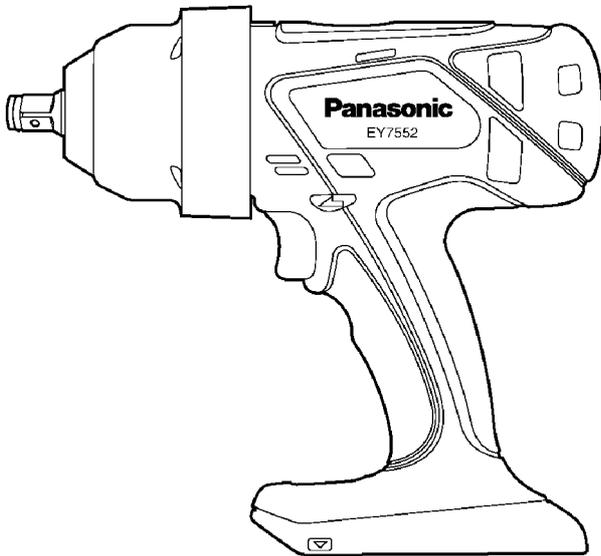


Service Manual

Cordless Impact Wrench

Model No. **EY7552**

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

2.1 Main Unit

Model	EY7552
Motor voltage	18 V DC
No load speed	0 - 1550 min ⁻¹
Maximum torque	470 N·m
Impact per minute	0 - 2400 min ⁻¹
Overall length	214 mm
Weight (with battery pack: EY9L50)	2.6 kg
Weight (with battery pack: EY9L51)	
Noise, Vibration	Typical Noise Emission Values according to EN 60745; Sound Pressure Level (L _{pA}); 98 dB (A) Sound Power Level (L _{WA}); 109 dB (re 1pw) Uncertainty (K): 3 dB Typical Vibration according to EN 60745; 14.84 m/s ² Uncertainty (K): 1.5 m/s ²

Battery Pack

Model	EY9L50	EY9L51
Storage battery	Li-ion Battery	
Battery voltage	18 V DC (3.6 V x 10 cells)	

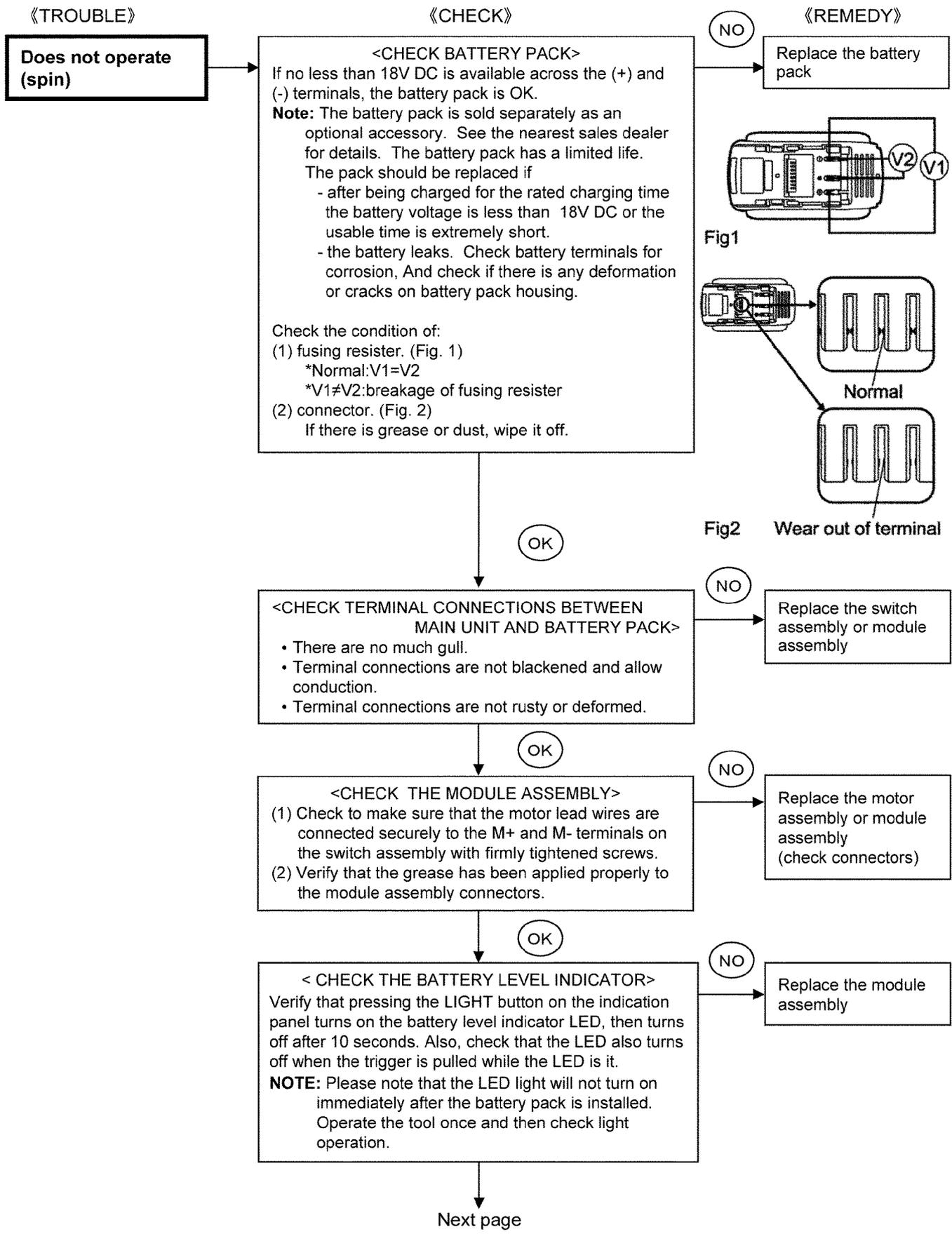
2.2 MAXIMUM RECOMMENDED CAPACITIES

Model	EY7552
Bolt fastening	Standard bolt : M12 - M20 High tensile bolt : M12 - M18

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 whether the tool operates properly in both the forward and reverse directions.
- Press the BATTERY LEVEL INDICATOR ON button, and confirm that the LED turns on, then turns off after 10 seconds. Also, check that the LED turns off when the trigger is pulled while the LED is lit.
- Check whether the tool speed increases continuously as the trigger is gradually engaged.
- Check whether the tool speed is normal after repair and reassembly.
Rotating speed: 0 to 1350 rpm
- Check whether the tool becomes hot in a short operation.
- Check whether impact operation functions properly.
Apply impact to an M16 or M20 bolt, and confirm that the impact operation functions properly.

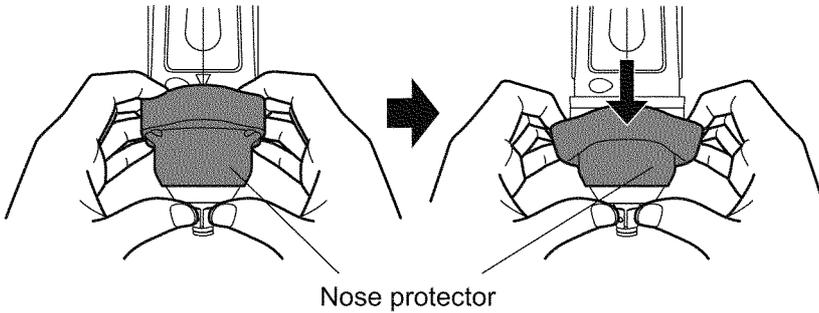
3.2.3. Integrity

- 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.

