

PRODUCT NAME

36 V Cordless Circular Saw

Model 165 mm C 3606DB

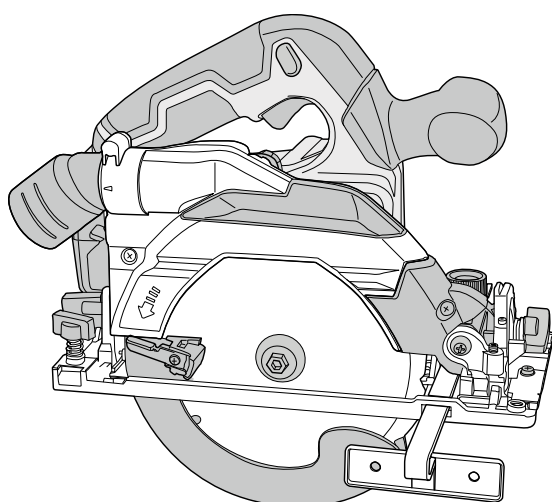
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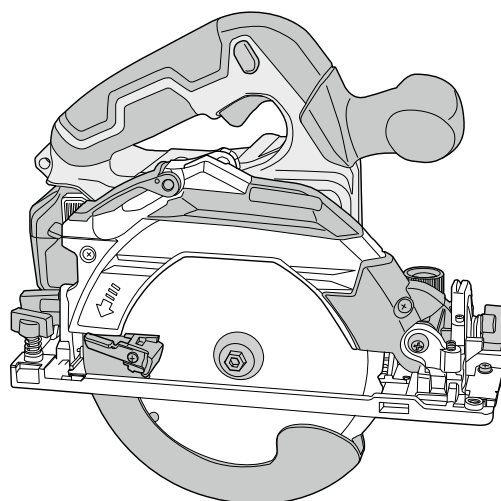
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(For EU)



(Except for EU)

Koki Holdings Co., Ltd.

Overseas Sales Management Dept.

REPAIR GUIDE

WARNING: Be sure to remove the battery from the main body before starting repair or maintenance work. If the switch is activated inadvertently with the battery still mounted on the main body, the motor may turn unexpectedly and could cause serious injury.

1. Precautions on disassembly and reassembly

[Bold] numbers in the description below correspond to the item numbers in the parts list and exploded assembly diagram for the Model C 3606DB.

Disassembly

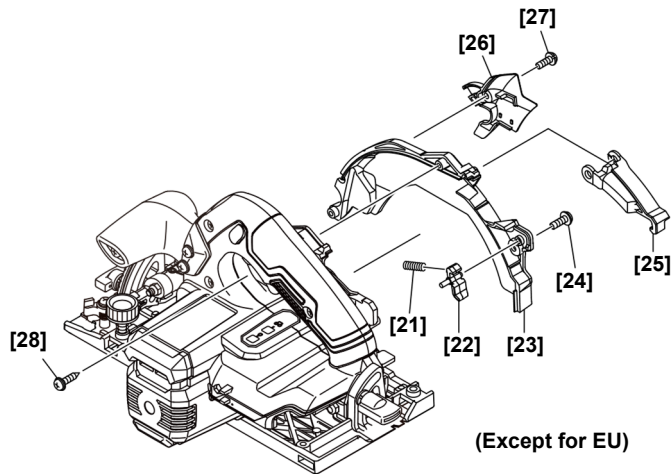
CAUTION: Prior to disassembly of the cordless circular saw, remove the TCT Saw Blade [18] according to the handling instructions to protect the saw blade teeth and yourself.

1. Removal of saw cover (A) (except for EU)

- (1) Remove the Dust Cover [25].
- (2) Remove the Machine Screw (W/Washer) M4 x 8 (Black) [27] and remove Flow Guide (C) [26].
- (3) Remove the Machine Screw (W/Washer) M4 x 12 (Black) [24] and two Tapping Screws (W/Flange) D4 x 16 (Black) [28], then remove Saw Cover (A) [23] together with Spring (F) [21] and Lever [22].

