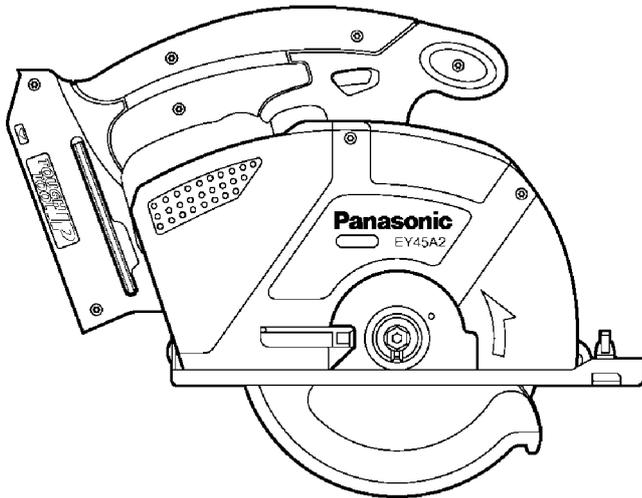


Service Manual

Cordless Multi Purpose Cutter

Model No. EY45A2

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 indication

Greater than or equal to 1kg:indicated by 0.05kg.

Less than 1kg :indicated by 0.01kg.

Main Unit

Model no.	EY45A2				
Motor voltage	DC 14.4 V			DC 18 V	
Rated no load speed	3600 rpm (min ⁻¹)			4500 rpm (min ⁻¹)	
Blade size	135 mm				
Outside diameter	20 mm				
Arbor size	0 - 46 mm (Φ135 mm blade)				
Maximum cutting depth	5.4 N•m			6.7 N•m	
Maximum torque	292 mm (main unit only)				
Overall length	2.05 kg (main unit only)				
Weight	Li-ion battery packs				
Battery packs	EY9L42	EY9L44	EY9L45	EY9L50	EY9L51
	DC 14.4 V			DC 18 V	
	Typical Noise Emission Values according to EN 60745; Sound Pressure Level (L _{pA}): 77 dB (A) Sound Power Level (LWA): 88 dB (A) Uncertainty (K): 3 dB Typical Vibration according to EN 60745; ≤1.64 m/s ² Uncertainty (K): 1.5 m/s ²				

Battery Charger

Model no.	EY0L82					
Electrical rating	See the rating plate on the bottom of the charger					
Weight	0.93 kg					
Charging time	Model No.	EY9L42	EY9L44	EY9L45	EY9L50	EY9L51
	Usable	30 min.	40 min.	50 min.	40 min.	55 min.
	Full	35 min.	55 min.	60 min.	55 min.	70 min.

NOTE:

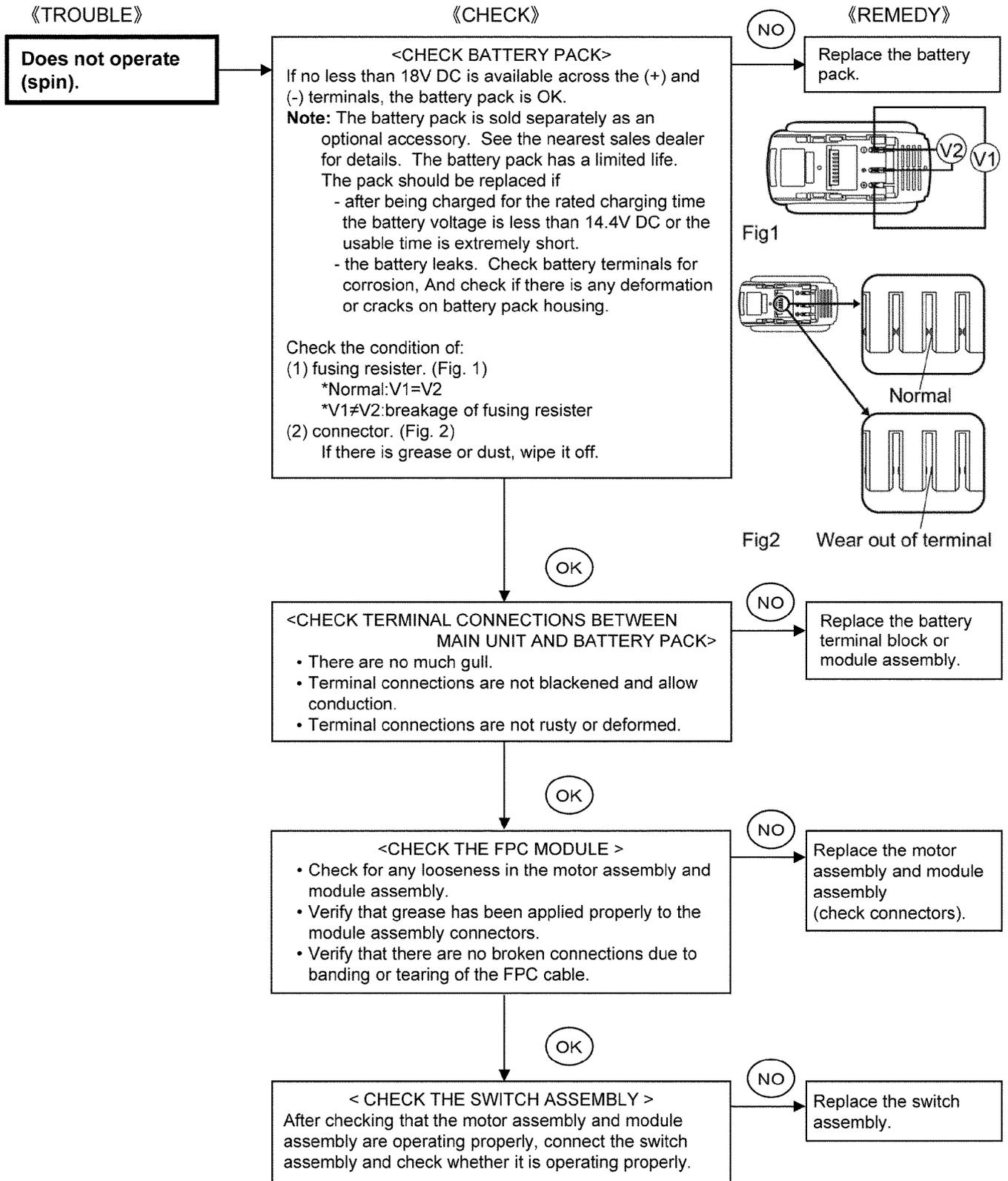
This chart may include models that are not available in your area.

Please refer to the latest general catalogue.

For the dealer name and address, please see the included warranty card.

3 Troubleshooting Guide

3.1. Troubleshooting Guide



To next page

《TROUBLE》

《CHECK》

《REMEDY》

- < CHECK THE MOTOR ASSEMBLY >
- Verify that the pinion gear is not chipped and that it is engaged properly.
 - Verify that the motor windings are not discolored and that the motor does not produce a burnt smell.
 - Verify that the motor rotates when connecting 14.4 V / 18 V DC between white (+) and black (-) lead wires.
 - After checking that the switch assembly and module assembly are operating properly, connect the motor assembly and check whether it is operating properly.

NO

Replace the motor switch assembly.

《TROUBLE》

《CHECK》

《REMEDY》

Off lock lever does not move.

- < CHECK THE OFF LOCK LEVER >
- Conform if the spring is set proper position.
 - Check if the off lock lever is worn out.

NO

Replace the switch lock spring.

Abnormal sounds and vibrations.

- < CHECK THE DRIVING BLOCK >
- Confirm the smooth movement of lock button.
 - Confirm the condition in mesh or of grease between mid gear and output gear.
 - Check if the pinion gear is loose.

NO

Replace the mid gear assembly or gear A assembly.
Apply grease to gear case.

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.
- Confirm all screws are tightened firmly.
- Verify that the cutting blades are not cracked.
- Verify that the hex wrench has been stowed in the storage slot in housing B.

3.2.2. Operation

- Check whether the switch function operate properly.
- Check the smooth movement of lower guard, switch button and off-lock lever.
- Check whether the tool become hot in a short operation.
- Verify that the brake engages when the trigger is released. Repeat this process about 10 times.