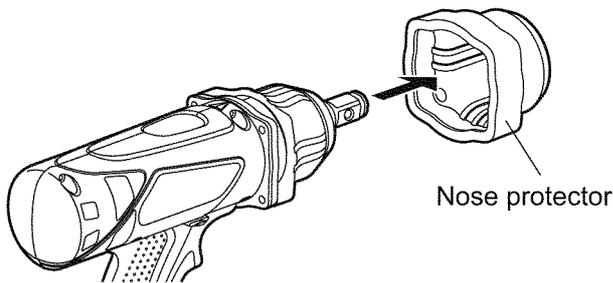
4 Disassembly and Assembly Instructions

*To assemble the tool, start with 4.10 and proceed to 4.1

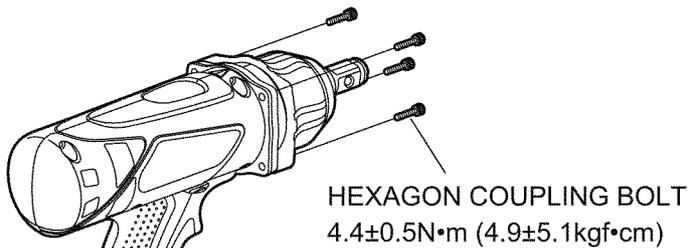
4.1. How to remove the housing B



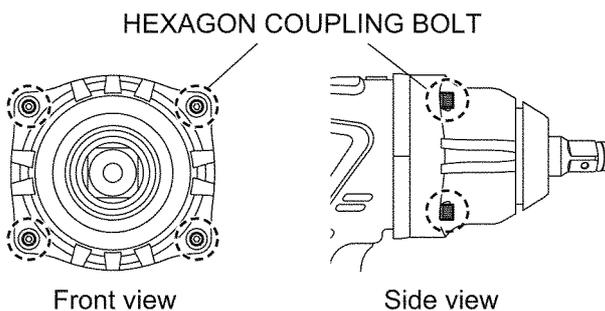
1. Hold the nose protector at the four corners with both hands.



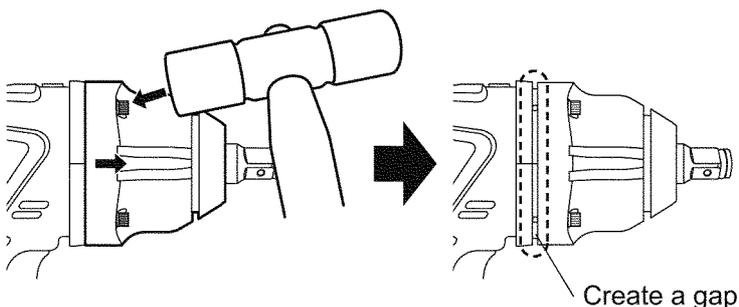
2. Remove the nose protector by raising its four corners using both hands.



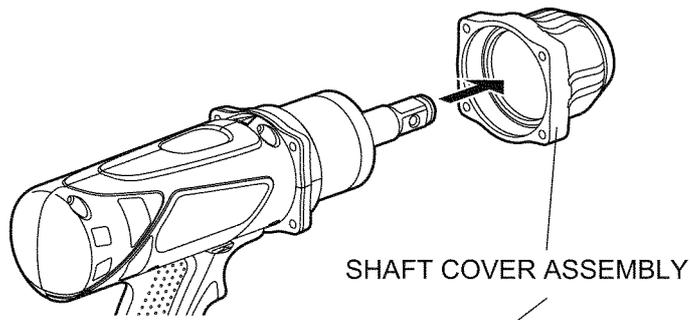
3. Remove four hexagon coupling bolts.



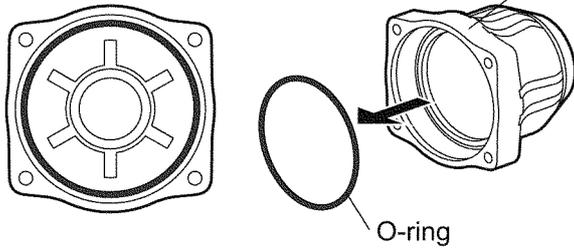
4. Insert the removed hexagon coupling bolts into the screw holes of the shaft cover assembly again.



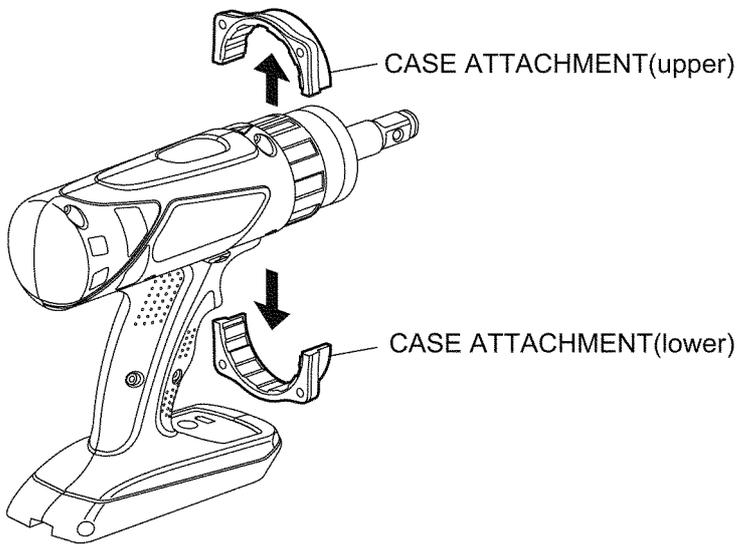
5. Using a plastic hammer, lightly hit the four hexagon coupling bolts inserted in the screw holes three or four times to create a gap between the shaft cover assembly and case attachment.



6. When a gap is created, remove the hexagon coupling bolts, and dismount the shaft cover assembly.

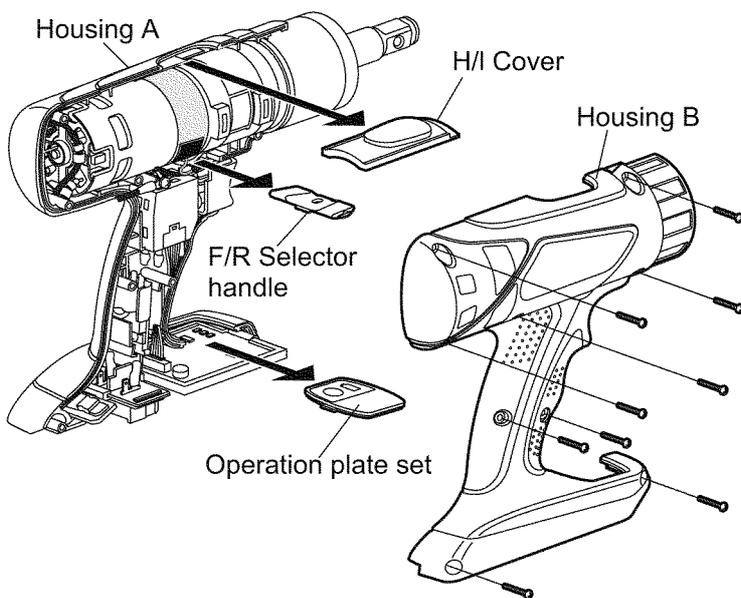


7. Remove the o-ring from shaft cover assembly.



8. Remove the case attachment (upper and lower sections).

*When replacing the case attachment, replace both upper and lower parts at the same time.



9. Remove nine screws.

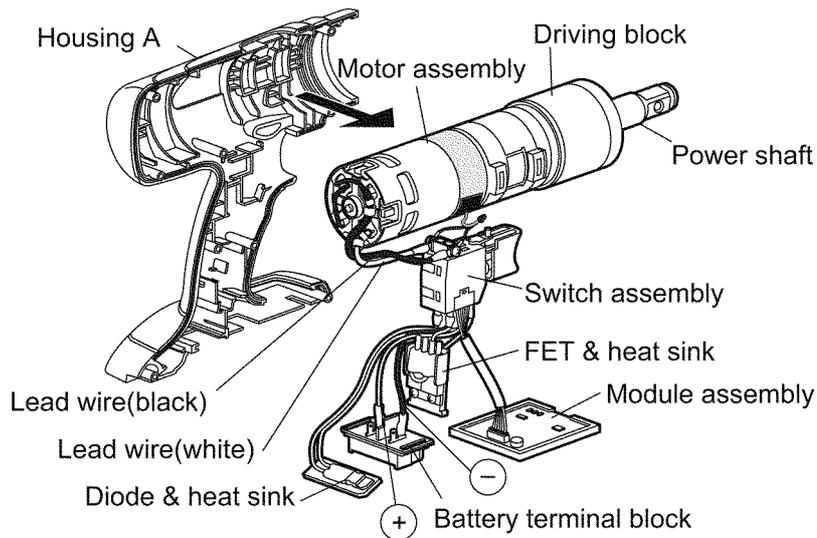
10. Remove housing B.