NOTE: Remove Saw Cover (B) [30] (for EU) after removing the housing ass'y (see page 3).

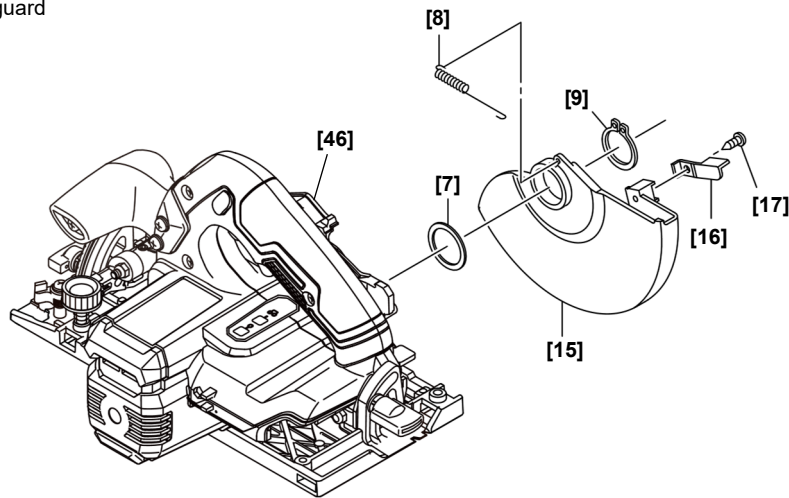
- Removal of saw cover (A) (except for EU)



2. Removal of the lower guard

- (1) Remove the Retaining Ring for D22 Shaft [9] using a retaining ring puller.
- (2) Release the hook of the Return Spring [8] from the Gear Cover [46], and then remove the Lower Guard [15] and the Washer [7].
- (3) Remove the Tapping Screw D4 x 10 (Black) [17] and then remove the Knob [16].