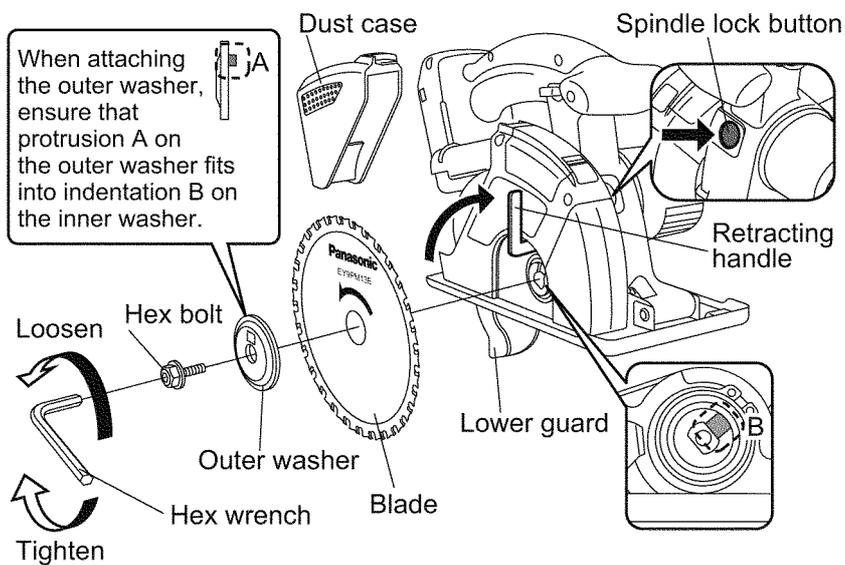
3.2.3. Integrity

- 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. Removing the Blade



CAUTION:

The blade will be hot right after cutting. Be sure to let the blade cool down before removing it.

1. Hold the spindle lock button down. This prevents the blade from rotation.
2. Use the provided hex wrench to loosen the hex bolt.

NOTE:

Keep the hex wrench in the storage slot on the tool's body when not using it.

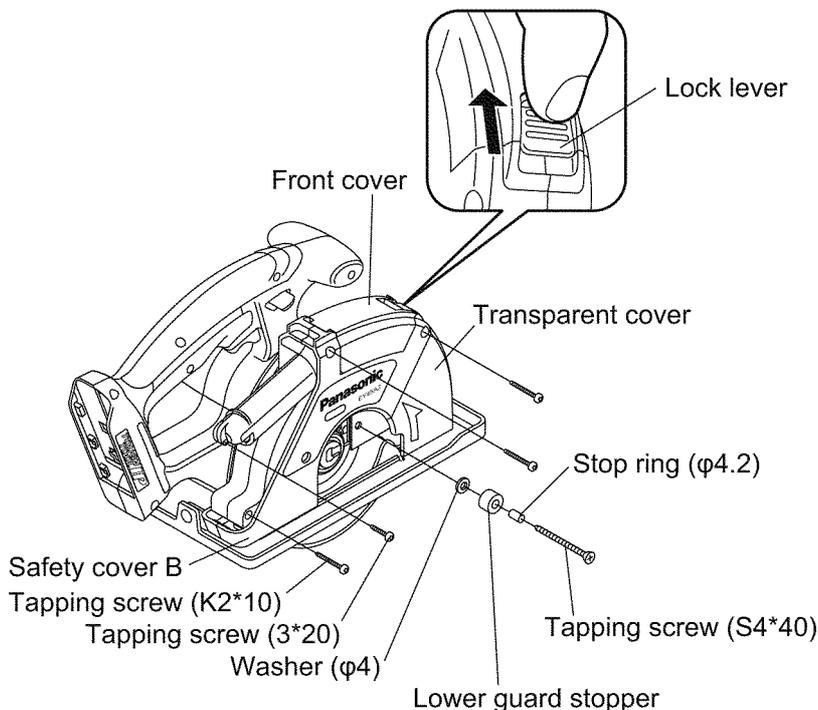
3. Remove the hex bolt and outer washer.
4. Use the retracting handle to retract (open) the lower guard.
5. Carefully remove the blade.

CAUTION:

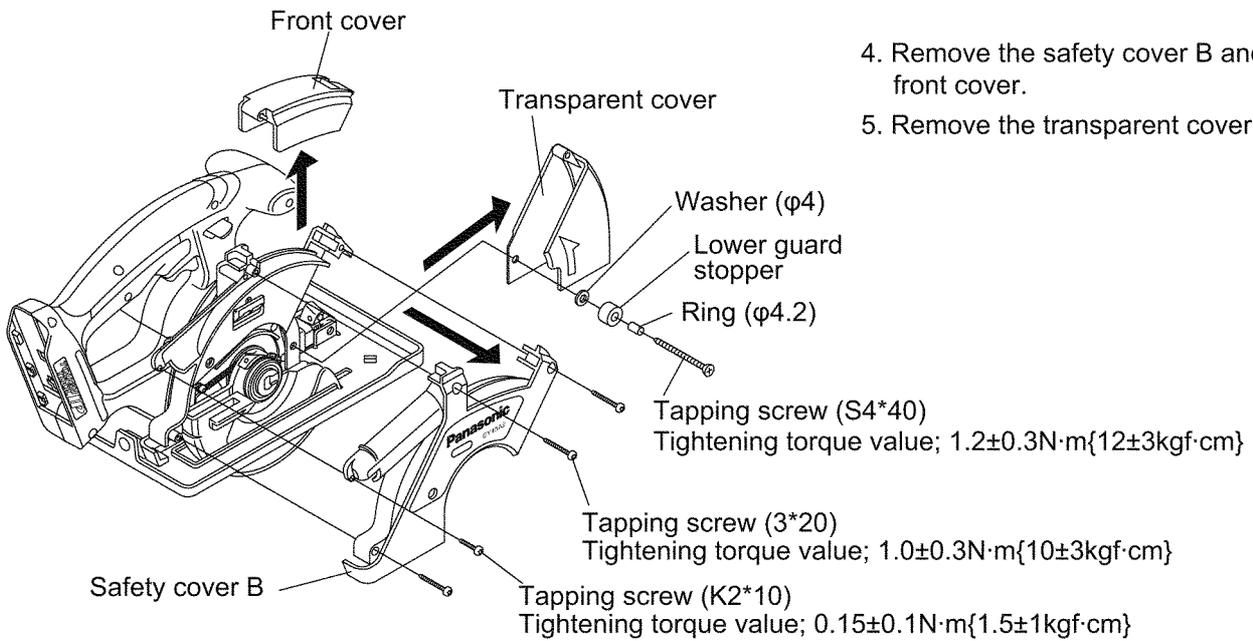
Be careful to avoid cutting your hands on the blade.

*Tighten the hex bolt securely. (Failure to do so may allow it to become loose during use, posing a danger to the operator.)

4.2. Removing the safety cover B, front cover assembly and transparent cover

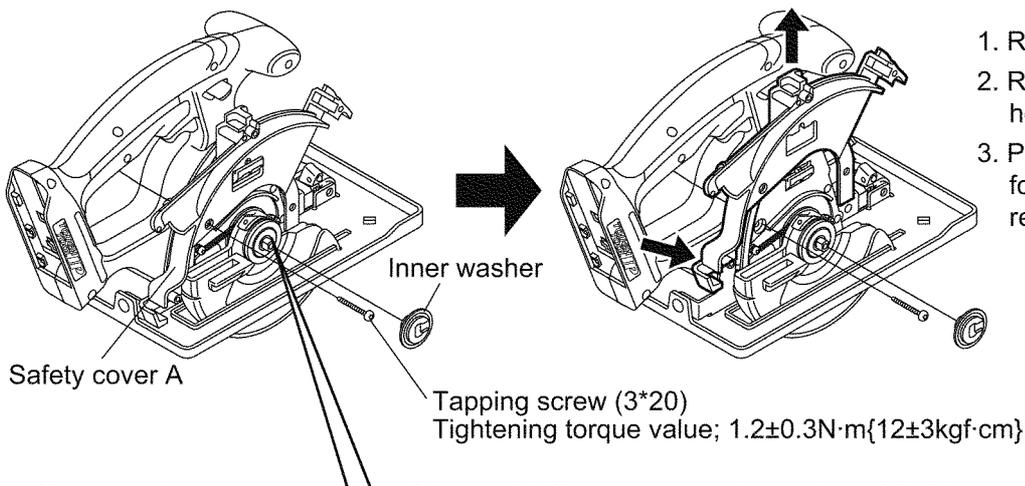


1. Remove the four screws that attach the safety cover B.
2. Remove the lock lever from the front cover.
3. Remove the tapping screw, inner washer and the stop ring holding the transparent cover and safety cover A.