11. Remove H/L cover.

12. Remove operation plate set.

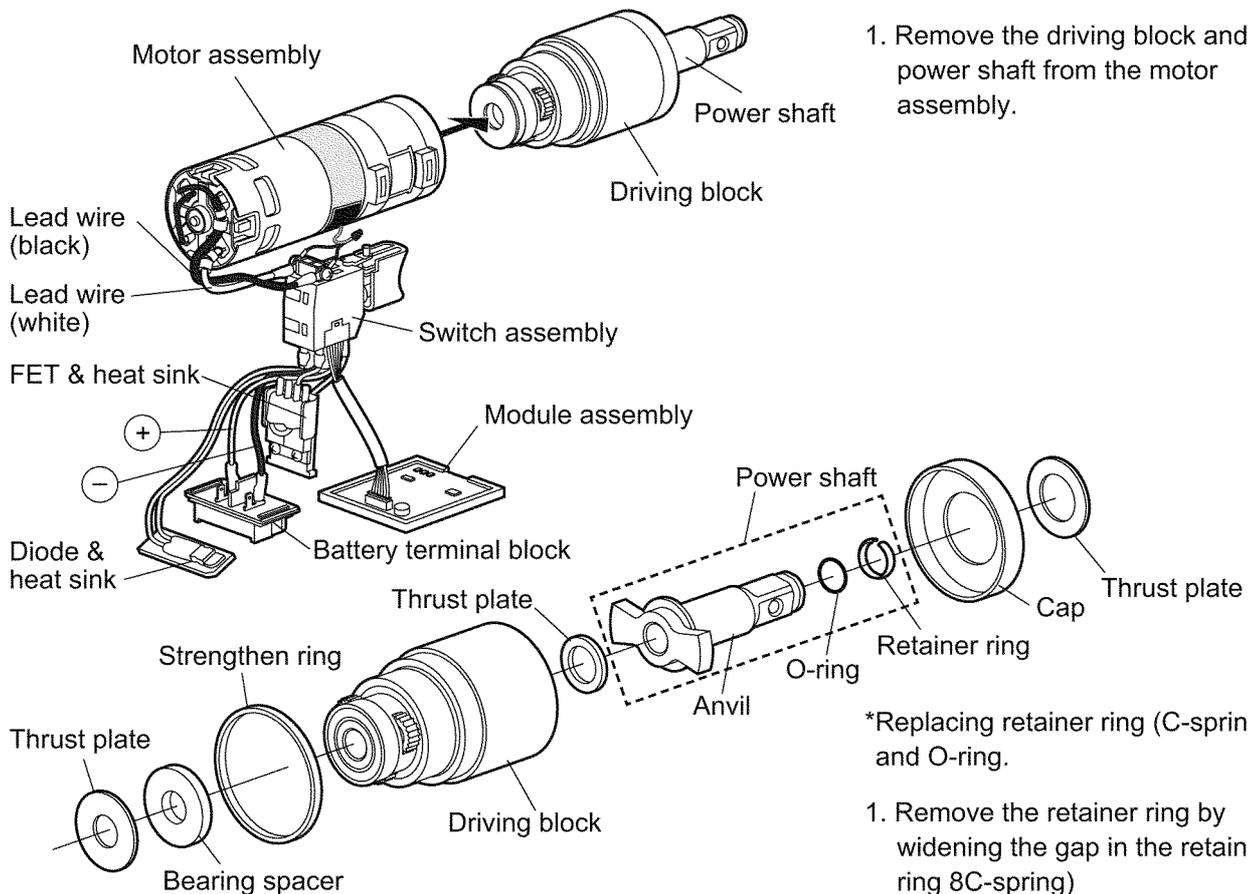
Screw K3*20
Tightening torque value;
 $1.0 \pm 0.3 \text{ N}\cdot\text{m}$ { $10.2 \pm 3 \text{ kgf}\cdot\text{cm}$ }

4.2. Removing the interior components



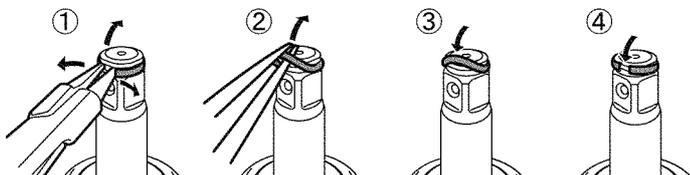
1. Remove the motor assembly, driving block, power shaft, switch assembly and module assembly from the housing A.

4.3. How to removing the Motor block and Driving block from the Motor assembly



1. Remove the driving block and power shaft from the motor assembly.

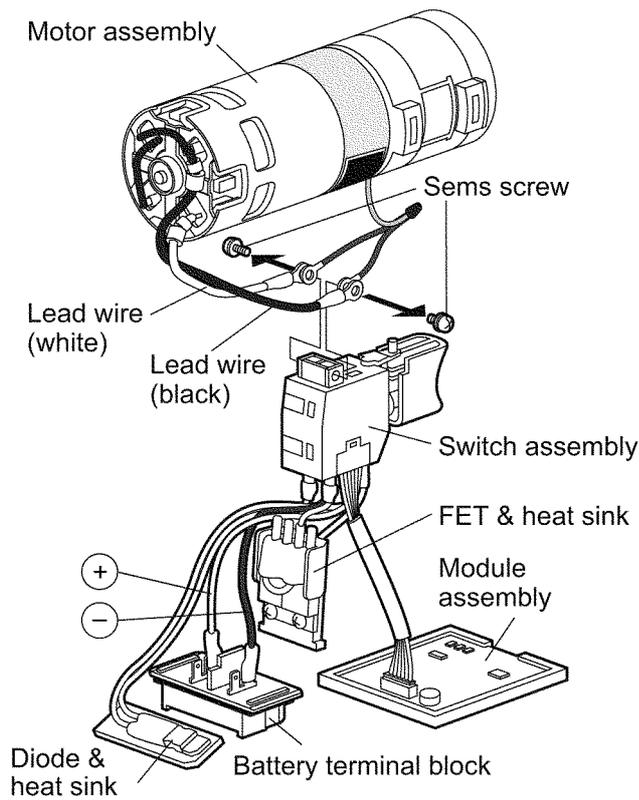
How to remove and reattach the Retainer ring and O-ring



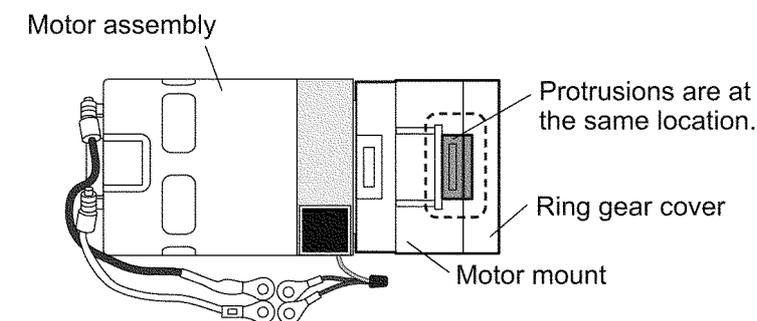
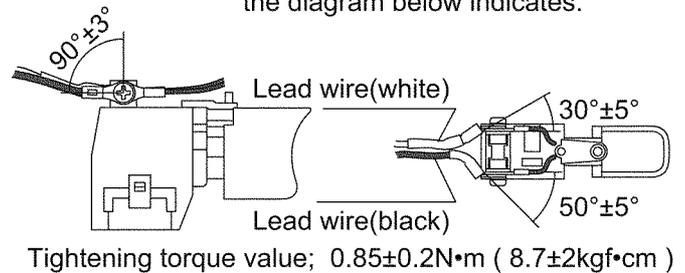
*Replacing retainer ring (C-spring) and O-ring.

1. Remove the retainer ring by widening the gap in the retainer ring (C-spring)
2. Remove the O-ring by inserting tweezers in the gap between the O-ring and power shaft.
3. Install a new O-ring in the groove of the power shaft.
4. Install the retainer ring (C-spring) by positioning it over the O-ring and engaging it in the groove.

