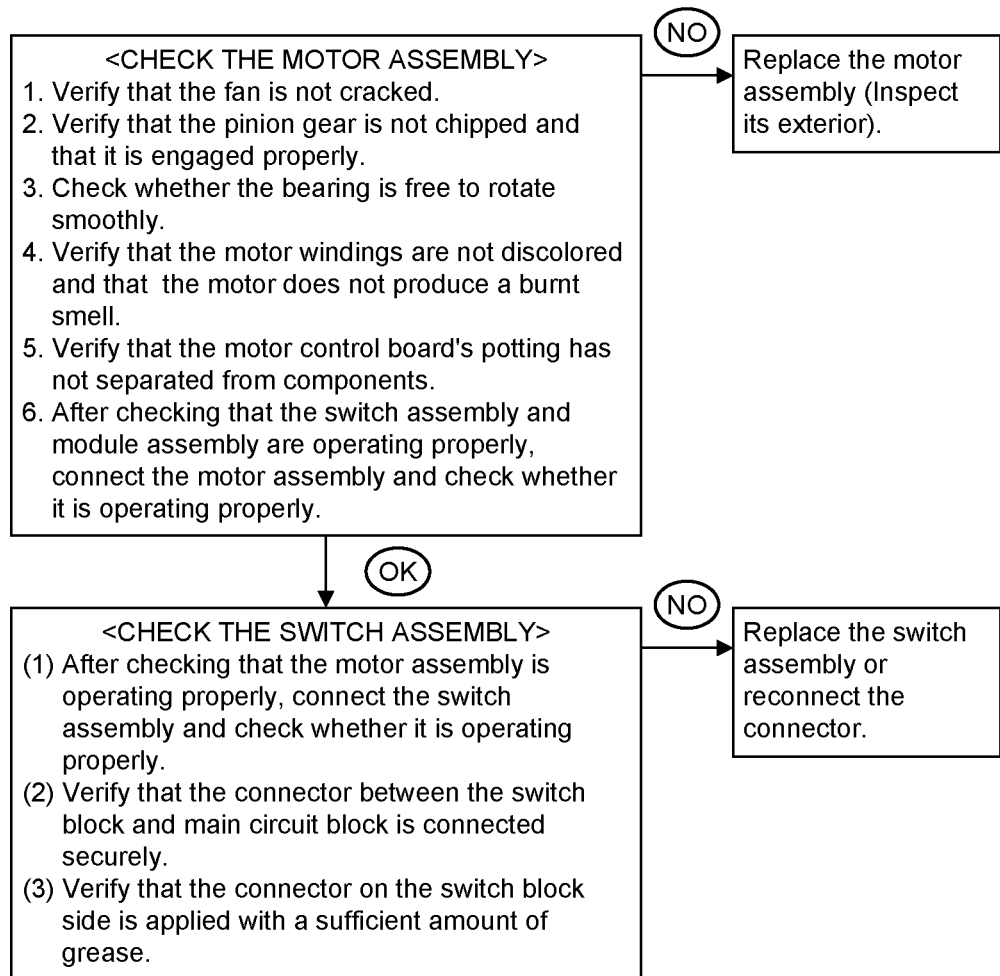
MAIN UNIT

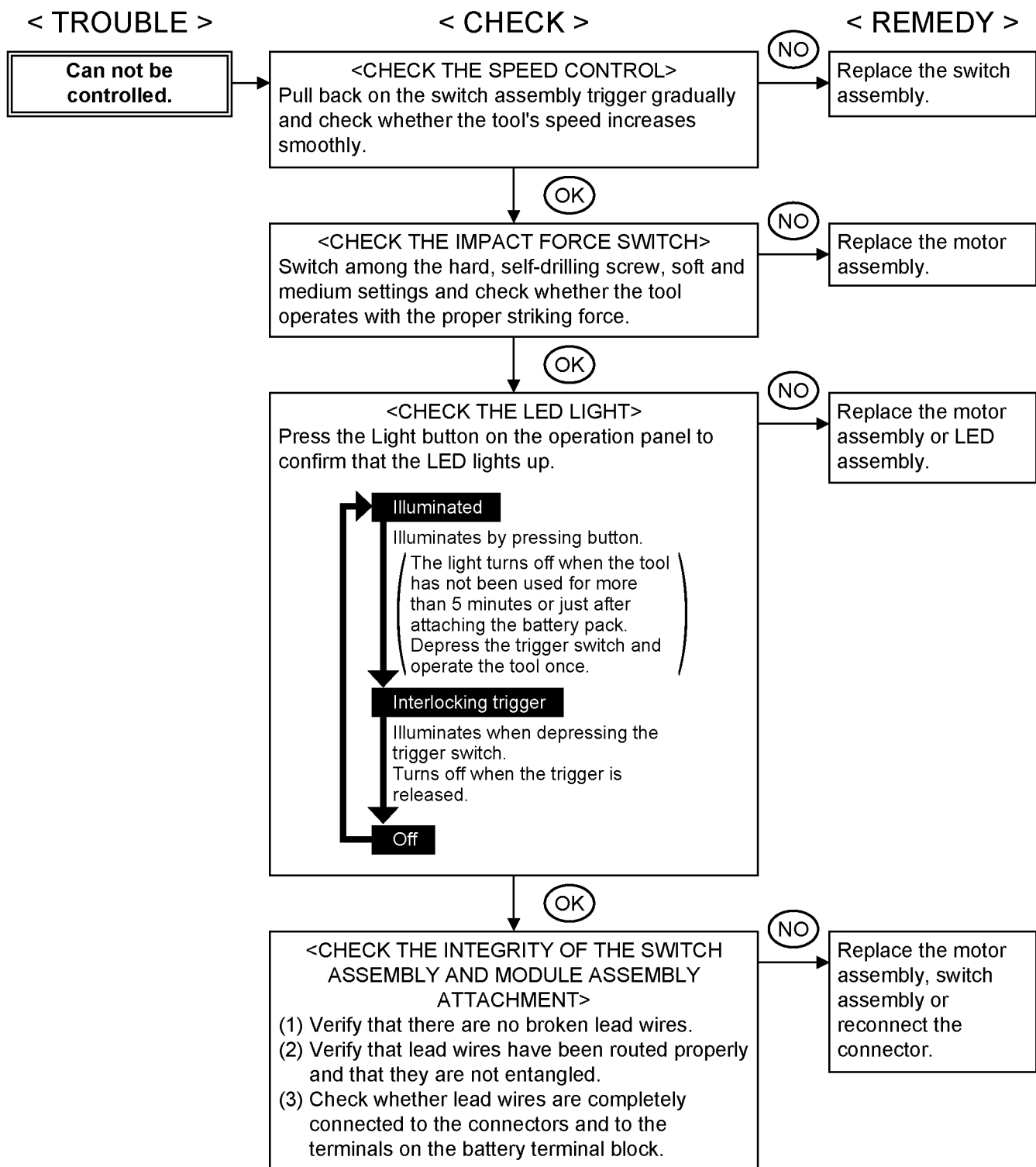
Model No.		EY75A7	
Motor voltage		14.4 V DC	18 V DC
No load speed	Soft mode	0 min ⁻¹ (rpm) – 950 min ⁻¹ (rpm)	
	Medium mode	0 min ⁻¹ (rpm) – 1450 min ⁻¹ (rpm)	
	Hard mode	0 min ⁻¹ (rpm) – 2500 min ⁻¹ (rpm)	
	Self-drilling screw mode	0 min ⁻¹ (rpm) – 2500 min ⁻¹ (rpm)	
Maximum torque		155 N•m	160 N•m
Impact per minute	Soft mode	0 min ⁻¹ (ipm) – 1900 min ⁻¹ (ipm)	
	Medium mode	0 min ⁻¹ (ipm) – 2900 min ⁻¹ (ipm)	
	Hard mode	0 min ⁻¹ (ipm) – 3100 min ⁻¹ (ipm)	
	Self-drilling screw mode	0 min ⁻¹ (ipm) – 1200 min ⁻¹ (ipm)	
Overall length		118 mm	
Weight	With battery pack: EY9L45	1.65 kg	—
	With battery pack: EY9L47	1.45 kg	—
	With battery pack: EY9L51	—	1.80 kg
	With battery pack: EY9L52	—	1.55 kg
	With battery pack: EY9L53	—	1.55 kg
	With battery pack: EY9L54	—	1.75 kg
Noise, Vibration		See the included sheet	