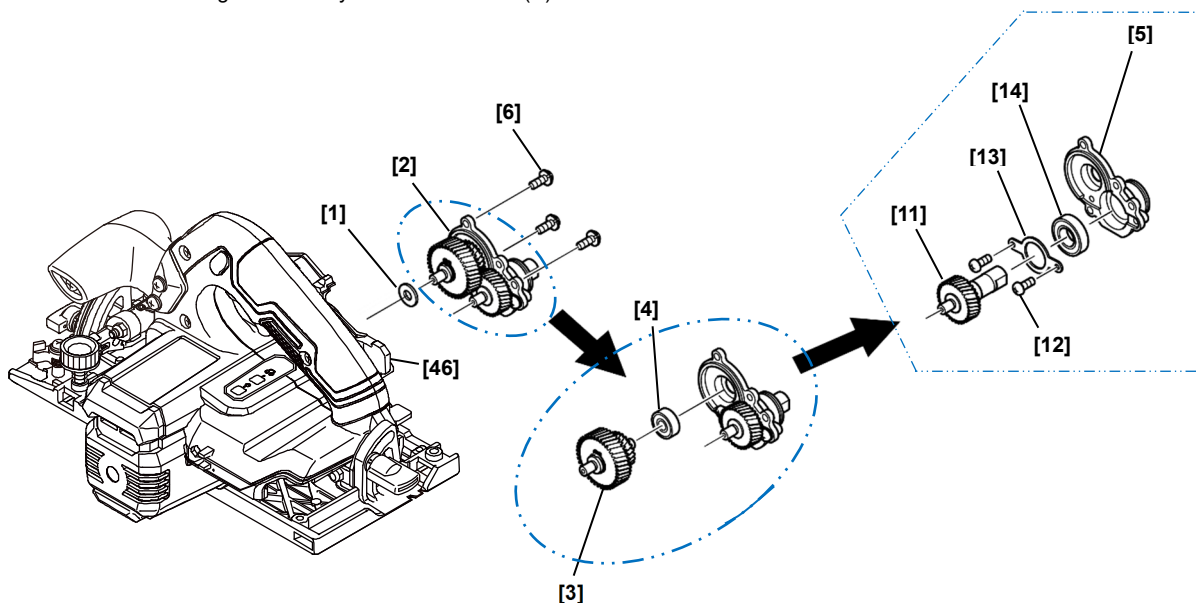
• Removal of the lower guard



3. Removal of the bearing holder ass'y and second shaft (A)

- (1) Remove the three Machine Screws (W/Sp. Washer) M4 x 12 [6] from the Bearing Holder Ass'y [2]. Tap the end of the Gear Cover [46] lightly with a plastic hammer and remove the Bearing Holder Ass'y [2]. Tap the end of the Bearing Holder [5] lightly with a plastic hammer and remove Second Shaft (A) [3] together with the Ball Bearing 606VV [4].
- (2) Remove the two Machine Screws M3 x 8 [12]. Push Spindle Gear Set (A) [11] from the Ball Bearing 6901VV [14] side and remove Spindle Gear Set (A) [11] together with the Bearing Cover [13].
- (3) Remove Washer (A) [1] from the gear chamber in the Gear Cover [46] where Second Shaft (A) [3] was mounted.

• Removal of the bearing holder ass'y and second shaft (A)



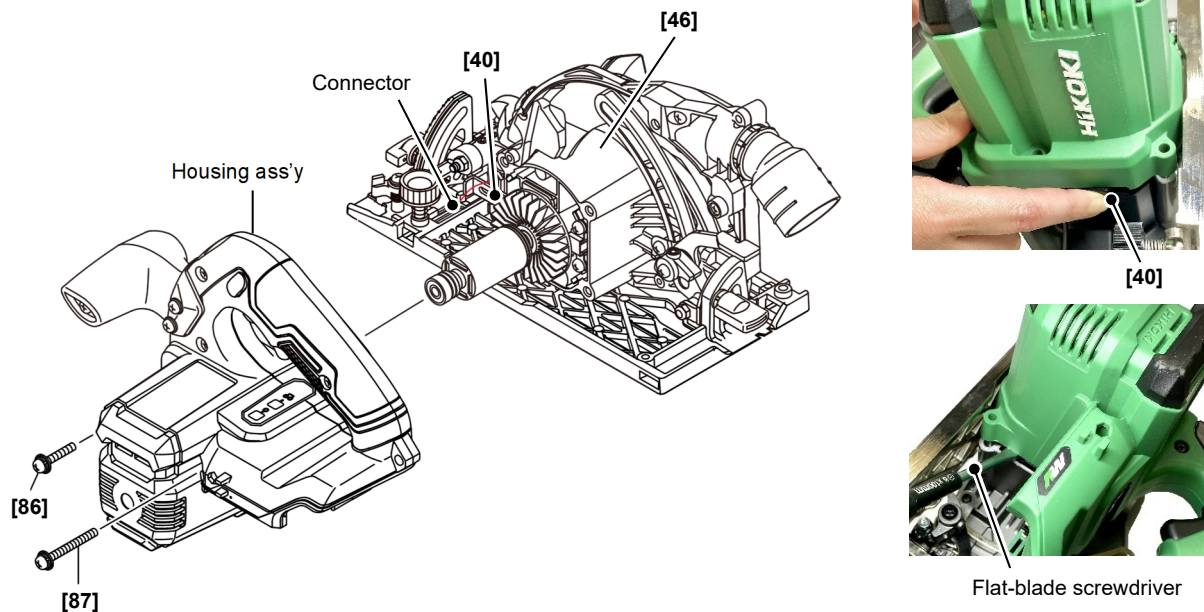
4. Removal of the housing ass'y

- (1) Remove the three Machine Screws (W/Washers) M5 x 30 (Black) [86] and Machine Screw (W/Washers) M5 x 50 (Black) [87]. While pressing the Lock Lever [40], insert a flat-blade screwdriver into the clearance between the Gear Cover [46] and the housing ass'y to remove the housing ass'y.