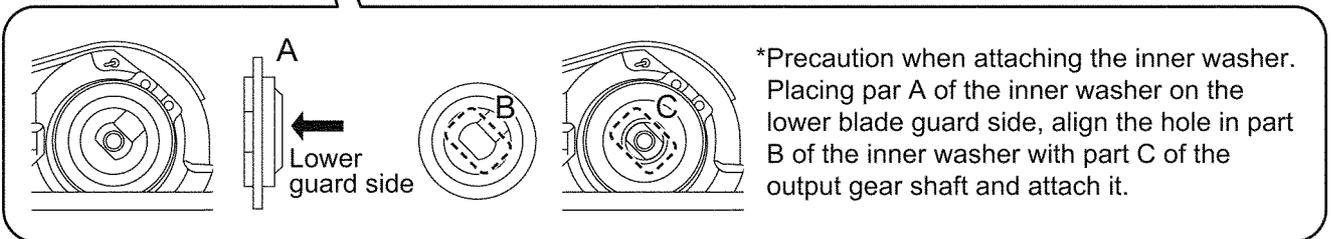


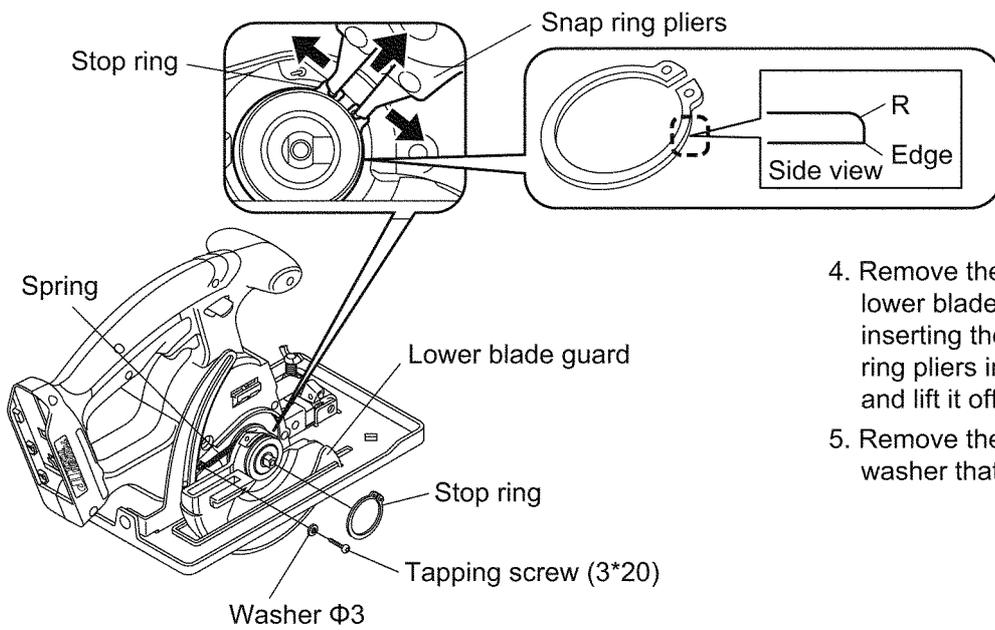
4. Remove the safety cover B and front cover.
5. Remove the transparent cover.

4.3. Removing the safety cover and lower guard

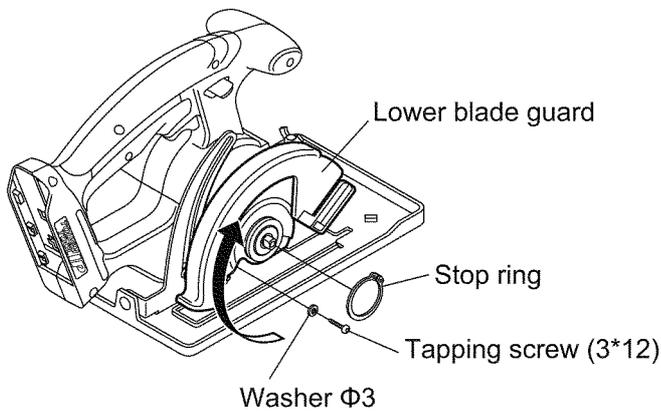


1. Remove the inner washer.
2. Remove the tapping screw holding the safety cover A.
3. Press safety cover A forward and lift up to remove.

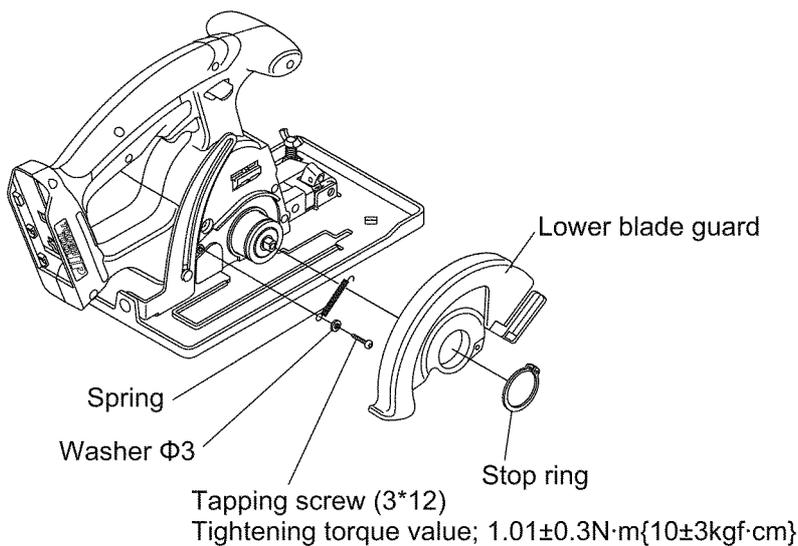




4. Remove the stop ring that holds the lower blade guard in place by inserting the tips of a pair of snap ring pliers into the hole in the ring and lift it off while opening the pliers.
5. Remove the tapping screw and washer that hold the spring in place.

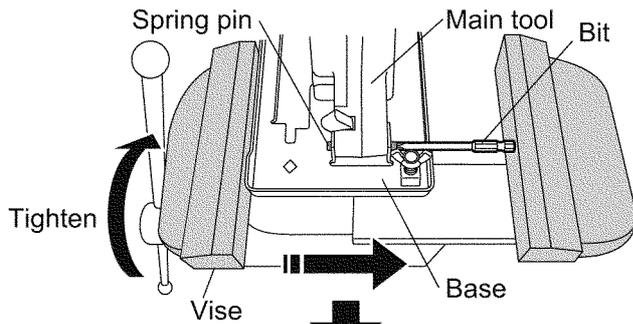


6. Rotate the lower blade guard 180° and remove it and the spring.



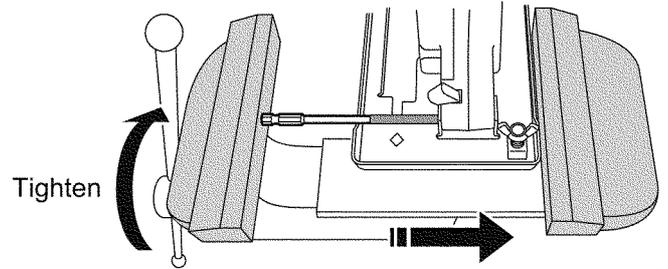
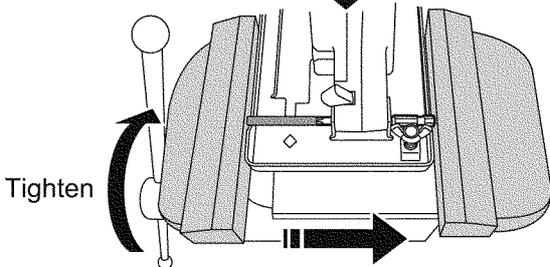
7. Remove the spring from the lower guard.

4.4. Removing the base



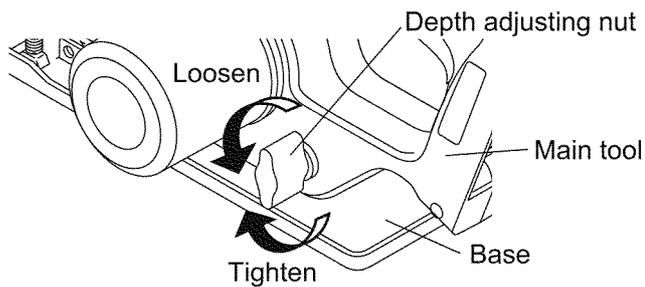
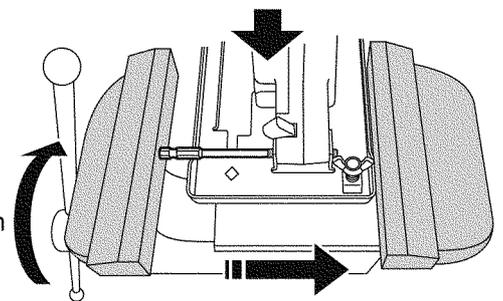
1. Insert a bit into the spring pin that holds the main tool and base together and place the base in a vise. Push the spring pin out while gradually tightening the vise.