3 Troubleshooting Guide

3.1. Troubleshooting Guide







< TROUBLE >

The tool is not producing adequate impact force.

< CHECK >

< REMEDY >

* Before inspecting the anvil, inspect the battery pack and check the tool speed. Using a constant-voltage source, energize the tool with 14.4 V DC or 18 V DC and pull back on the trigger with the impact indicator set to high mode. Check whether the tool speed is between 0 and 2,500 rpm. IF the speed falls outside this range, inspect the, rotor, and stator and start the inspection after setting the tool speed between 0 and 2,500 rpm.

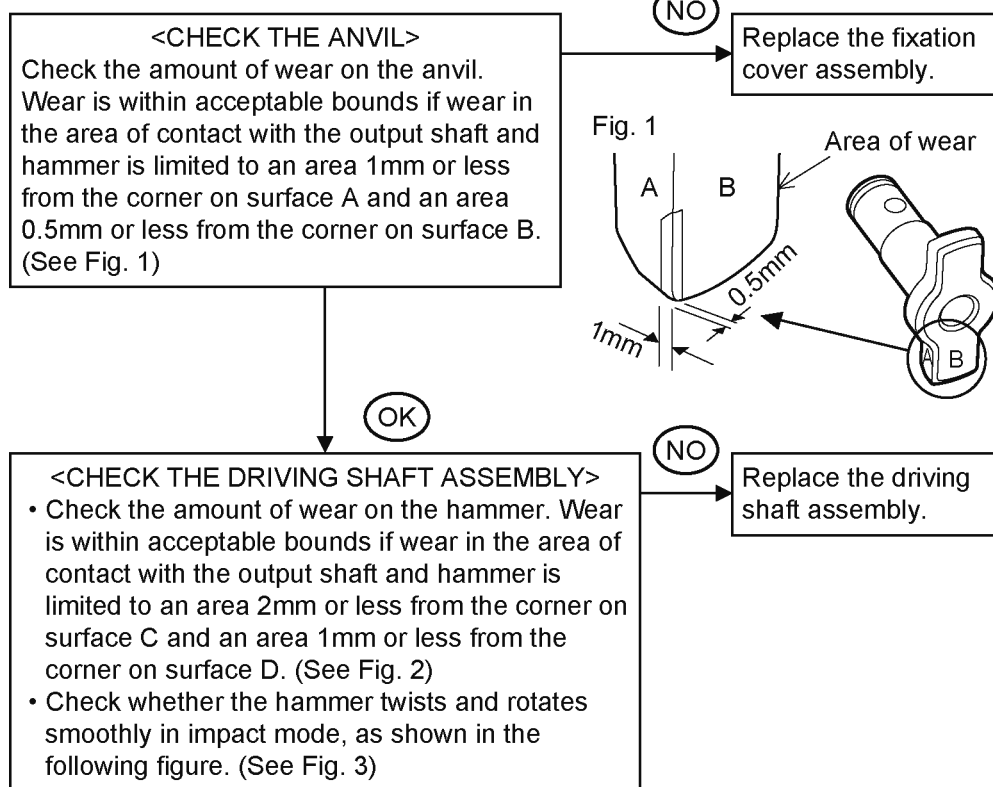


Fig. 2

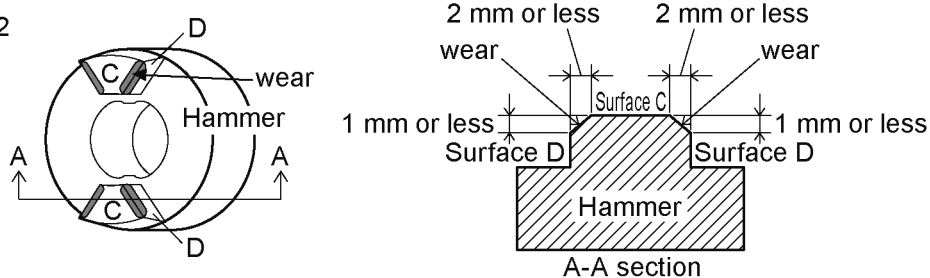
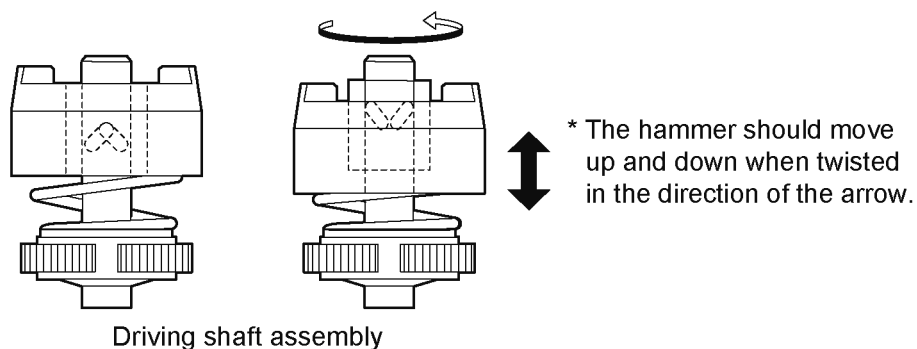


Fig. 3



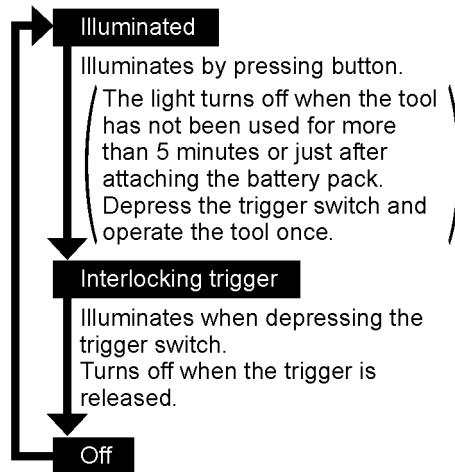
3.2. Trial Operation (after checking Troubleshooting Guide).