CAUTION: The Lock Lever [40] may be deformed if the housing ass'y is removed without pressing the Lock Lever [40].

- (2) Disconnect the connector of Stator Sensor PCB Ass'y (A) [34] before removing the housing ass'y completely.

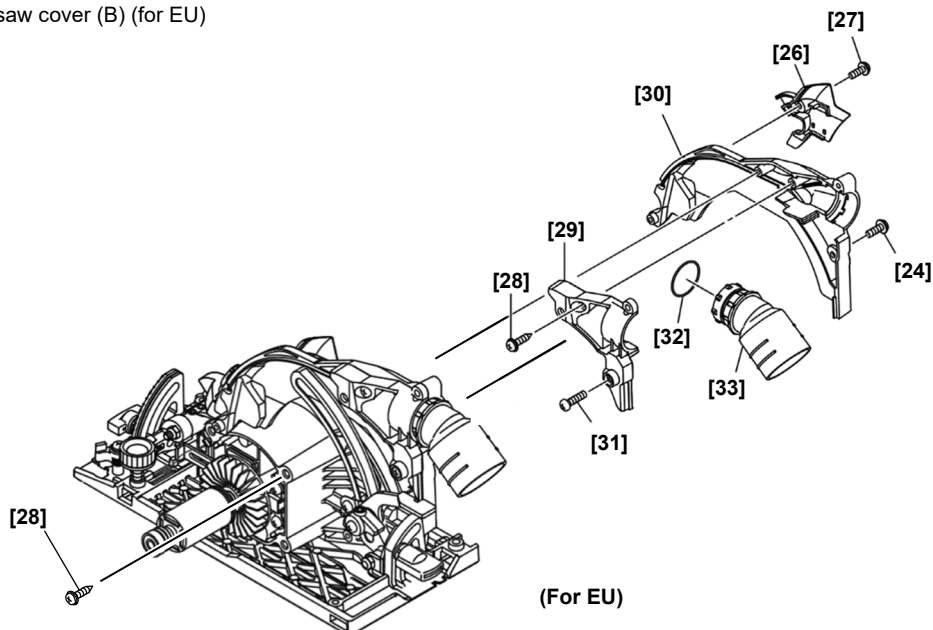
• Removal of the housing ass'y



5. Removal of saw cover (B) (for EU)

- (1) Remove the Machine Screw (W/Washer) M4 x 8 (Black) [27] and remove Flow Guide (C) [26].
- (2) Remove the Machine Screw (W/Washer) M4 x 12 (Black) [24], three Tapping Screws (W/Flange) D4 x 16 (Black) [28], and FT Machine Screw M4 x 14 [31], then remove Saw Cover (B) [30], Nozzle Cover [29], O-ring (S-26) [32], and Dust Nozzle (B) [33].

• Removal of saw cover (B) (for EU)