*Exercise care when tightening the vise so that the spring pin's shape is not deformed.

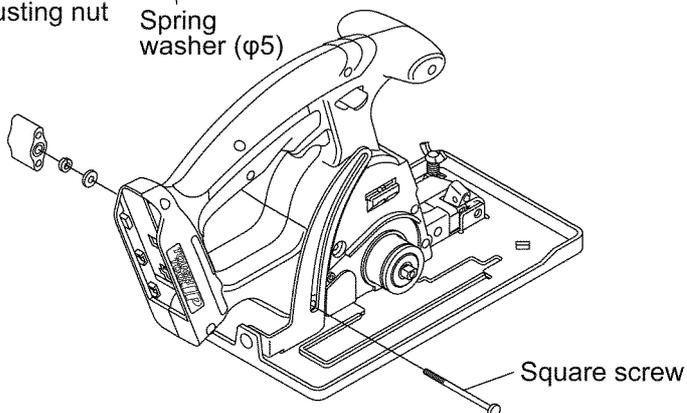
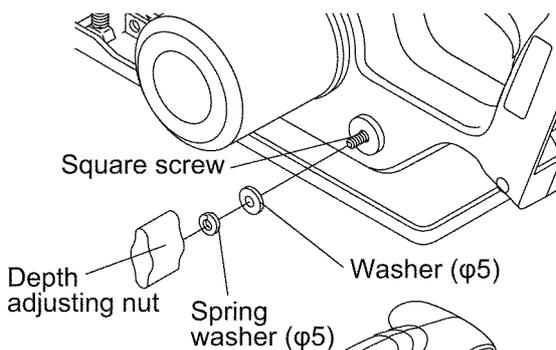


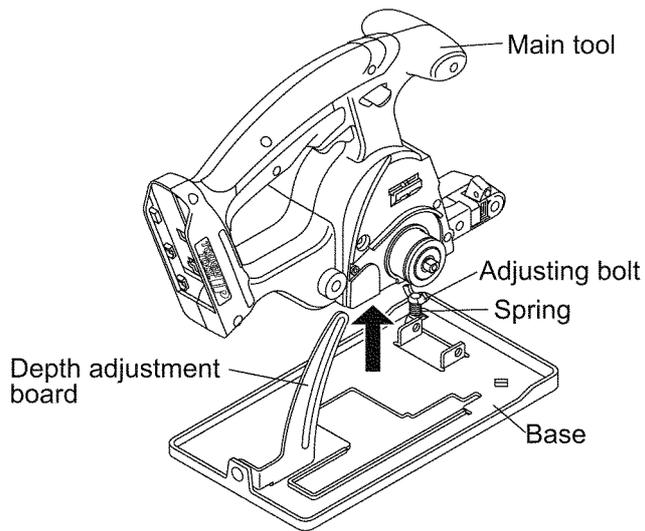
*Precautions when attaching the spring pin

- Do not use a bit with too large a diameter (exercise care so as not to deform the pin's shape).
- Gradually tighten the vise while supporting the base so that the spring pin does not fall out of the vise.



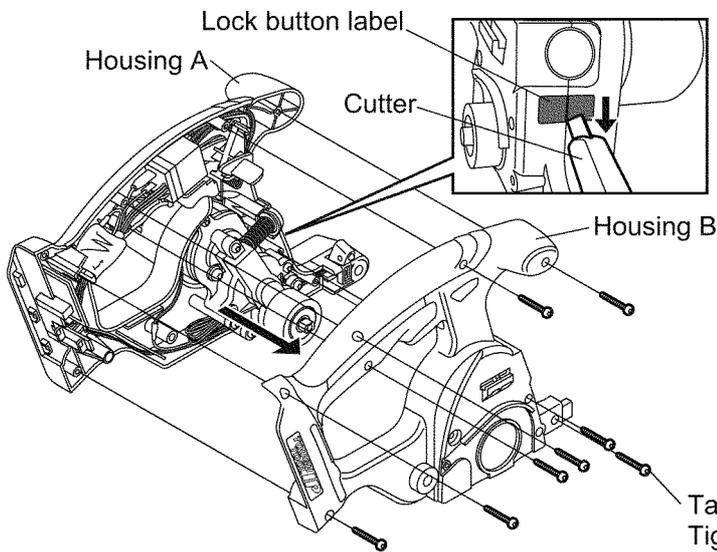
2. Loosen the depth adjusting nut and remove the spring washer and square screw from the depth adjustment nut.





3. Remove the base from the main tool.

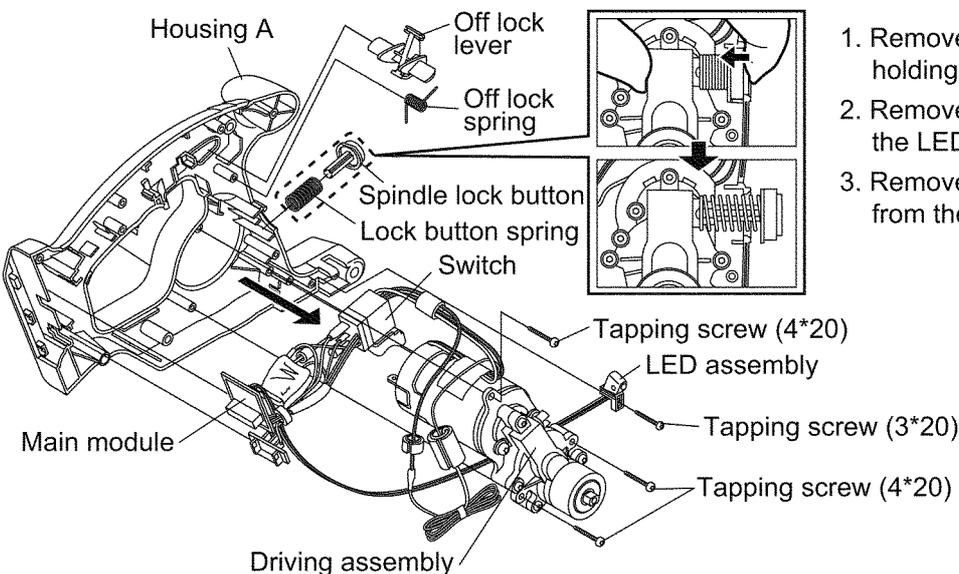
4.5. Removing the housing B



Tapping screw (3*20)
Tightening torque value; $1.2 \pm 0.3 \text{ N}\cdot\text{m}$ { $12 \pm 3 \text{ kgf}\cdot\text{cm}$ }

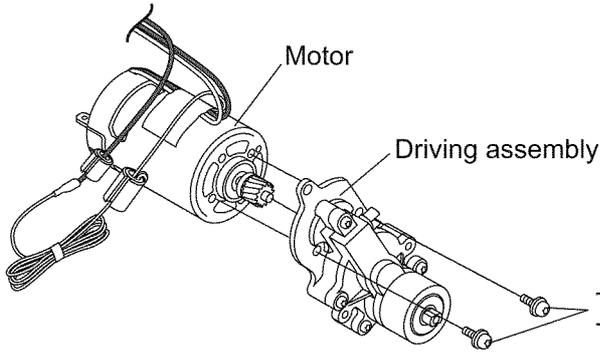
1. Remove the eight tapping screws that hold housing A and housing B together.
2. Cut the lock button label along the seam between housing A and housing B with a box cutter.
3. Remove the housing B from the housing A.

4.6. Removing the interior components



1. Remove the three tapping screws holding the driving assembly.
2. Remove the tapping screw holding the LED assembly.
3. Remove the interior components from the housing A.