3.2.1. Assembly

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

3.2.2. Operation

- Check whether the tool operates properly in both the forward and reverse directions.
- Check whether the LED lights ON.



- Check whether the tool speed increases continuously as the trigger is gradually engaged.
- Check whether the tool speed is normal after repair and reassembly.
 - High mode: 0 to 2500 rpm.
 - Medium mode: 0 to 1450 rpm.
 - Low mode: 0 to 950 rpm.
 - Tex mode: 0 to 2500 rpm.
- Check whether the bit holder move smoothly and hold the bit firmly.
- Check whether the remaining battery power indicator lamp lights up or flashes when the Battery level button is pressed.

3.2.3. Integrity

- With the switch activated, shake the tool back and forth and up and down and verify that its sound does not change excessively.
- Check for the presence of any dirt or foreign matter from the repair process on the outside of the tool.

4 Disassembly and Assembly Instructions

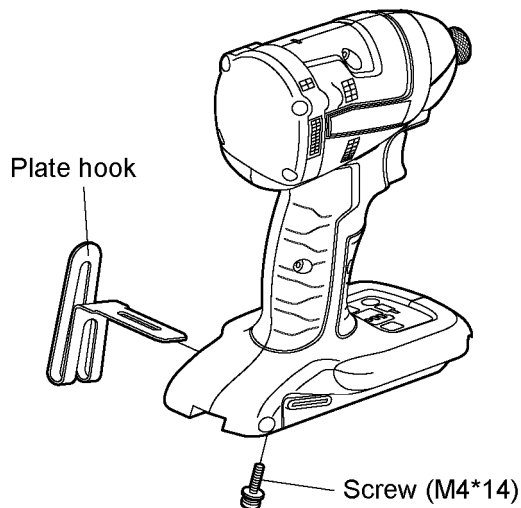
* To reduce the risk of injury, always remove battery pack before removing/installing the tool.

* To assemble the tool, start with 4-9 and proceed to 4-1

4.1. Removing the Housing.

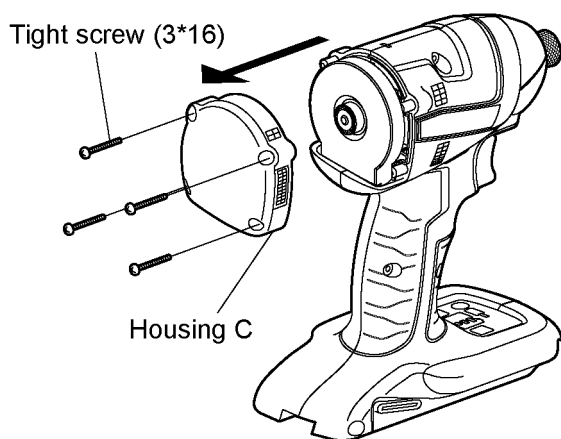
1. Remove the M4-14 screw.

2. Remove the plate hook.



3. Remove four screws.

4. Remove the housing C.



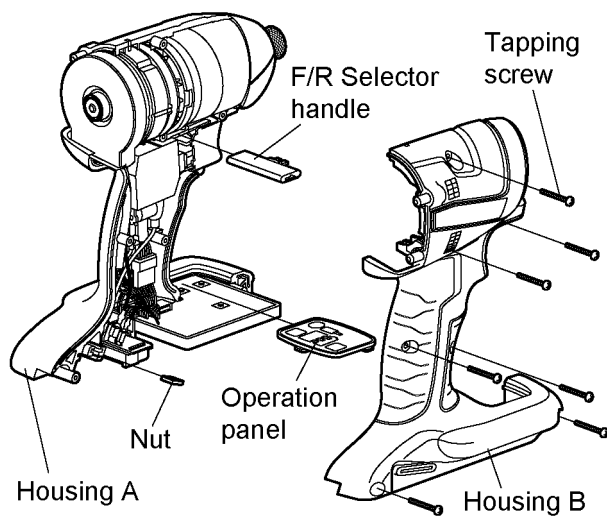
5. Remove seven tapping screws.

6. Remove the housing B.

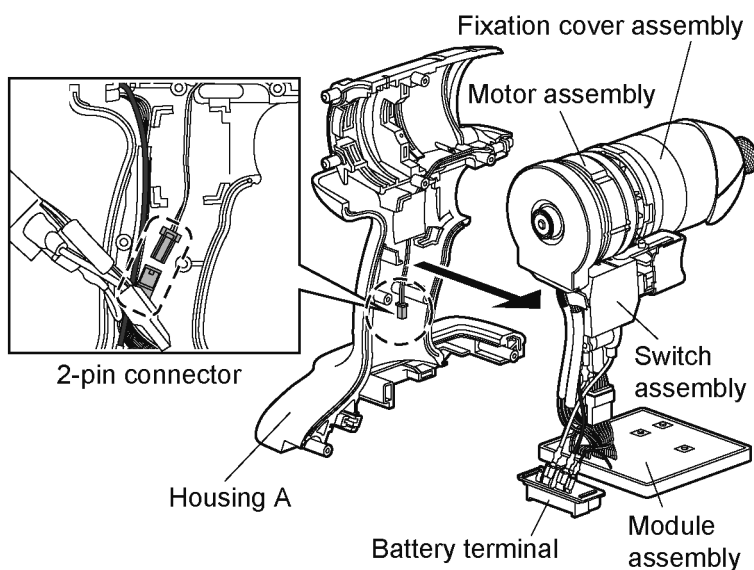
7. Remove the F/R selector handle.

8. Remove the operation panel.

9. Remove the nut.



4.2. Removing the interior components.

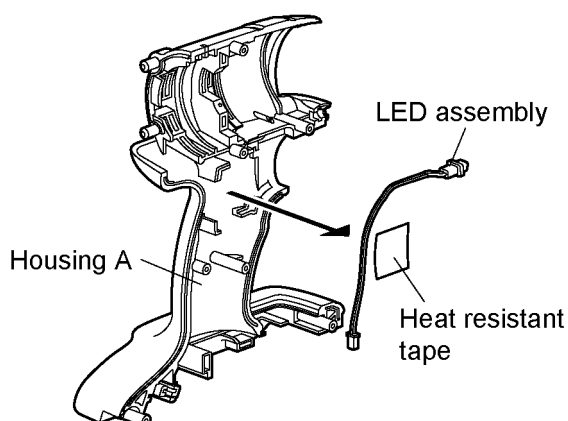


1. Disconnect the LED assembly 2-pin connector from the module assembly.

* Precautions when attaching the 2-pin connector.
Check whether the claw on the connector is engaged securely with the mating side.