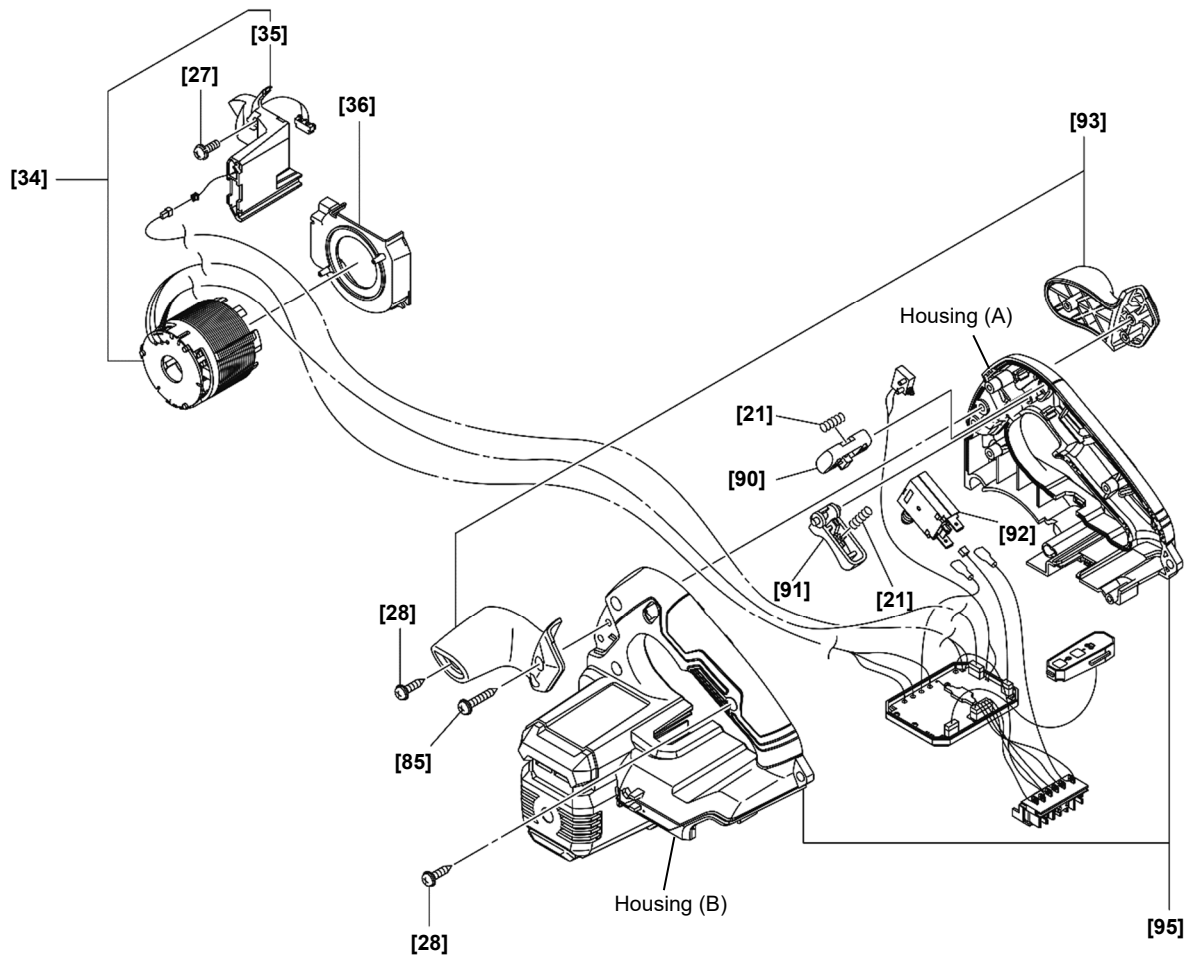


6. Removal of the LED and stator sensor PCB ass'y (A)

- (1) Remove the Machine Screw (W/Washer) M4 x 8 (Black) [27] and remove the LED [35].
- (2) Remove the Tapping Screw (W/Flange) D4 x 16 (Black) [28] and Tapping Screw (W/Flange) D4 x 30 (Black) [85]. Then remove Sub Handle Ass'y (A) [93].
- (3) Remove the four Tapping Screws (W/Flange) D4 x 16 (Black) [28] and remove housing (A) of the Housing Set (Green) [95].
- (4) Remove the Trigger [91], Knob [90], and Spring (F) [21] from housing (B). Then, remove Stator Sensor PCB Ass'y (A) [34] together with the Switch [92] and Fan Guide [36].

NOTE: Be careful not to lose Spring (F) [21].