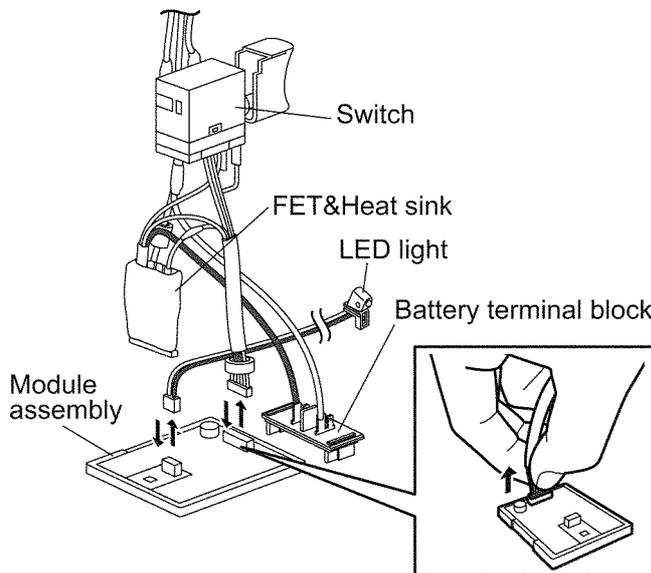
4.7. Removing the driving assembly from the motor



1. Remove the two torx sems screws holding the motor.

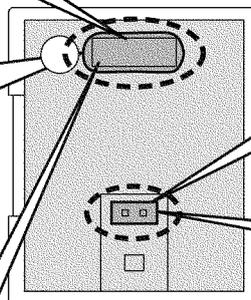
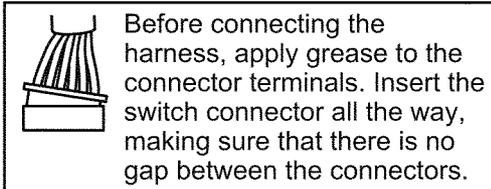
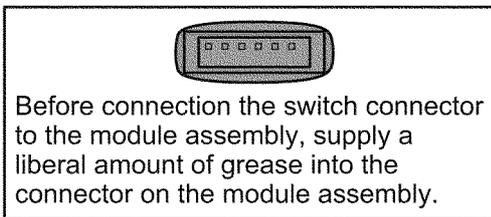
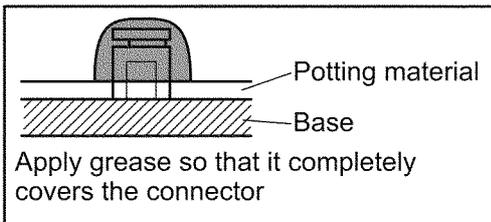
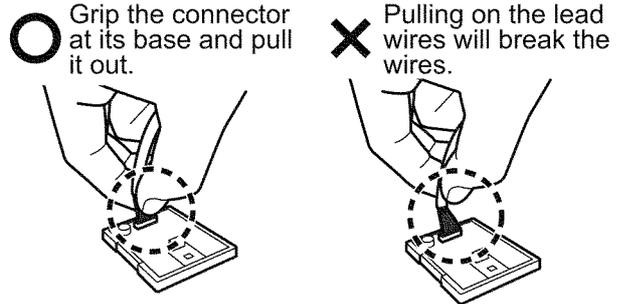
Torx sems screw (5*9)
Tightening torque value; $1.47 \pm 0.3 \text{ N}\cdot\text{m}$ { $15 \pm 3 \text{ kgf}\cdot\text{cm}$ }

4.8. Removing the switch and LED light from, and reattaching them to, the module assembly

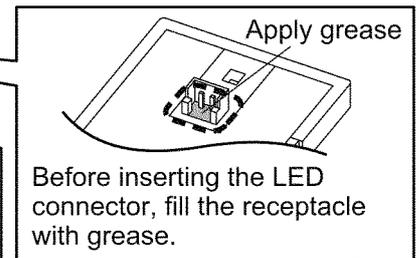
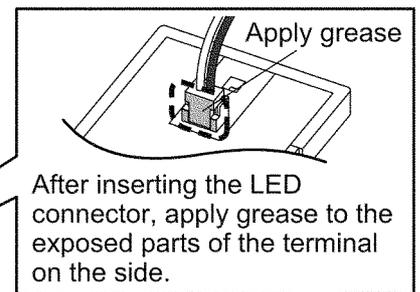


1. Remove the switch's 7P connector and the LED light's 2P connector from the module assembly.

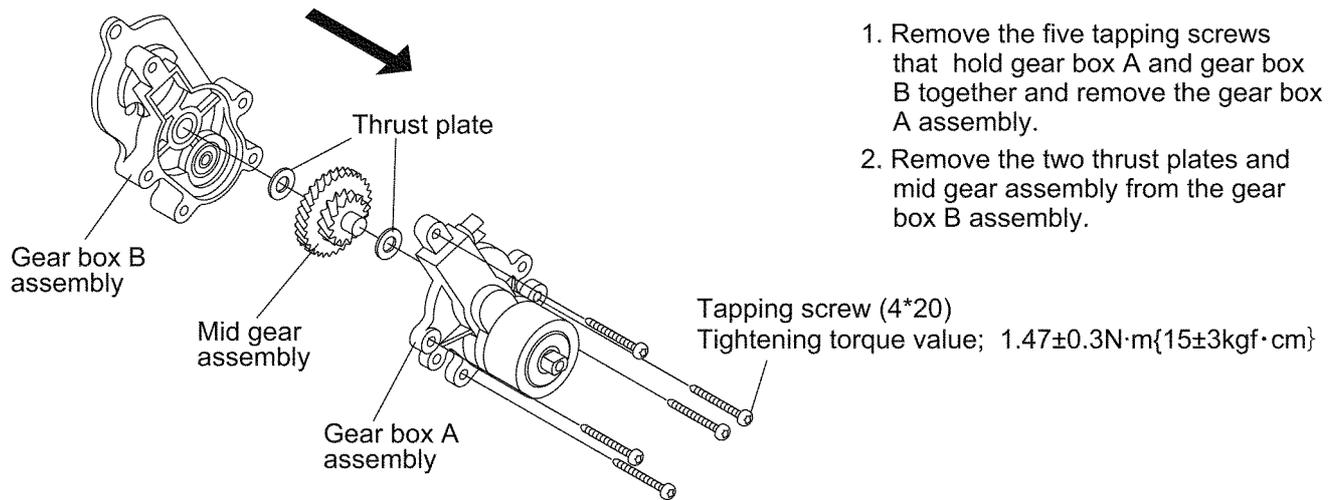
Connecting and disconnecting the connector