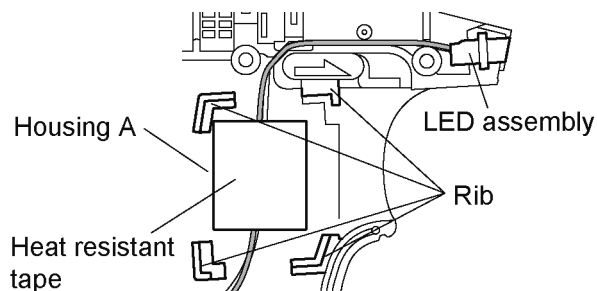
2. Remove the interior components from the housing A.

4.3. Removing the LED assembly from the housing A.

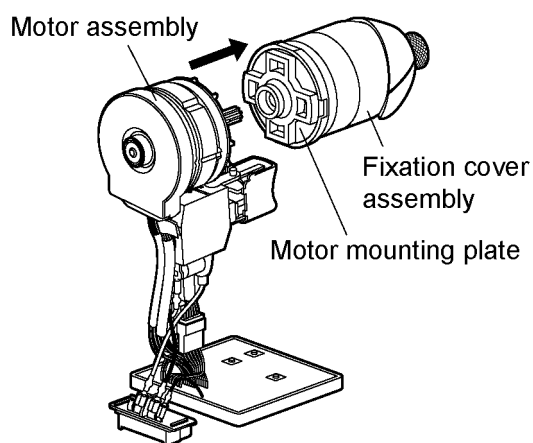


Remove the heat resistant tape and then remove the LED assembly from the housing A.

* Precautions when securing LED assembly in place using heat resistant tape.
Attach the heat resistant tape at the location shown in the figure below.

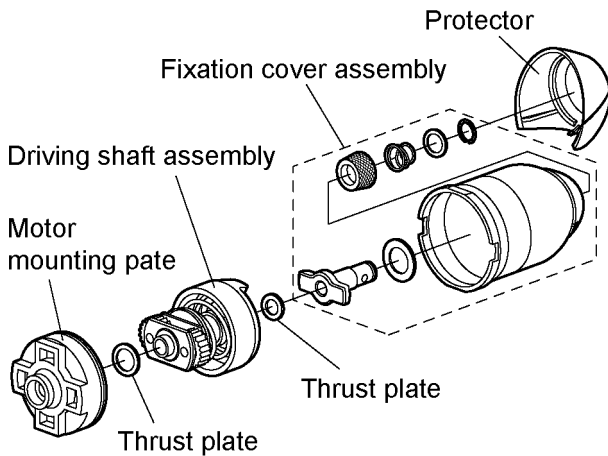


4.4. Removing the Fixation cover assembly from the motor assembly.



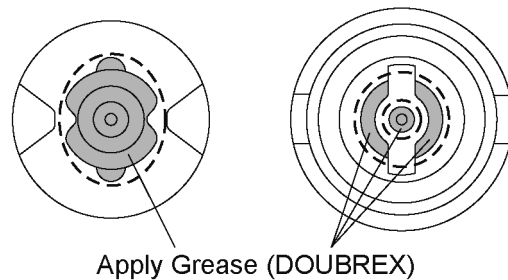
Holding the motor assembly, remove the fixation cover assembly, including the motor mounting plate from the motor assembly.

4.5. Removing the Fixation cover assembly, driving shaft assembly and motor mounting plate.

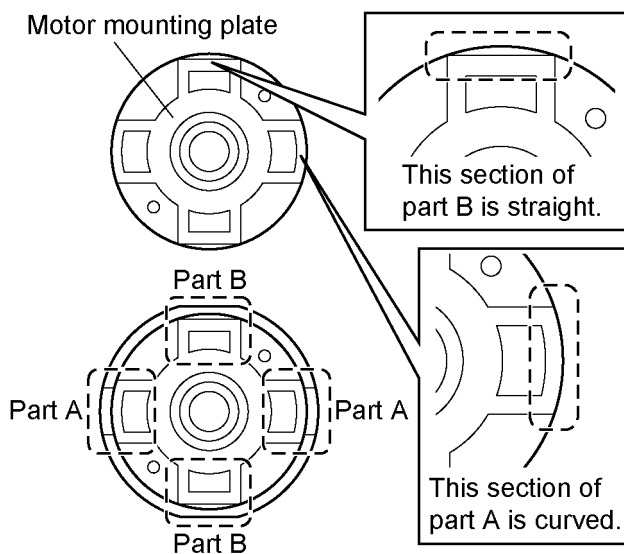


1. Remove the motor mounting plate.
2. Remove the thrust plate from the driving shaft assembly from the fixation cover assembly.
3. Remove the thrust plate from the fixation cover assembly.
4. Remove the protector from the fixation cover assembly.

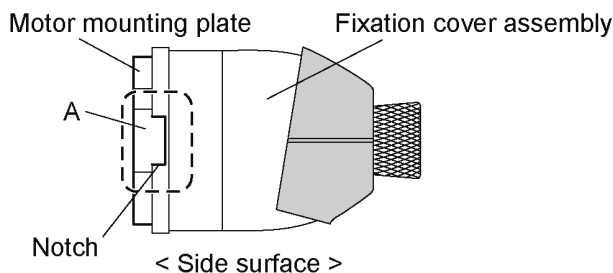
* Precautions when attaching the protector, anvil and hammer.
Peel off the backing paper from the double-sided adhesive tape on the back side of the protector, and mount the protector to the fixation cover assembly.



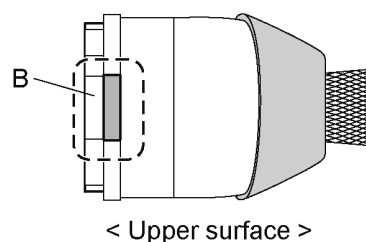
4.6. Precautions when assembling the motor mounting plate and fixation cover assembly.



Note that the motor mounting plate must be installed in correct direction as shown in the diagram at the left. Make sure it is installed correctly.