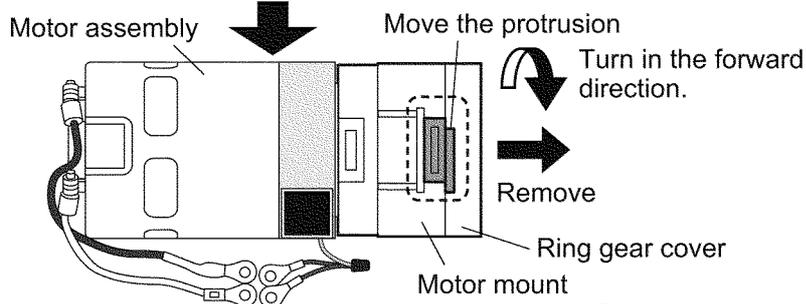
4.4. Removing the Switch assembly, ring gear and ring gear cover from the motor assembly



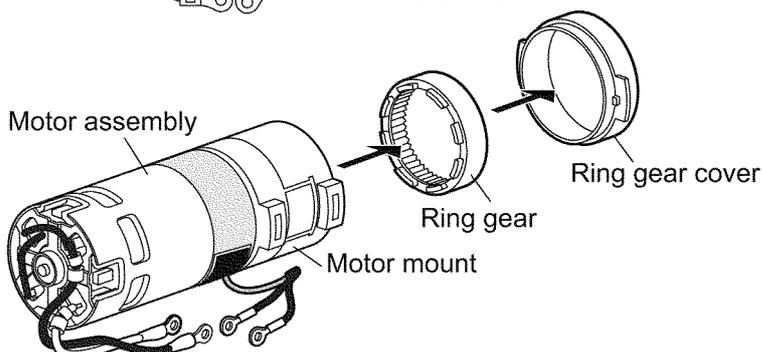
1. Unscrew the two screws that secure the lead wires from the motor assembly and remove them from the switch assembly.
 2. Remove the motor assembly from the switch assembly.
- *Caution in connecting motor lead wires.
- (1) Connect the white lead wire from the motor assembly to the M+ terminal on the switch assembly, and connect the black lead wire to the M-terminal.
 - (2) Set the lead wire installation angle as the diagram below indicates.
 - (3) Tighten the screws to the torque as the diagram below indicates.



3. Turn the ring gear in the forward direction.



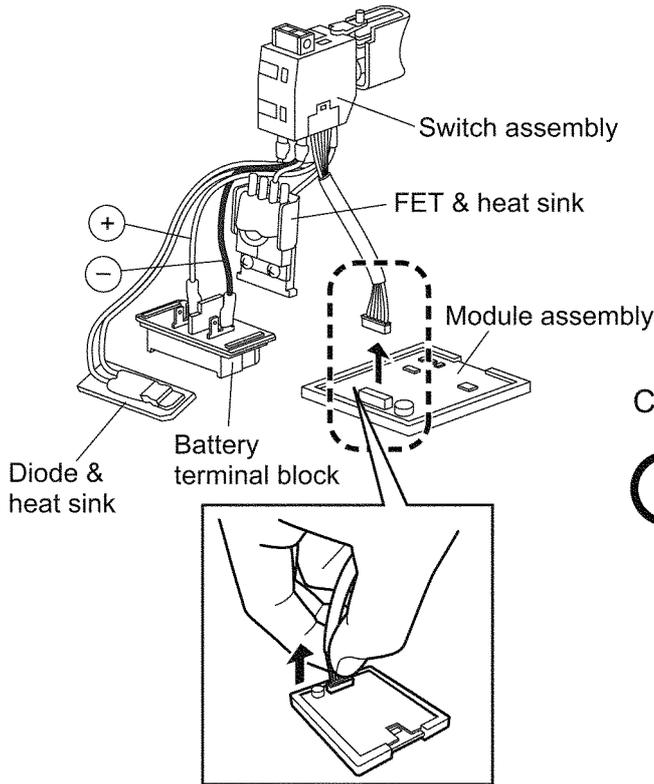
4. When the protrusion on the ring gear cover moves away from the protrusion on the motor mount, dismount the ring gear cover.



5. After dismantling the ring gear cover, remove the ring gear from the inside of the motor mount.

4.5. Removing the Module assembly from the Switch assembly

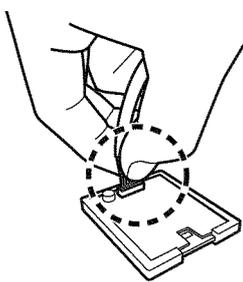
1. Disconnect the switch's assembly 7-pin connector from the module assembly.



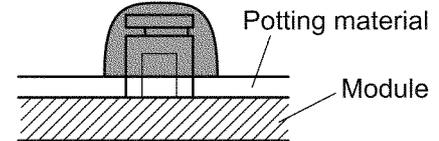
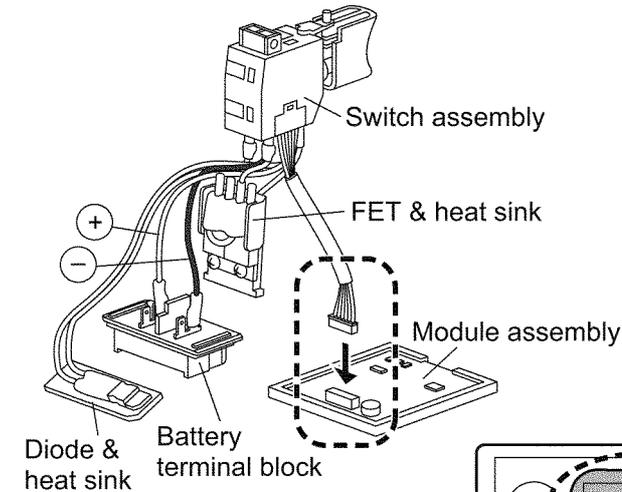
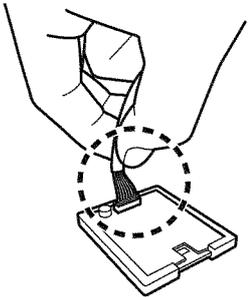
Connecting and disconnecting the connector



Grip the connector at its base and pull it out.



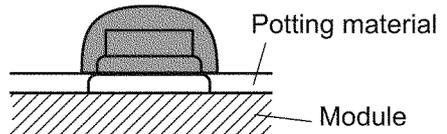
Pulling on the lead wires will break the wires.



Apply grease so that it completely covers the connector



Before connecting the harness, apply grease to the connector terminals. Insert the switch connector all the way, making sure that there is no gap between the connectors.

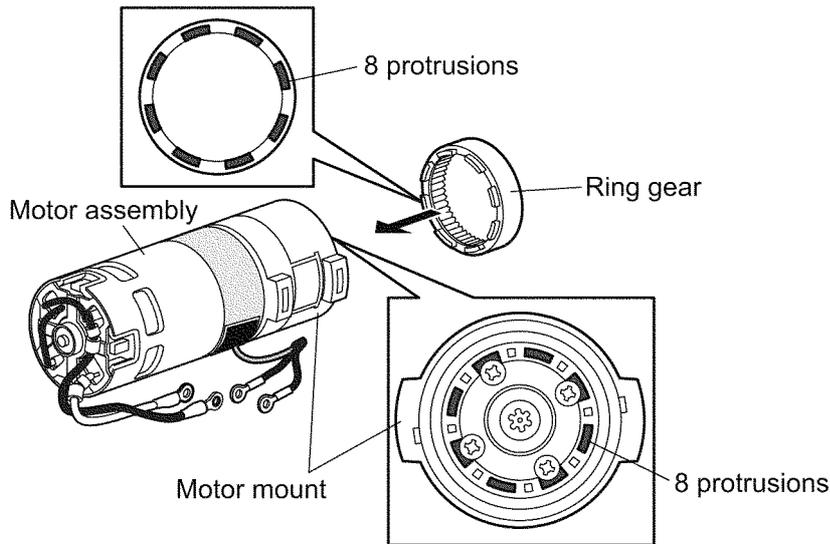


Apply grease so that it completely covers the switch.