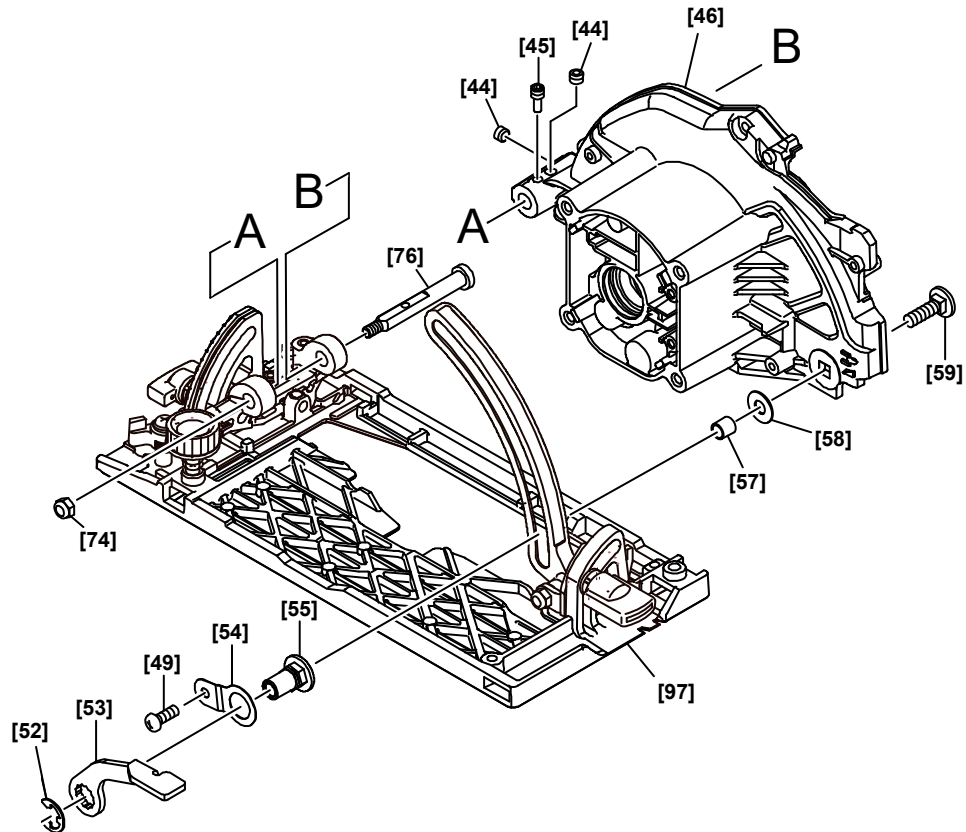
• Removal of the LED and stator sensor PCB ass'y (A)



7. Removal of the base ass'y and gear cover

- (1) Remove the Retaining Ring (E-type) for D8 Shaft [52] and remove the Lever [53].
- (2) Remove the Machine Screw M4 x 8 (Black) [49] and remove the Spring Plate [54].
- (3) Pull out the Bolt (Square) M6 [59] and remove Lock Nut (B) [55], Spacer (A) [57], and Washer (S) [58].
- (4) Remove the two Nylock Set Screws M6 [44] and Hex. Socket Pin M5 [45] from the front of the Gear Cover [46].
- (5) Remove the Nylon Nut M5 [74] and pull out the Hinge Shaft [76] from the Gear Cover [46]. Then remove the Base Ass'y [97].