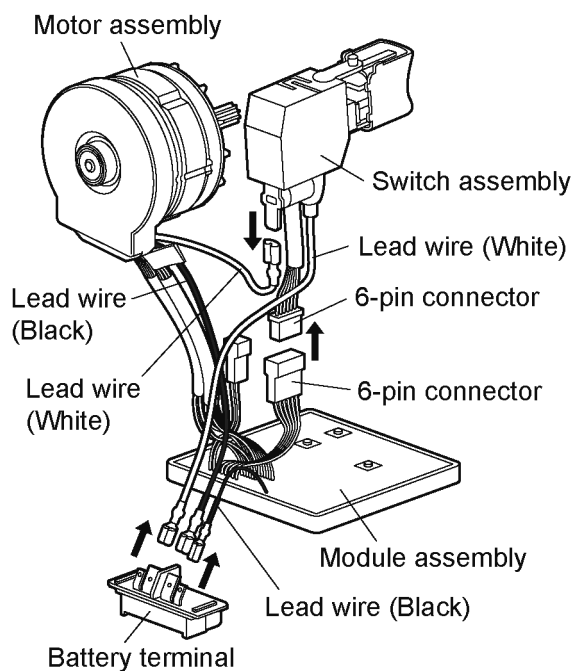


Align part A (curved section) of the motor mounting plate with the center of the notch on the fixation cover assembly.

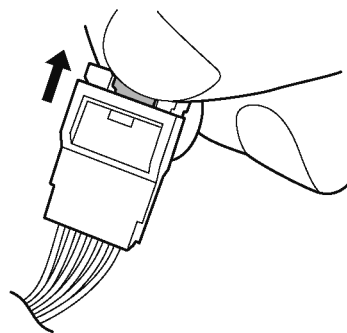


Align part B (straight section) of the motor mounting plate with the center of the straight section of the fixation cover assembly.

4.7. Removing the module assembly, switch assembly and battery terminal.

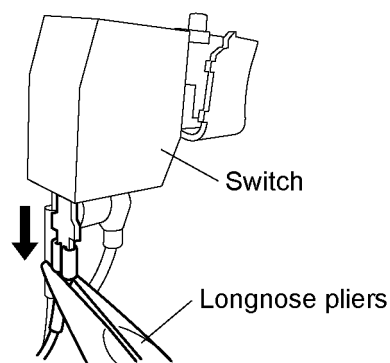


1. Disconnect the switch's 6-pin connector from the module assembly.

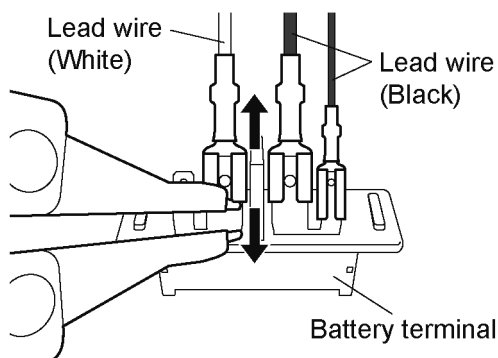


2. Pull the faston terminal directly out from the switch assembly.

* Exercise care not to bend the terminal fitting.

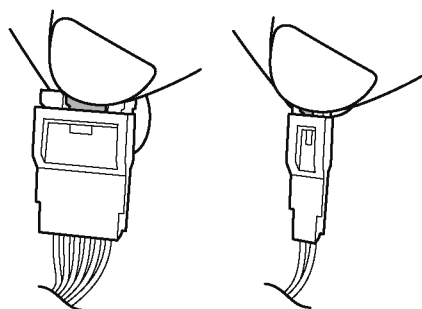


3. Remove the lead wires from the battery terminal.

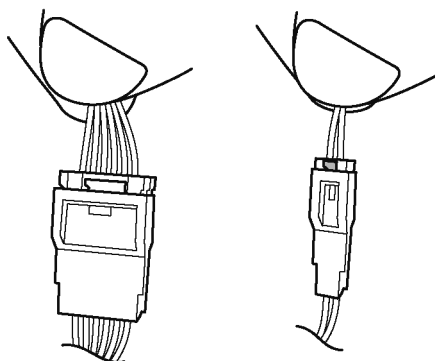


Connecting and disconnecting the connector

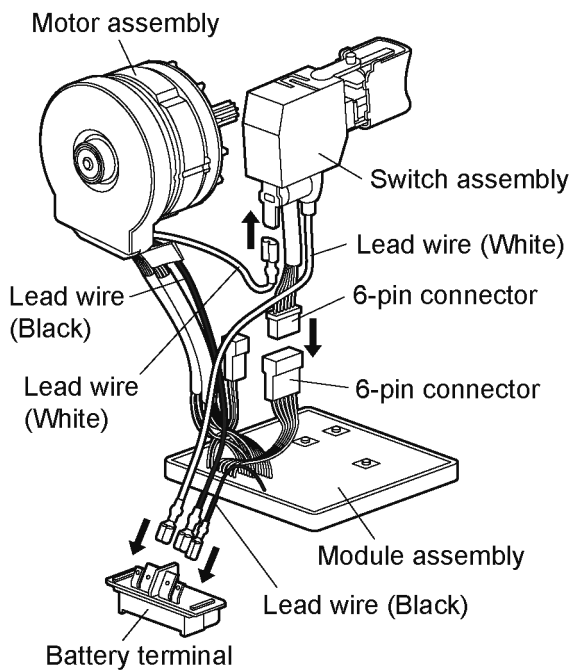
○ Press the claw on the connector to disconnect.



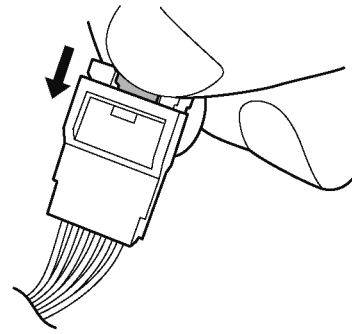
✗ Pulling on the lead wires will break the wires.



4.8. Inserting the module assembly, switch assembly and battery terminal.

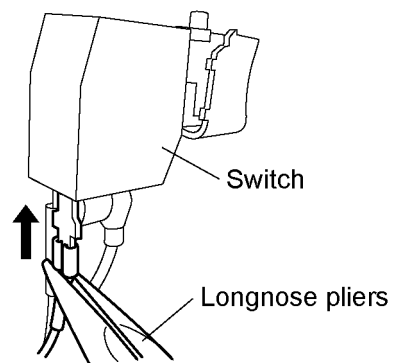


1. Connect the switch's 6-pin connector from the module assembly.



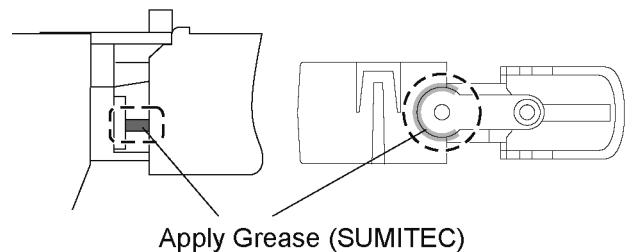
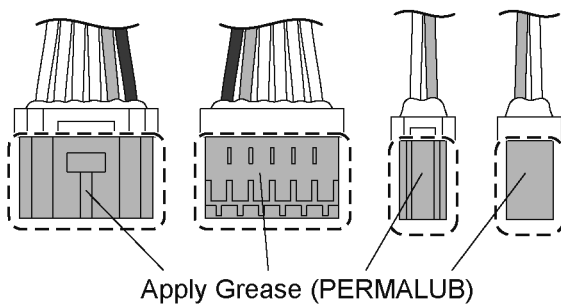
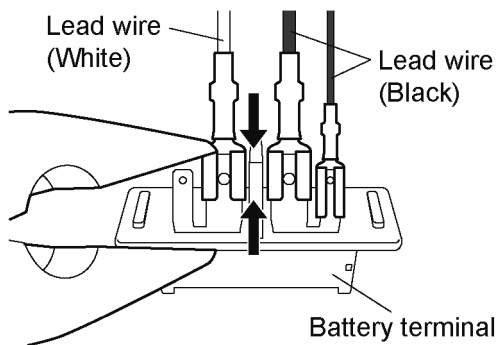
2. Attach the faston terminal.