Before connecting the switch connector to the module assembly, supply a liberal amount of grease into the connector on the module assembly.

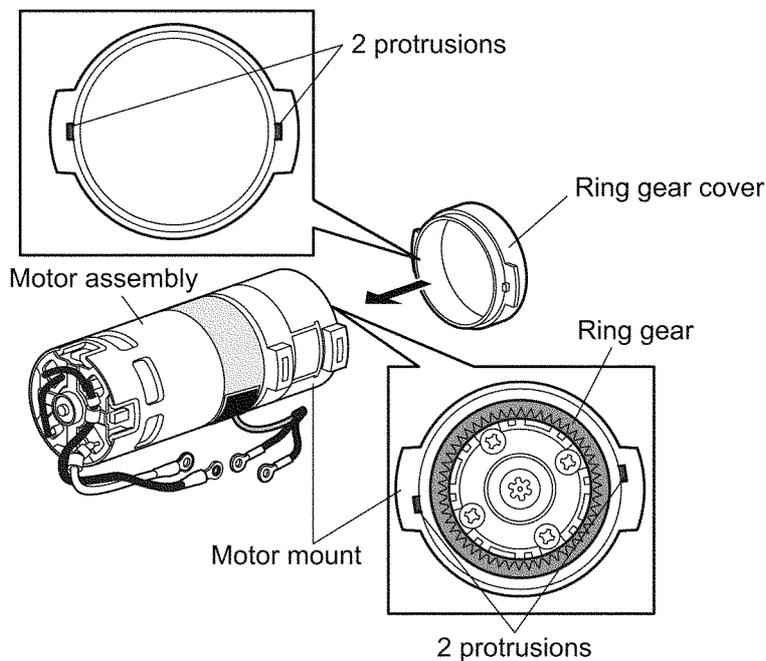
Grease : PERMALUB CPL501
Order number : WEY003W8957

4.6. Important note regarding the installation of ring gear and ring gear cover

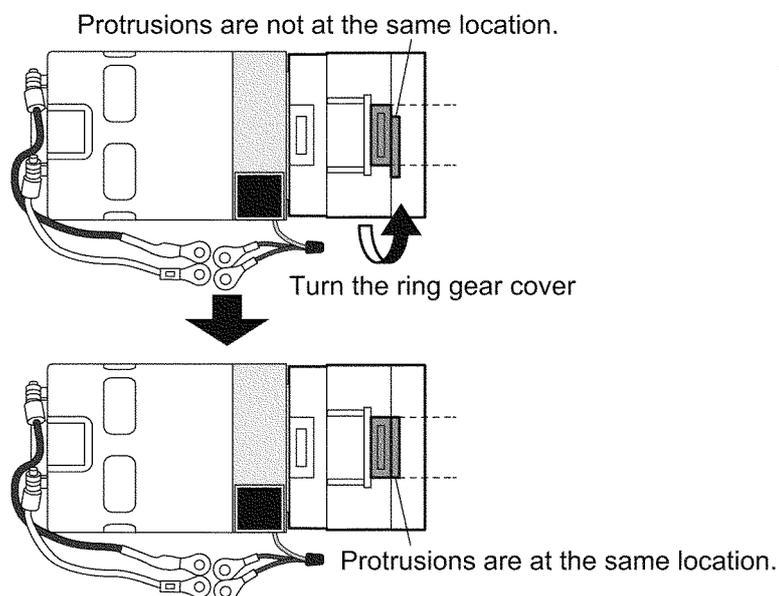


1. Position the side of the ring gear with eight protrusions toward the motor assembly, then insert the ring gear into the motor mount by aligning the eight protrusions with the eight concaves on the motor mount.

*During the assembly, check to make sure that an appropriate amount of grease (CALFOREX EP No.2) has been applied. If the amount of grease is insufficient, apply more grease.

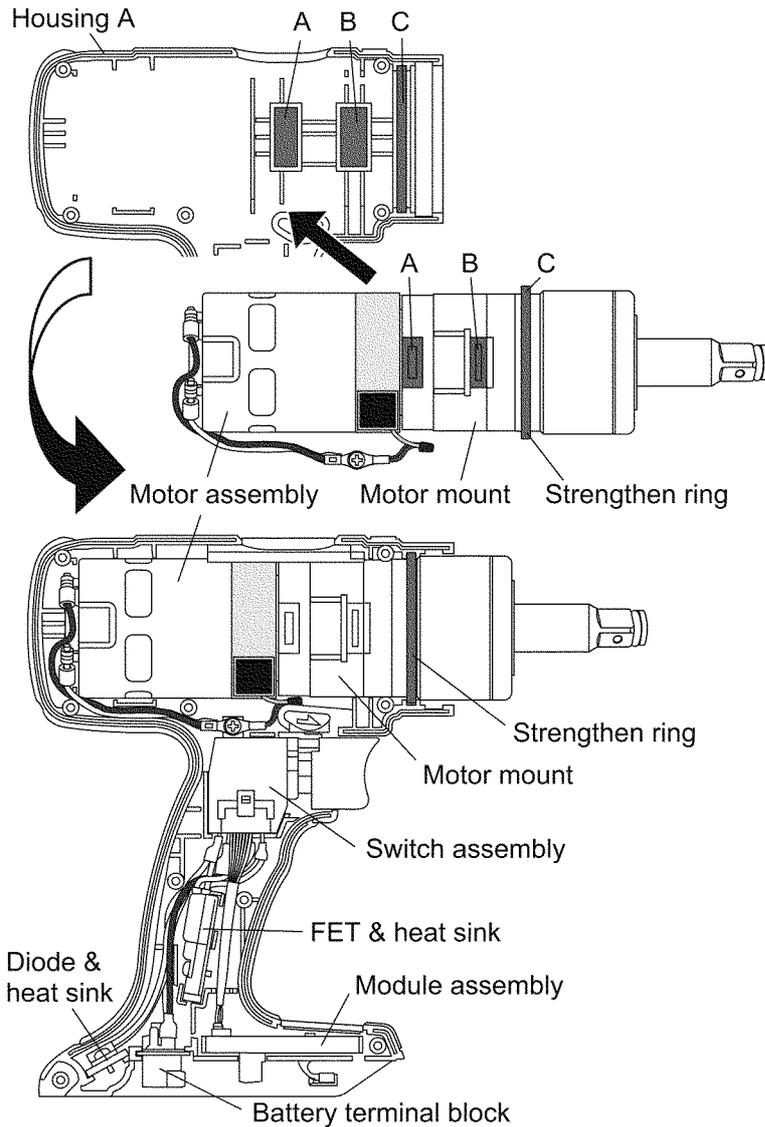


2. Attach the ring gear cover to the motor mount by aligning the two protrusions on the ring gear cover with the two concaves on the motor mount.



3. After inserting the ring gear cover, rotate the ring gear cover until the protrusion on the ring gear cover moves to the location of the protrusions on the motor mount.

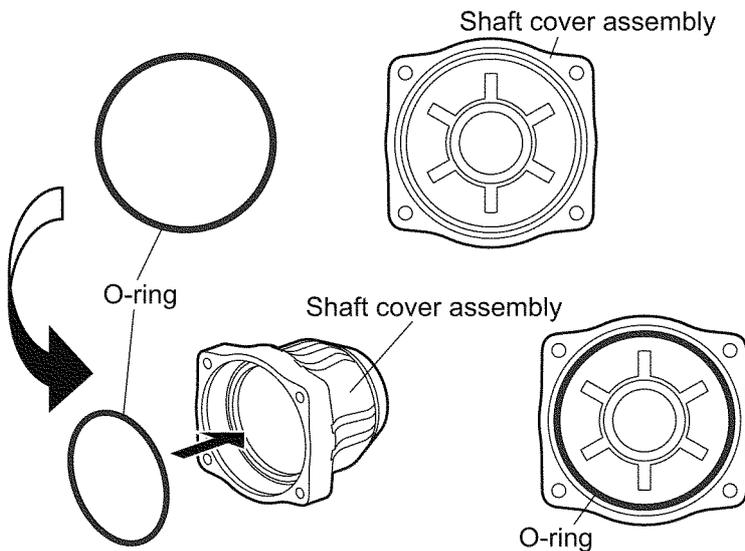
4.7. Important note regarding the installation of internal assemblies in housing A



1. When installing the motor assembly, motor mount, driving block and power shaft to housing A, align protrusion A of the motor mount with rib A of housing A, align protrusion B with rib B, and align strengthening ring C with rib C.