Grease : PERMALUB CPL501
Order number : WEY003W8957

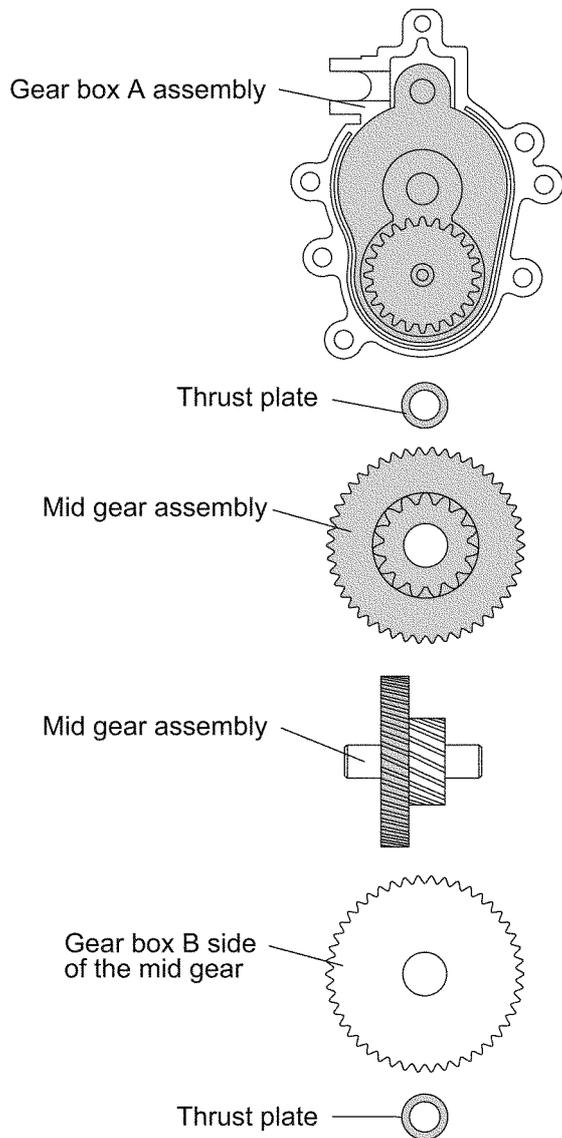


4.9. Removing the mid gear assembly and thrust plates



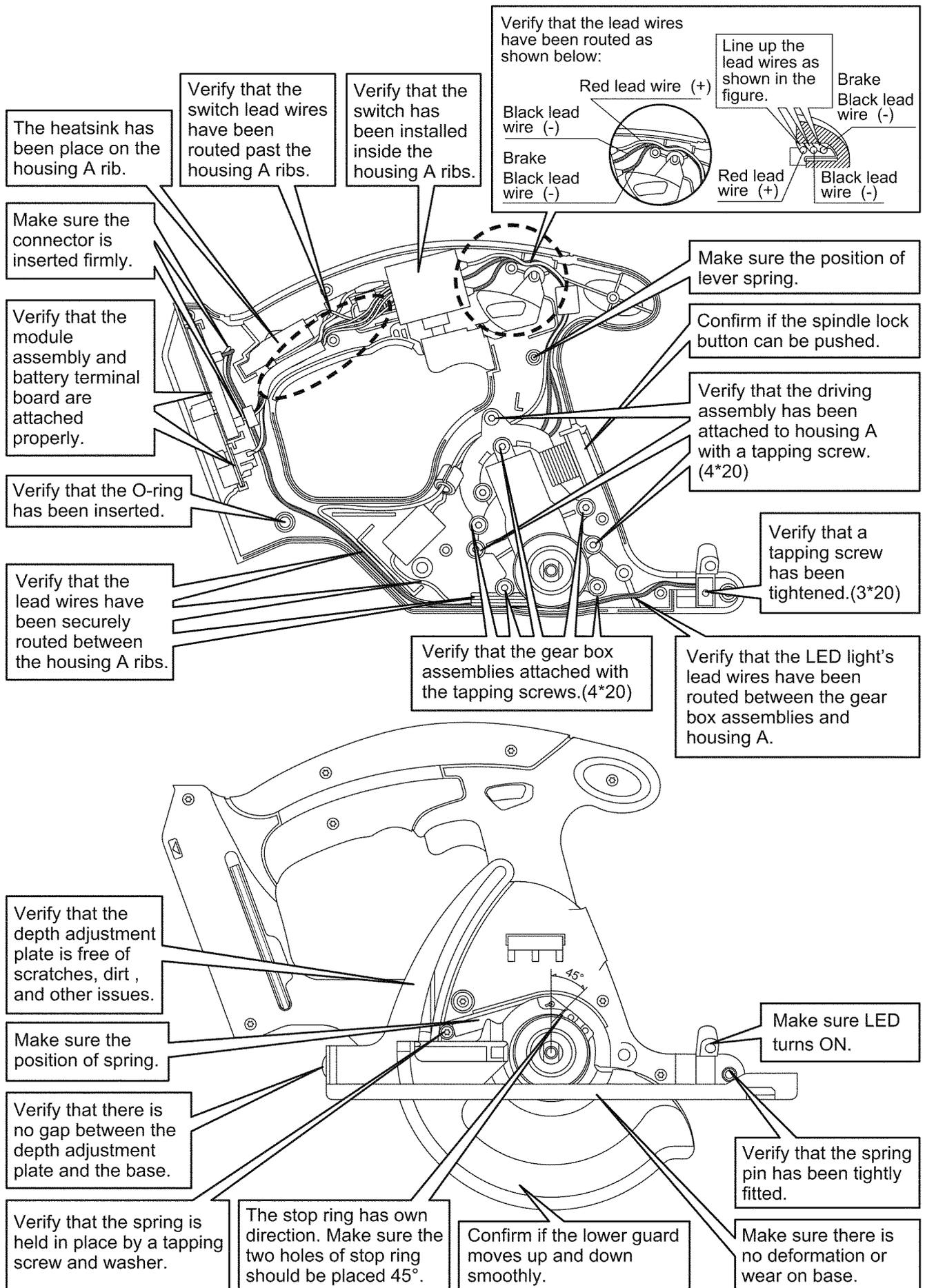
1. Remove the five tapping screws that hold gear box A and gear box B together and remove the gear box A assembly.
2. Remove the two thrust plates and mid gear assembly from the gear box B assembly.

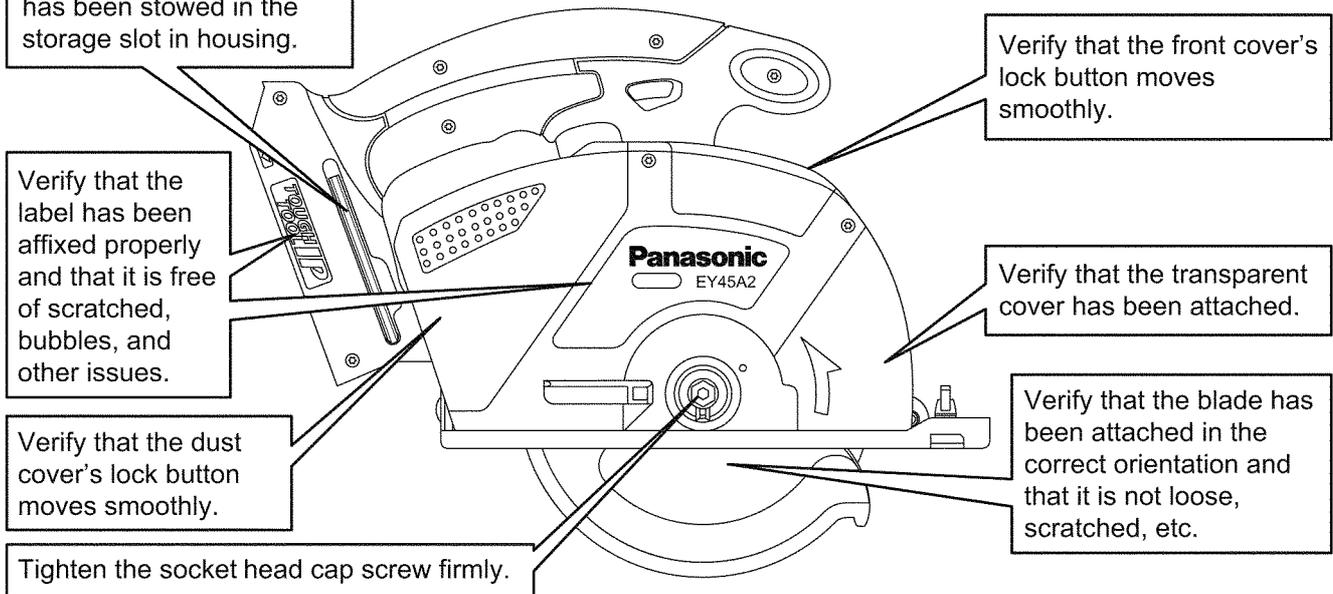
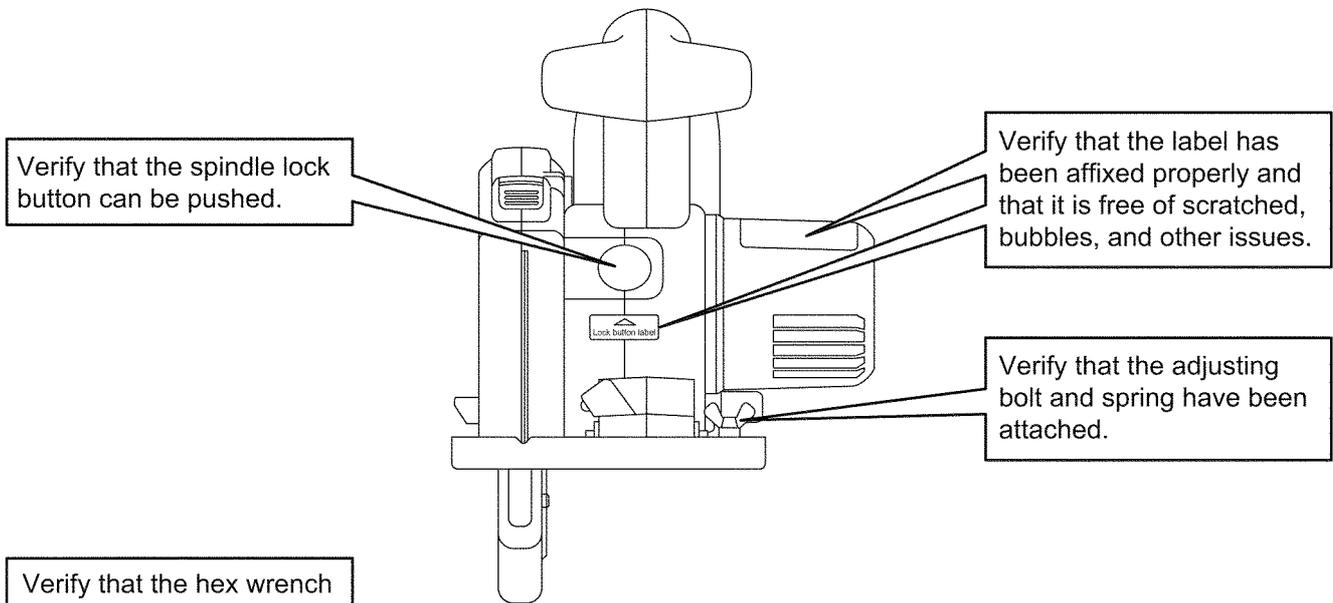
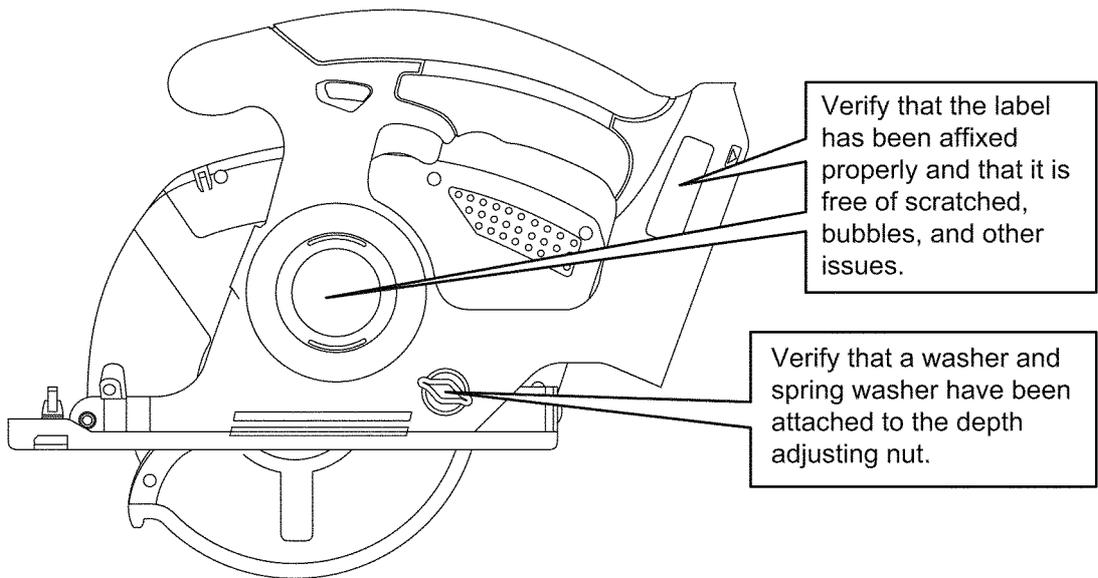
4.10. Apply grease (SUNLIGHT No.2)to the gear box A assembly, mid gear assembly, and thrust plates