* Exercise care not to bend the terminal fitting.

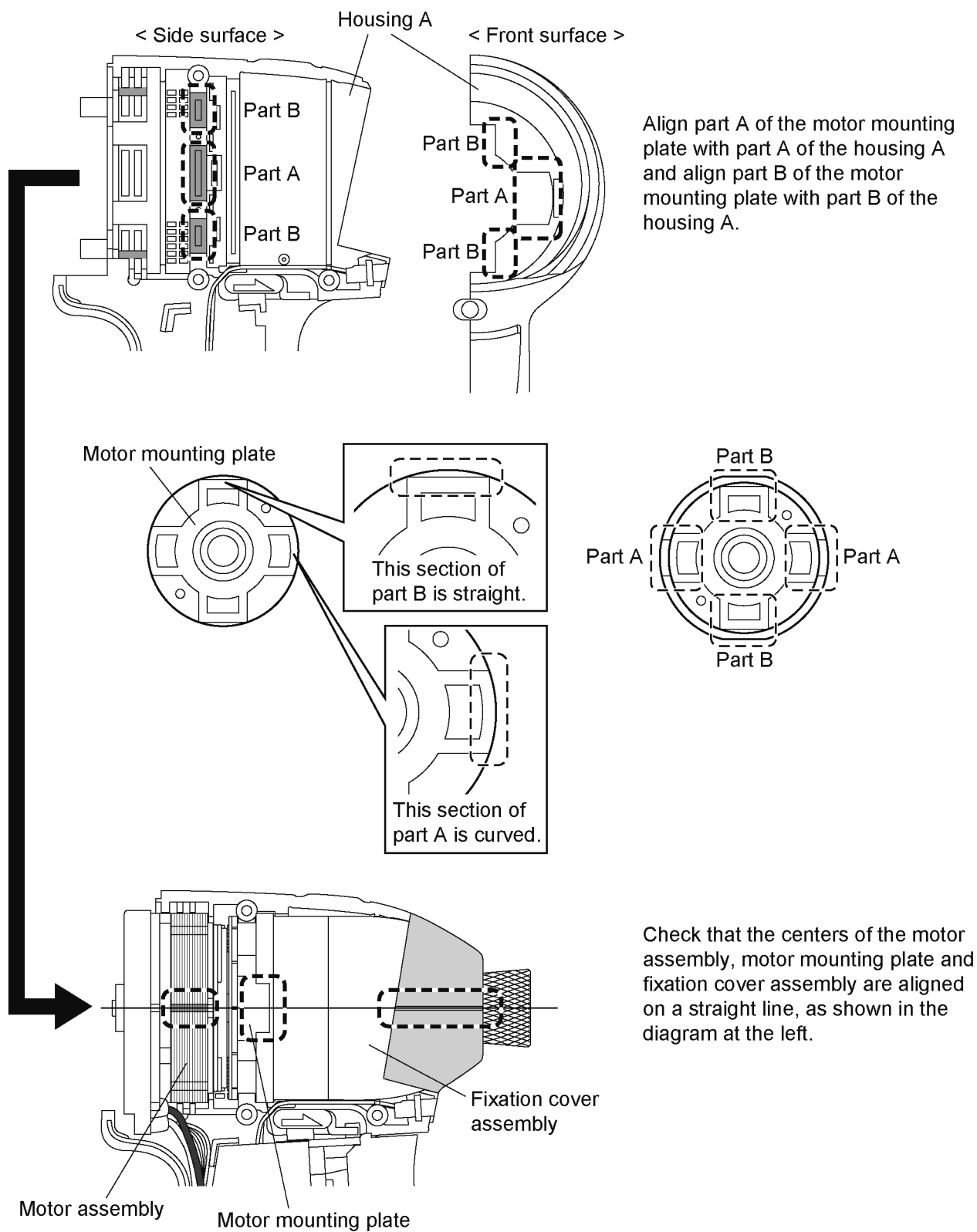


3. Insert the lead wires.

NOTE:
Make sure to pull out straight away.



4.9. Attaching the module assembly and fixation cover assembly from the housing A.



4.10. Wiring and assembly points.

Check housing C for secure engagement and absence of scratches and other damage.

Verify that the rotor fan is not cracked, chipped, or otherwise burnt or damaged.

Verify that the stator winding is not discolored or burnt and that the coil wires have not come undone.

Check the potting on the entire control board for absence of peeling, tearing and other damage.

Install the protector after tightening the screws on housing B.

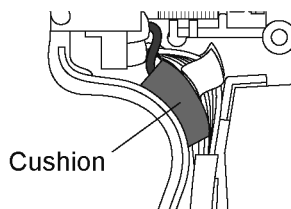
Make sure that the bit holder moves smoothly when pulled and that the anvil rotates smoothly.

Verify that the LED assembly has been inserted.

Verify that the rotation direction switching section of the switch and the trigger pin are applied with grease.

Verify that the grease has been applied to the connectors.

Verify that the module assembly has been placed on the housing rib.



After processing the lead wires, mount the cushion on top of the motor lead wires (black, white) and the lead wires with a 6-pin connector.

Make sure that the motor lead wires (black, white) are firmly pressed by the cushion.