2. Insert and install the switch assembly, FET & heat sink, module assembly, battery terminal board, and diode & heat sink in the specified ribs of housing A.

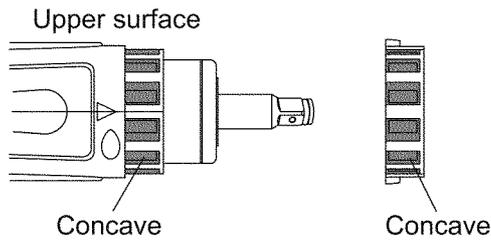
4.8. Important note regarding the installation of O-ring in shaft cover assembly



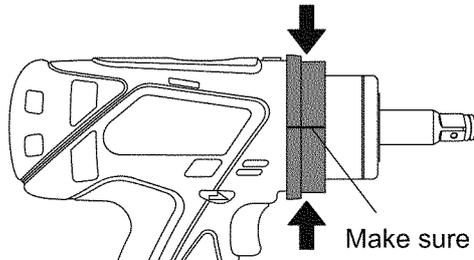
Apply grease (CALFOREX EP No.2) to O-ring, then insert it in the groove located inside the shaft cover assembly.

*Check again to make sure that O-ring has been installed.

4.9. Important note regarding the installation of case attachment and shaft cover assembly

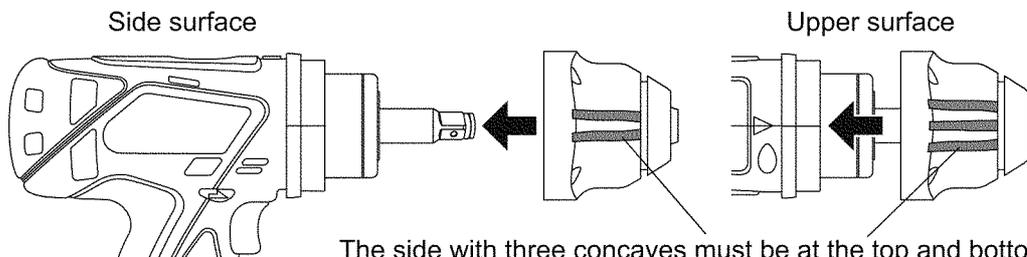


1. Align the protrusions on the case attachment with the concaves at the front end of the housing.

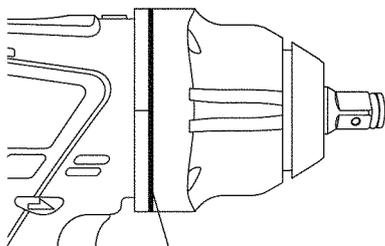


2. When installing the case attachment, position the upper and lower housing sections so that the side with screw holes faces the housing.

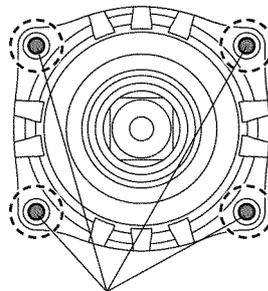
Make sure that there is no gap between the upper and lower sections.



The side with three concaves must be at the top and bottom, and the sides with two concaves should be positioned on the right and left sides.



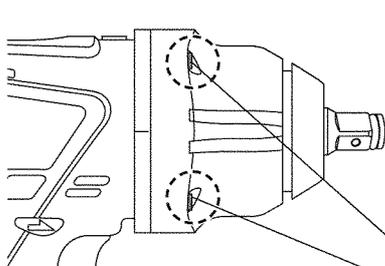
Make the gap as small as possible.



Make sure that the screw holes are aligned. If the screw holes are not aligned, hexagon coupling bolts will not enter properly into the screw holes.

3. Install the shaft cover assembly to the case attachment, making sure that the sides with three concaves are at the top and bottom.

4. Make sure that the screw holes in the case attachment are aligned with the screw holes in the shaft cover assembly when mounting.

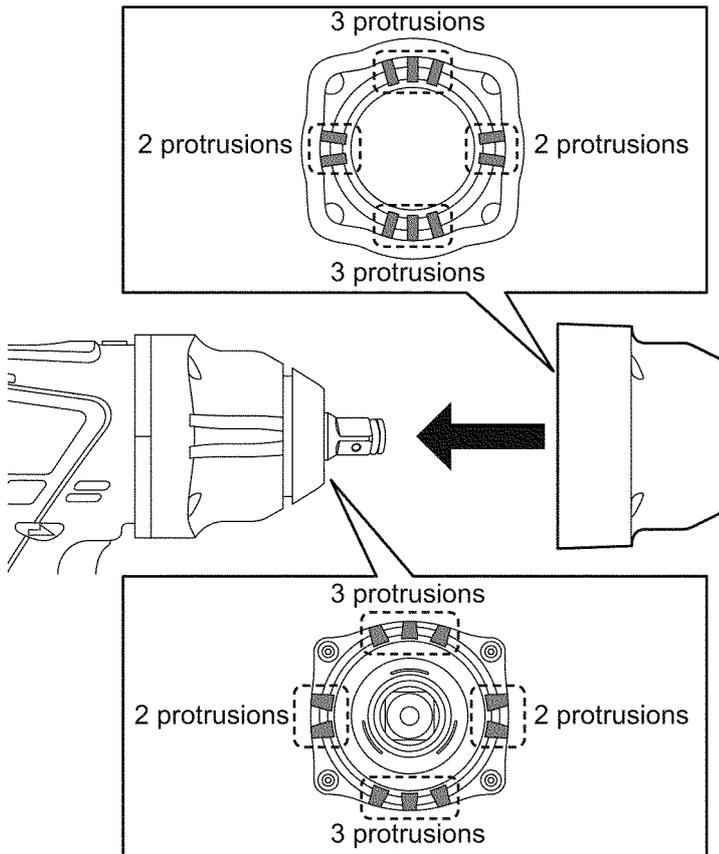


Hexagon coupling bolt
 $4.4 \pm 0.5 \text{ N} \cdot \text{m} (44.9 \pm 5.1 \text{ kgf} \cdot \text{cm})$

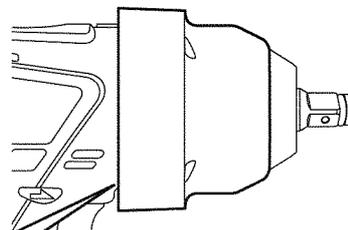
5. After aligning the screw holes, install four hexagon coupling bolts.

6. When tightening the hexagon coupling bolts, make sure that there is no gap between the shaft cover assembly and case attachment. Also, check to make sure that there is no gap between the upper and lower sections of the case attachment.

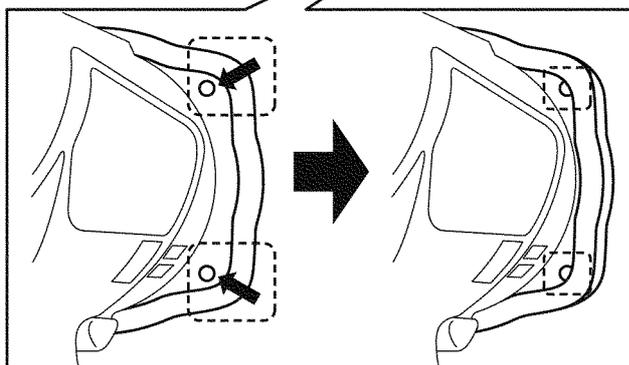
4.10. Precautions when attaching the nose protector



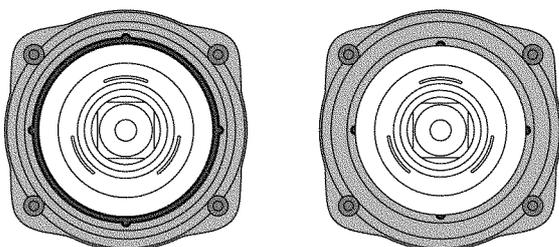
1. When installing the nose protector to the shaft cover assembly, make sure that the sides with three protrusions are located at the top and bottom.