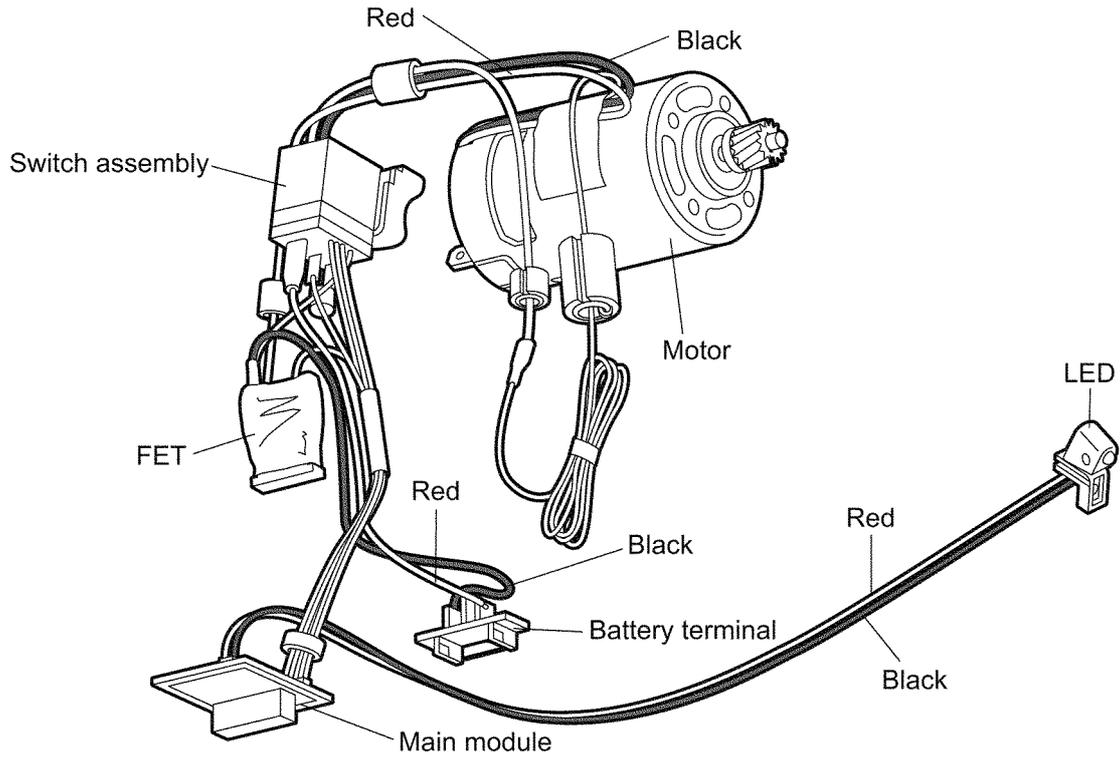
1. Apply grease to the inside of the gear box A assembly and all over the output gear.
2. Apply grease to the mid gear assembly side of the thrust plate.
3. Apply grease to both surface of the mid gear assembly on the gear box A side.
4. Apply grease to the teeth on the mid gear.
5. Do not apply grease to the gear box B side of the mid gear.
6. Apply grease to the mid gear side of the thrust plate.