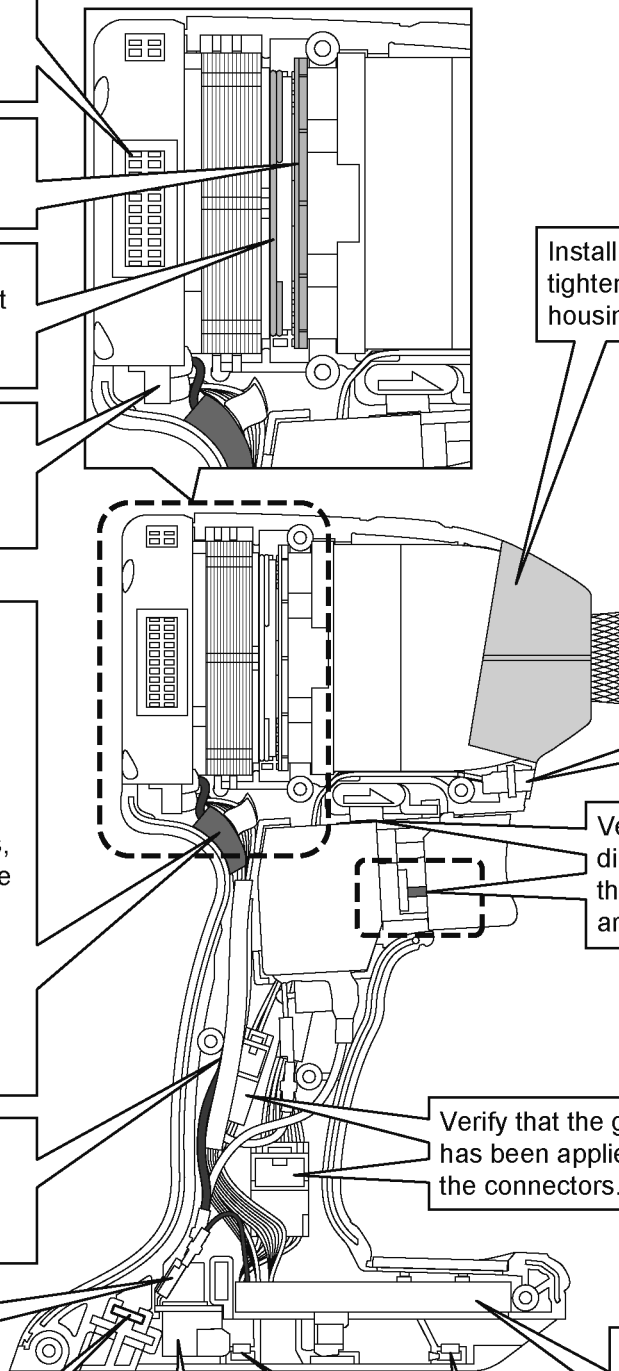
Position the tubes as close to the motor side as possible to enable easy processing of the lead wires.

Insert the faston terminal straight without twisting it.

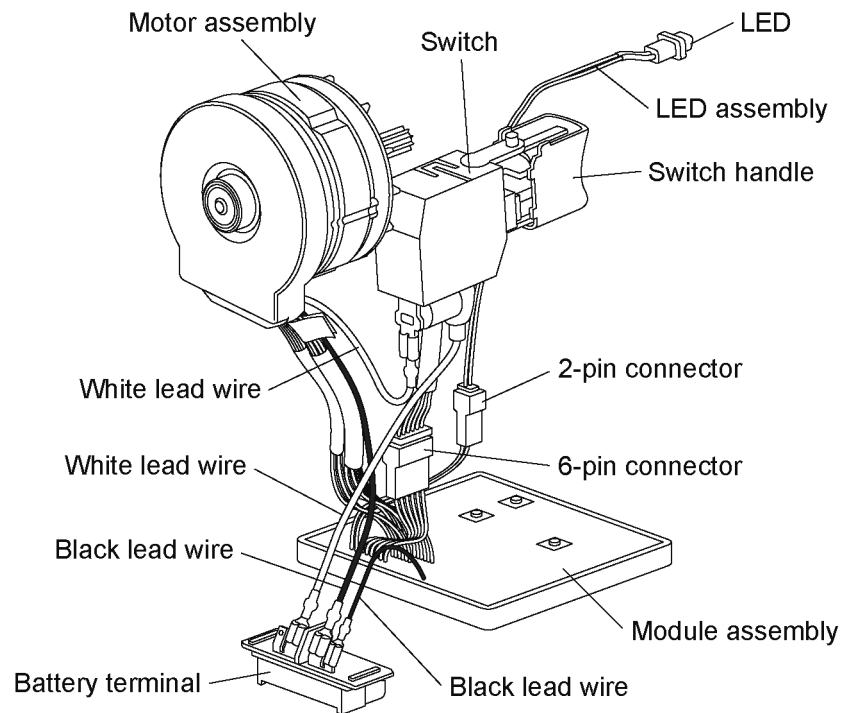
Verify that the M4 square nut has been inserted.

Verify that the battery terminal block has been placed on the housing.

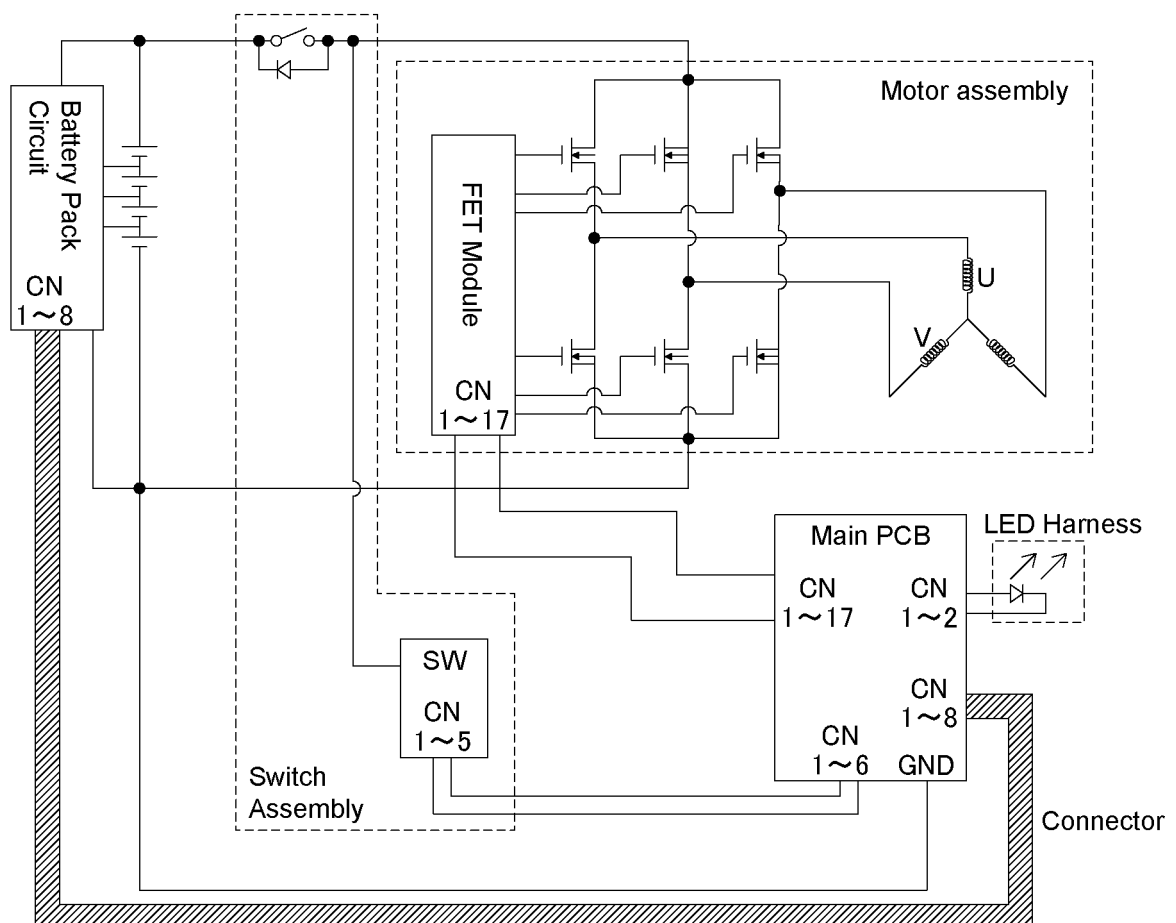
Verify that the six clips have been inserted into housing A and B.