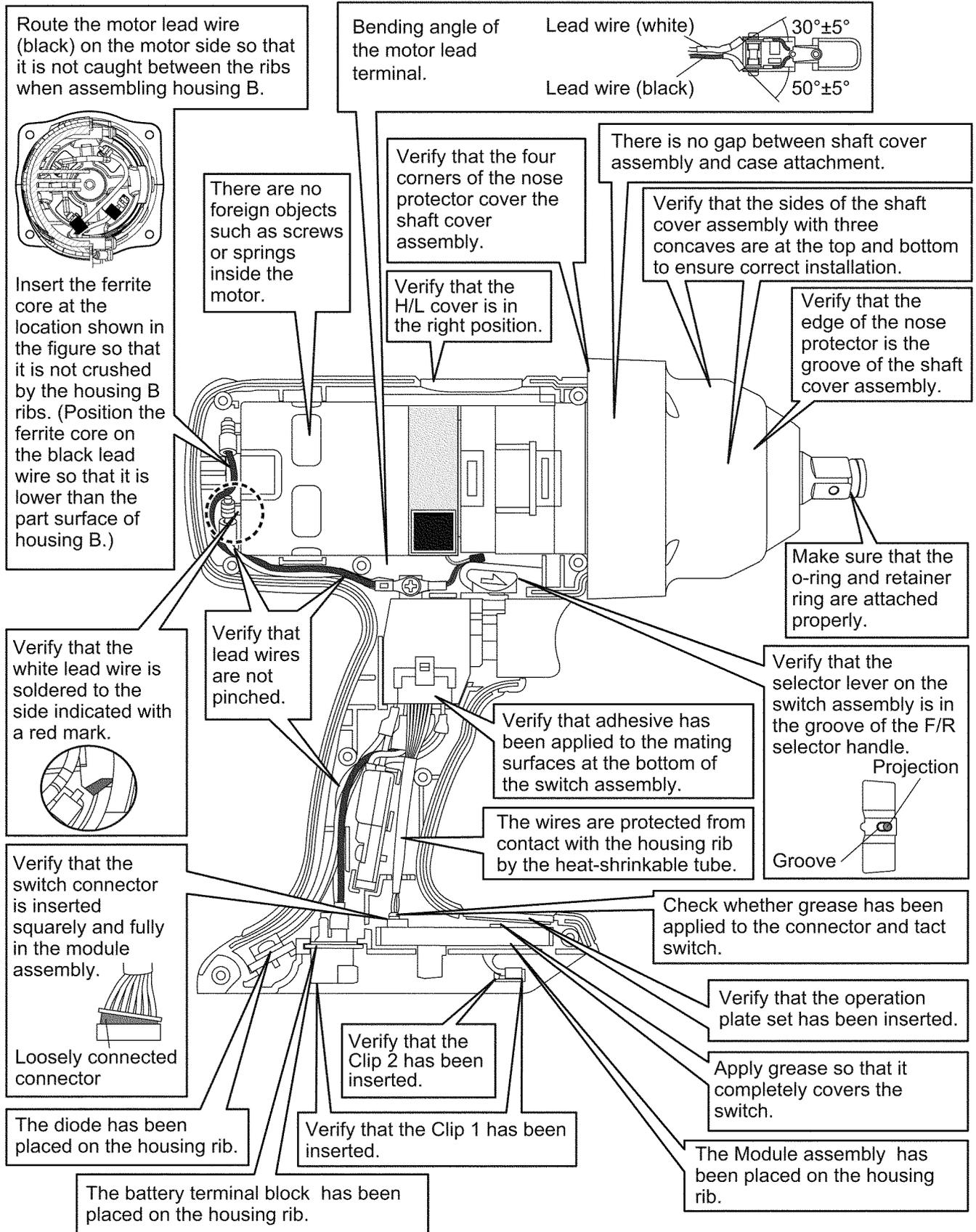
2. After mounting the nose protector to the shaft cover assembly, make sure that the nose protector covers the four corners of the case attachment.



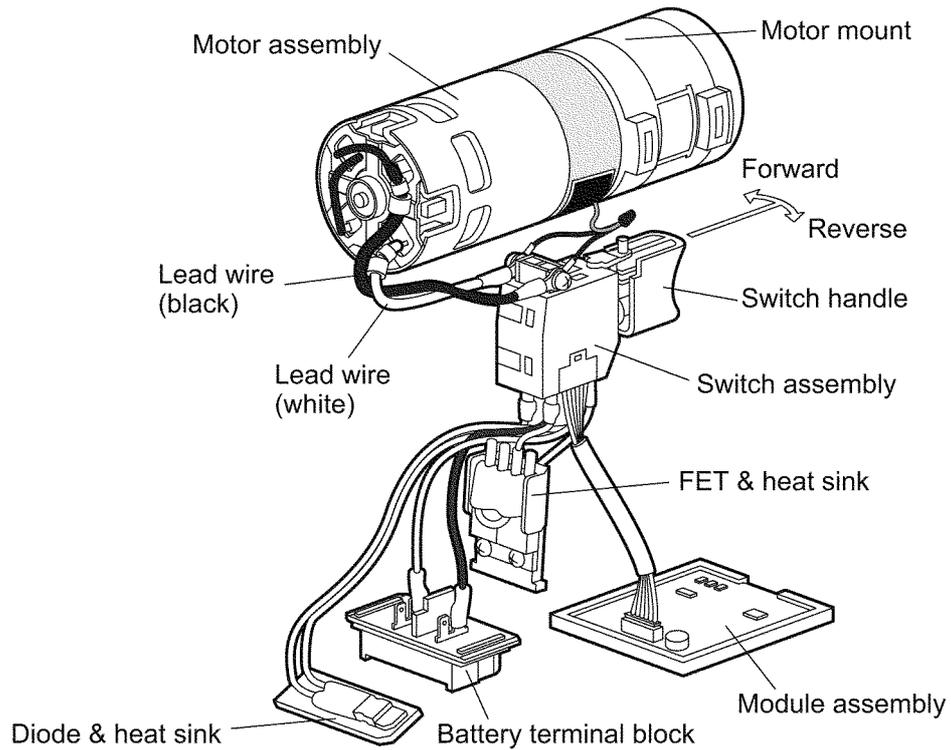
3. The nose protector must be installed in such a way that its edge is engaged in the groove of the shaft cover assembly.