4.11. Wiring and Assembly Points

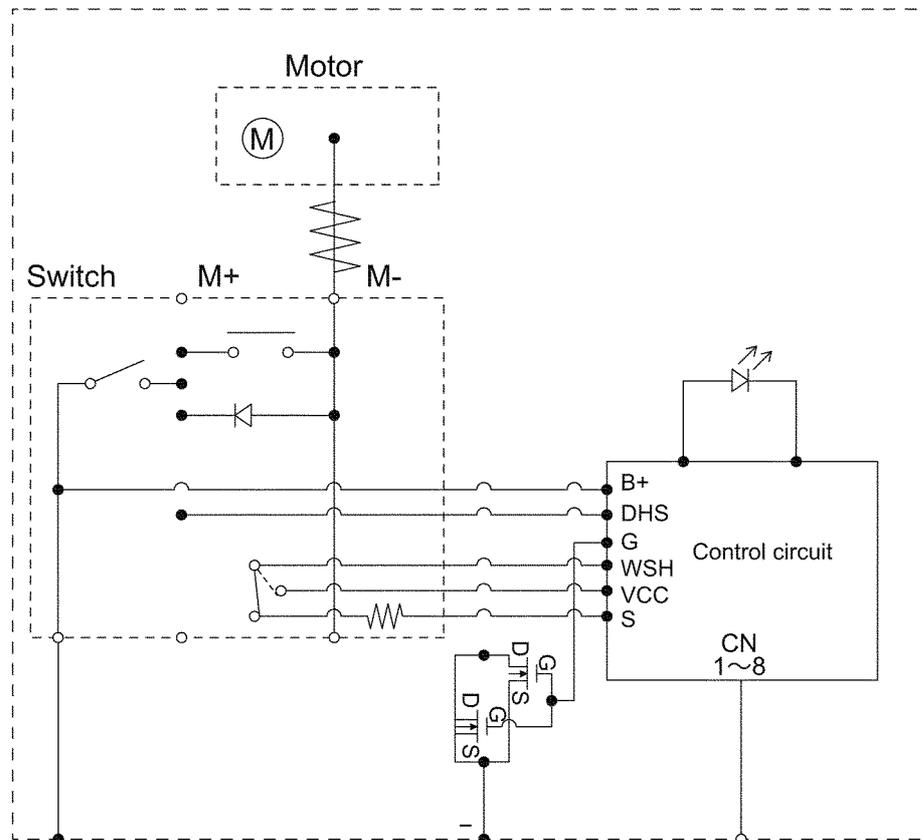




5 Wiring Connection Diagram

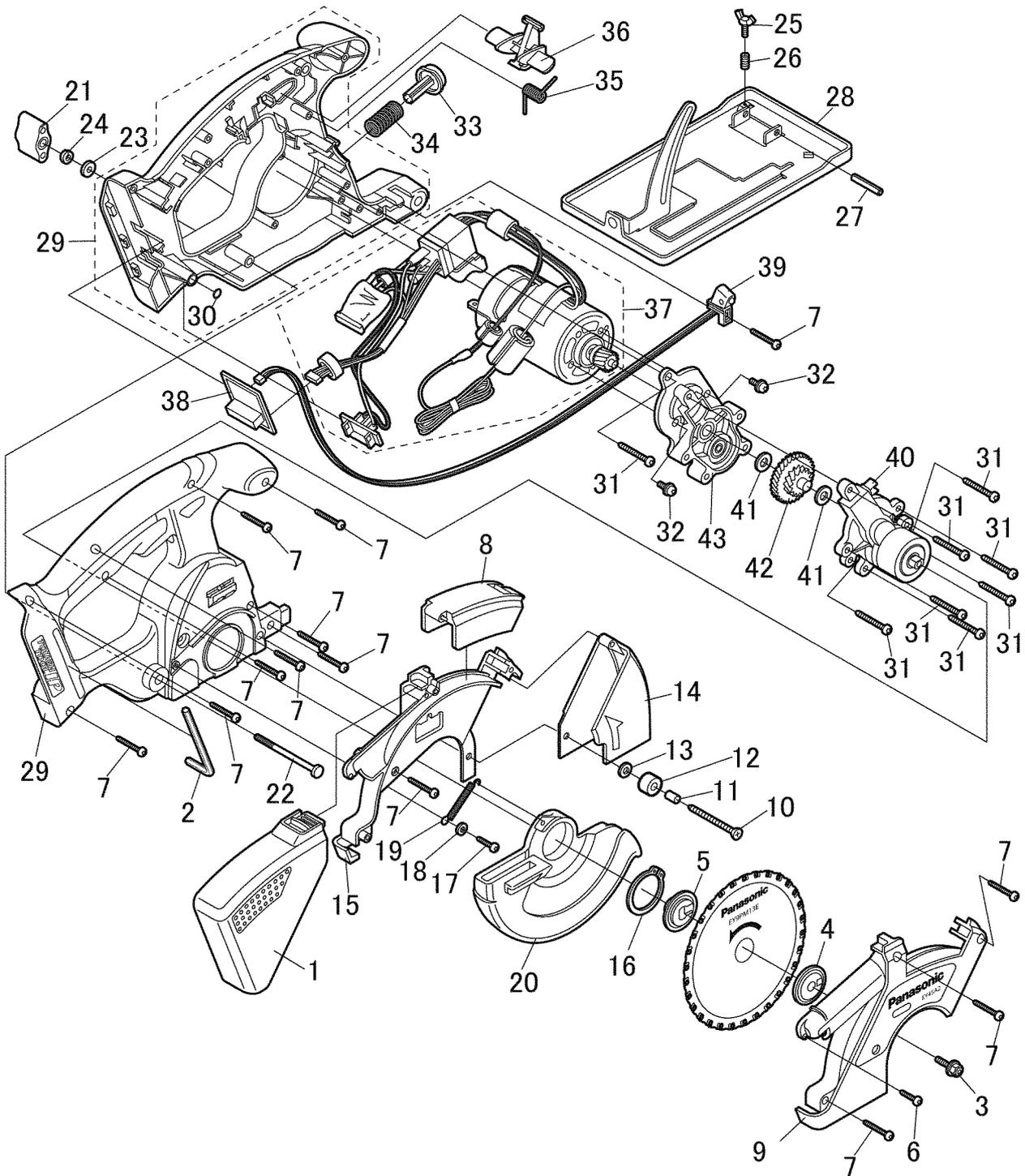


6 Schematic Diagram

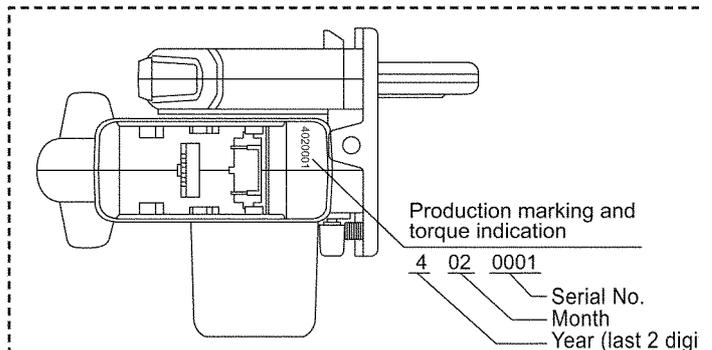


7 Exploded View and Replacement Parts List

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 Prts List

Safety	Ref. No.	Part No.	Part Name & Description	Quantity	Remarks
	1	DUST CASE ASSEMBLY	WEY45A2X3047	1	
	2	HEX WRENCH	WEY3542K7867	1	
	3	FLANGE SOCKET	WEY3530K6256	1	(M5*12)
	4	OUTER WASHER	WEY3501K1176	1	
	5	INNER WASHER	WEY3503L1166	1	
	6	TAPPING SCREW	WEY4542L9257	1	(K2*10)
	7	TAPPING SCREW	WEY45A2L9037	13	(3*20) , (13PCS/PK)
	8	FRONT COVER	WEY45A2X3107	1	
	9	SAFETY COVER B	WEY45A2H3138	1	
	10	TAPPING SCREW	WEY3503S9386	1	(4*40)
	11	RING	WEY45A2S0637	1	(φ4.2)
	12	LOWER GUARD STOPPER	WEY45A2K1747	1	
	13	WASHER	WEY4542Y6457	1	(φ4)
	14	TRANSPARENT COVER	WEY4542X3118	1	
	15	SAFETY COVER A	WEY45A2H3127	1	
	16	STOP RING	WEY3503L0426	1	
	17	TAPPING SCREW	WEY45A2L9027	1	(K3*12)
	18	WASHER	WEY4542S6457	1	(φ3)
	19	SPRING	WEY3503L0926	1	
	20	LOWER BLADE GUARD	WEY3530K1198	1	
	21	DEPTH ADJUSTING NUT	WEY3503K0896	1	
	22	SQUARE SCREW	WEY4542L6537	1	(M5)
	23	WASHER	WEY45A2S6397	1	(φ5)
	24	SPRING WASHER	WEY45A2S6447	1	(φ5)
	25	ADJUSTING BOLT	WEYT502K6487	1	
	26	SPRING	WEY3503K0196	1	
	27	SPRING PIN	WEY3500K0356	1	
	28	BASE	WEY4542S3427	1	
	29	HOUSING AB SET	WEY45A2H3079	1	(For EUROPE)
	29	HOUSING AB SET	WEY45A2H3070	1	(For OCEANIA)
	30	O RING	WEY3530L0976	1	
	31	TAPPING SCREW	WEY3503K6206	1	(K4*20)
	32	TORX SEMS SCREW	WEY45A2S6087	2	(5*9) , (2PCS/PK)
	33	SPINDLE LOCK BUTTON	WEY4542H0367	1	
	34	LOCK BUTTON SPRING	WEY3500K0196	1	(15.4*37)
	35	OFF LOCK SPRING	WEYT502L0916	1	
	36	OFF LOCK LEVER	WEY4542H3237	1	
	37	MOTOR SWITCH ASSEMBLY	WEY45A2L1008	1	
	38	MODULE ASSEMBLY	WEY45A2L2107	1	
	39	LED ASSEMBLY	WEY4542L2118	1	
	40	GEAR BOX A ASSEMBLY	WEY45A2K1767	1	
	41	THRUST PLATE	WEY3503L0846	1	
	42	MID GEAR ASSEMBLY	WEY45A2L1437	1	
	43	GEAR BOX B ASSEMBLY	WEY45A2K1797	1	
	-	BATTERY PACK COVER	WEY9L40R2788	1	
	-	TOOL CASE	WEY9642A7018	1	
	-	OPERATING INSTRUCTIONS	WEY45A2K8109	1	
	-	SUNLIGHT GREASE	WEY6705X5527	1	
	-	GREASE (PERMALUB)	WEY003W8957	1	