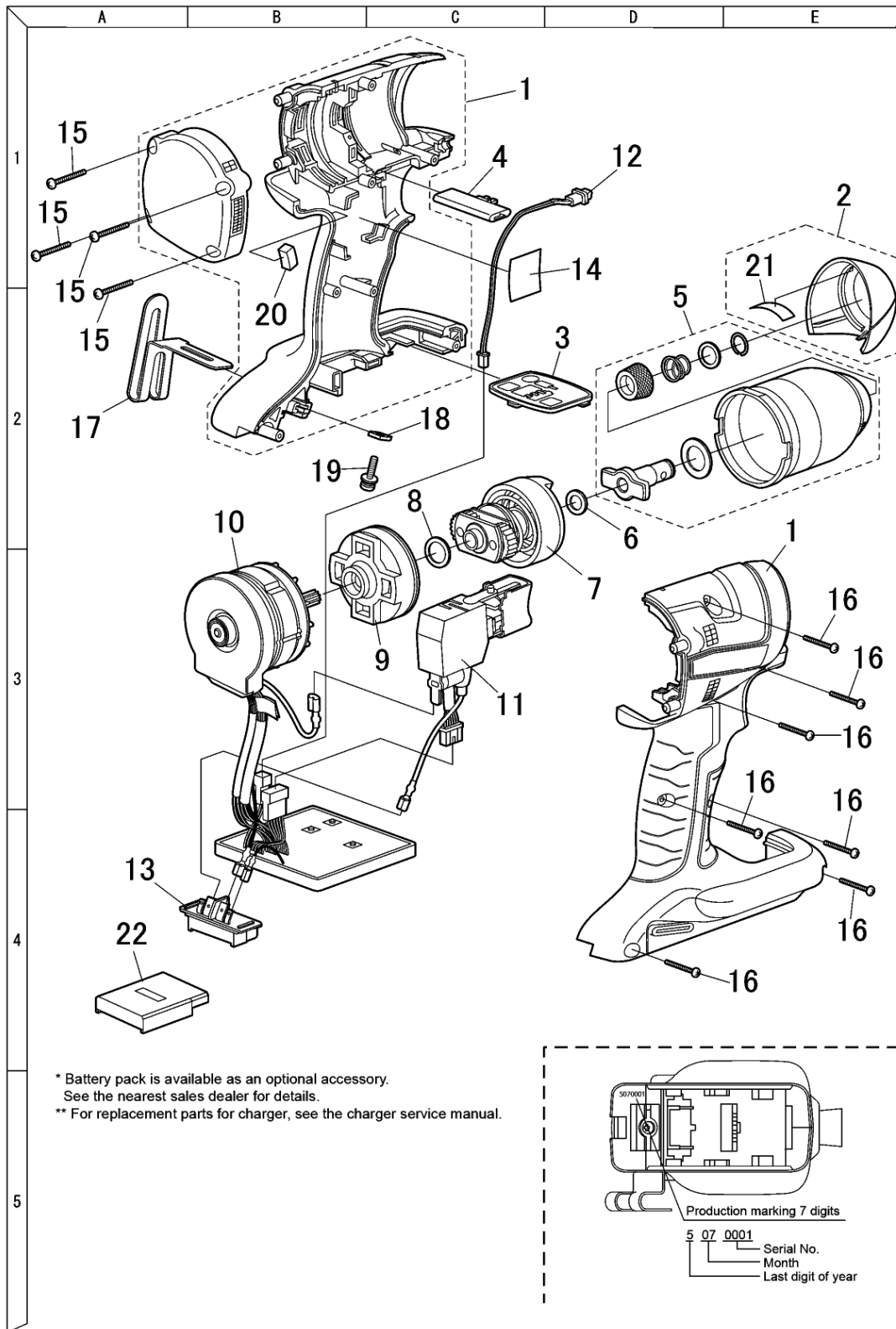
5 Wiring Connection Diagram



6 Schematic Diagram



Model No. : EY75A7 Exploded View



Model No. : EY75A7 Parts List

Change	Safety	Ref. No.	Part No.	Part Name & Description	Q'ty	Remarks
		1	WEY75A7K3079	HOUSING ABC SET	1	(For EUROPE)
		1	WEY75A7K3070	HOUSING ABC SET	1	(For OCEANIA)
		2	WEY75A7K3107	PROTECTOR	1	
		3	WEY75A7K3958	OPERATION PLATE	1	
		4	WEY75A7H3247	F/R SELECTOR HANDLE	1	
		5	WEY75A7S4058	FIXATION COVER ASSEMBLY	1	
		6	WEY75A7K0847	THRUST PLATE	1	
		7	WEY75A7S1157	DRIVING SHAFT ASSEMBLY	1	
		8	WEY75A7K0857	THRUST PLATE	1	
		9	WEY75A7L0027	MOTOR MOUNTING PLATE ASSEMBLY	1	
		10	WEY75A7L1008	MOTOR ASSEMBLY	1	
		11	WEY75A7K2008	SWITCH ASSEMBLY	1	
		12	WEY75A7L2337	LED ASSEMBLY	1	
		13	WEY75A7K2157	BATTERY TERMINAL ASSEMBLY	1	
		14	WEY7443W0957	HEAT RESISTANT TAPE	1	(30m/roll)
		15	WEY75A7K9037	TIGHT SCREW	4	(3*16)
		16	WEY6230K9216	TORX TAPPING SCREW	8	(K3-20)
		17	WEY7543K3187	PLATE HOOK	1	
		18	WEY7441L6487	NUT	1	(M4)
		19	WEY7441K6217	SCREW	1	(4-14)
		20	WEY75A7K0637	CUSION	1	
		21	WEY75A7L8397	DOUBLE SIDED TAPE	1	
		22	WEY9L40R2788	BATTERY PACK COVER	1	
		-	WEY9644K7019	TOOL CASE	1	
		-	WEY75A7K8109	OPERATING INSTRUCTIONS	1	
		-	WEY003W8957	GREASE (PERMALUB)	1	
		-	WEY002X8977	GREASE (DOUBREX)	1	
		-	WEY004X8967	GREASE (CALFOREX)	1	
		-	WEY7543X5517	GREASE (SUMITEC)	1	