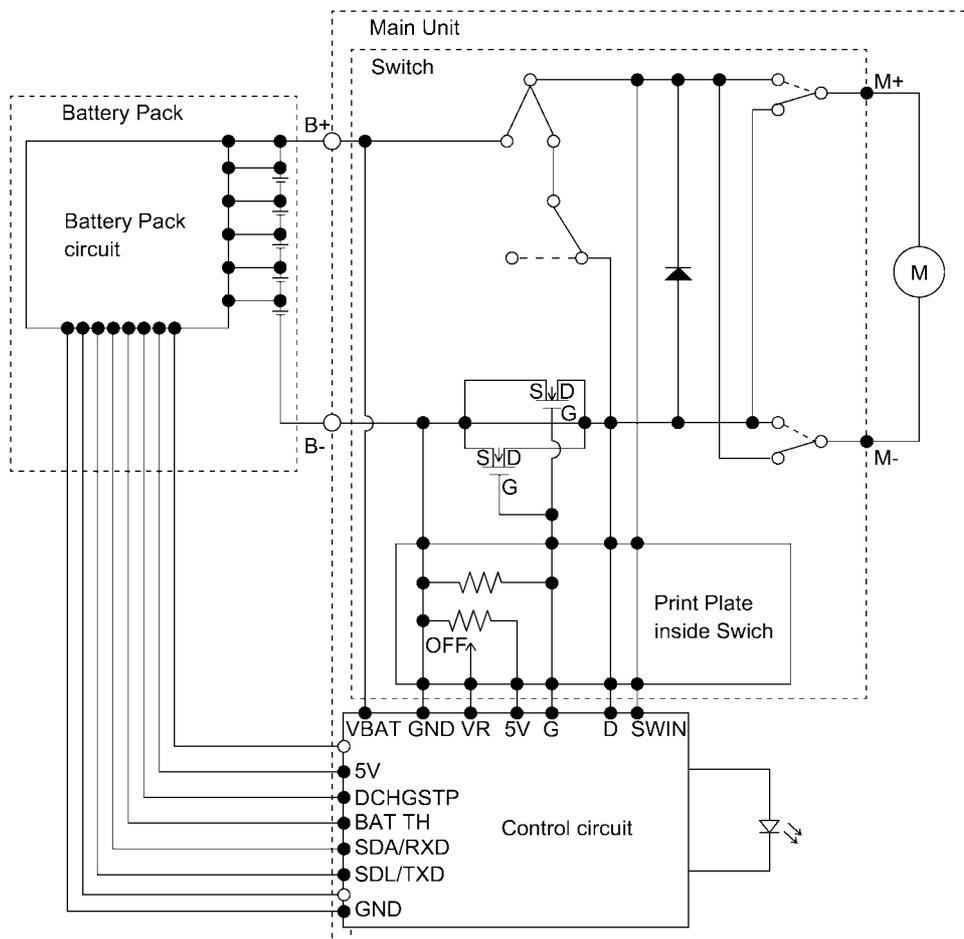
4.11. Wiring and assembly Points



5 Wiring Connection Diagram

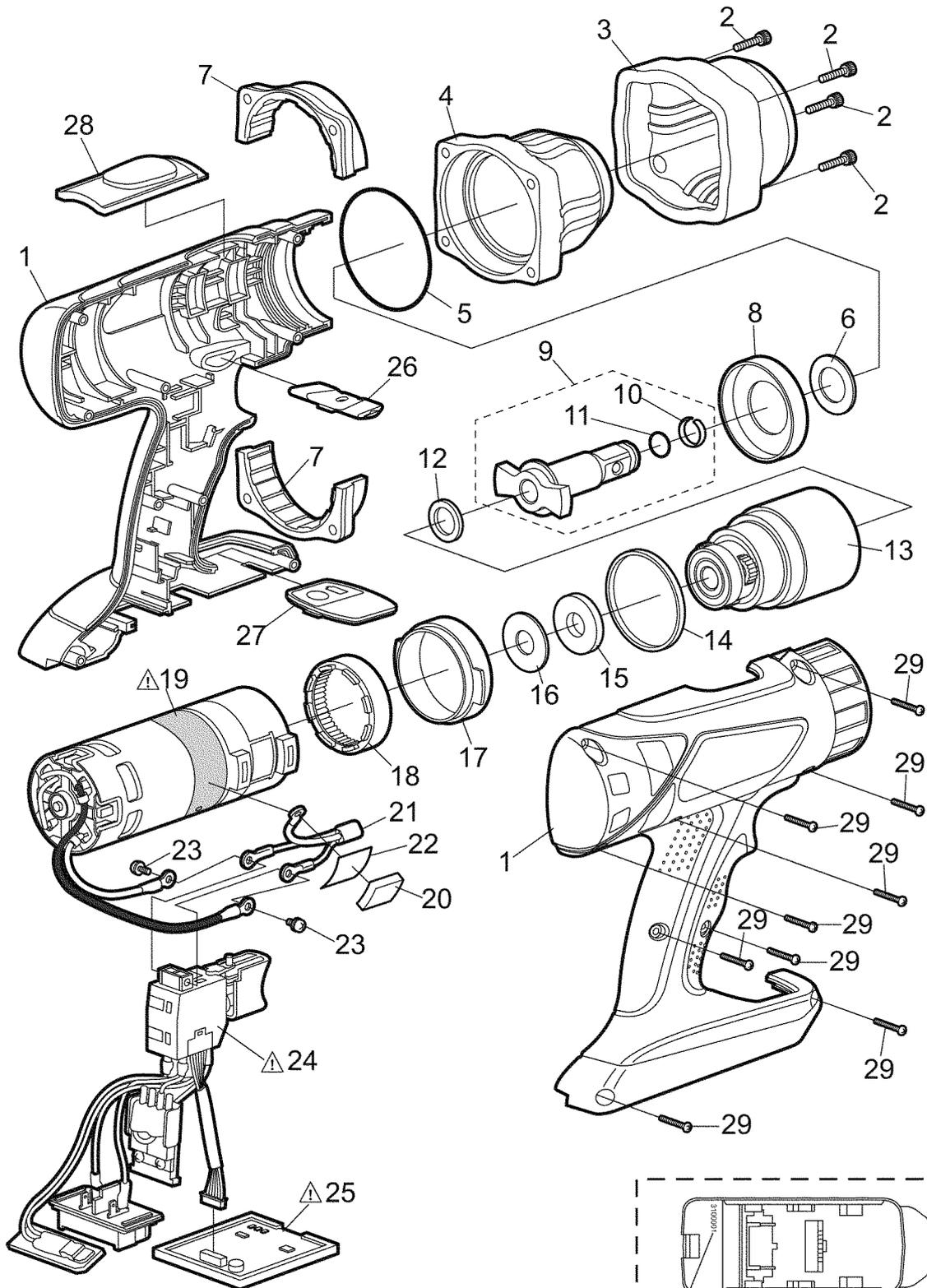


6 Schematic Diagram



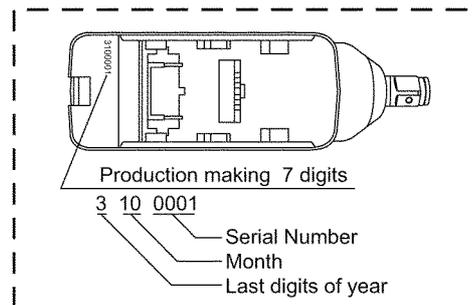
7 Exploded View and Replacement Parts List

7.1. 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.



7.2. Replacement Parts List

Safety	Ref. No.	Part No.	Part Name & Description	Quantity	Remarks
	1	WEY7552H3079	HOUSING AB SET	1	(for EUROPE)
	1	WEY7552H3070	HOUSING AB SET	1	(for OCEANIA)
	2	WEY7552L6417	HEXAGON COUPLING BOLT	4	(M4)
	3	WEY7552K3107	NOSE PROTECTOR	1	
	4	WEY7552S3747	SHAFT COVER ASSEMBLY	1	
	5	WEY7552K0857	THRUST PLATE	1	
	6	WEY7552L0967	O-RING	1	
	7	WEY7552K3537	CASE ATTACHMENT	1	(Upper/Lower attachment sets)
	8	WEY7552W0527	CAP	1	
	9	WEY7552K1127	POWER SHAFT	1	
	10	WEY7552K0187	RETAINER RING	1	
	11	WEY7552K0987	O-RING	1	
	12	WEY7552K0847	THRUST PLATE	1	
	13	WEY7552L4058	DRIVING BLOCK	1	
	14	WEY7552K0497	STRENGTHEN RING	1	
	15	WEY7552K0207	BEARING SPACER	1	
	16	WEY7552H0867	THRUST PLATE	1	
	17	WEY7552C1817	RING GEAR COVER	1	
	18	WEY7552S1417	RING GEAR	1	
	19	WEY7552L1007	MOTOR ASSEMBLY	1	
	20	WEY7552K0308	RUBBER	1	
	21	WEY7552L2388	CAPACITOR	1	
	22	WEY7552L8398	HEAT RESISTANT TAPE	1	(30m/roll)
	23	WEY6230L6027	SEMS SCREW	2	(K3*6)
	24	WEY7552L2007	SWITCH ASSEMBLY	1	
	25	WEY7552L2107	MODULE ASSEMBLY	1	
	26	WEY7547H3247	F/R SELECTOR HANDLE	1	
	27	WEY7552K3957	OPERATION PLATE SET	1	
	28	WEY7552K3237	H/L COVER	1	
	29	WEY6930K9216	SCREW	9	(K3*20)
	-	WEY9L40R2788	BATTERY PACK COVER	1	
	-	WEY9644K7018	TOOL CASE	1	
	-	WEY7552K8109	OPERATING INSTRUCTIONS	1	
	-	WEY004X8967	CALFOREX	1	
	-	WEY003W8957	GREASE (PERMALUB)	1	