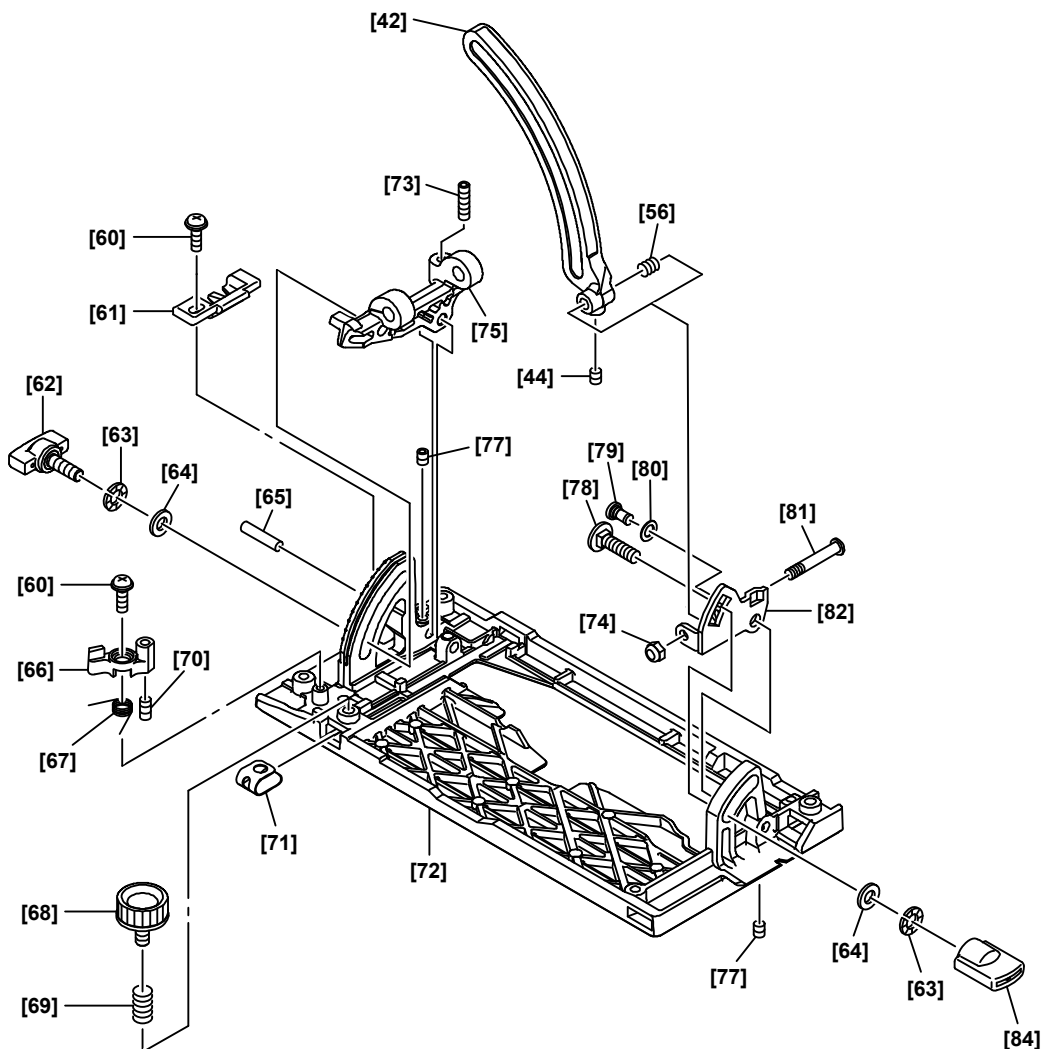
• Removal of the base ass'y and gear cover



8. Removal of the base, bevel piece, and link

- (1) Remove the Machine Screw (W/Washer) M4 x 8 (Black) [60], and then remove the Guide Piece [61].
- (2) Remove the Knob Bolt M6 x 17 [68], and then remove the Spring [69].
- (3) Remove the Machine Screw (W/Washer) M4 x 8 (Black) [60], and then remove the Stopper Lever [66] and Spring (B) [67].
- (4) Remove Wing Bolt (A) [62], and then remove the Super Lock Washer M6 [63] and Bolt Washer M6 [64].
- (5) Remove the Seal Lock Hex. Socket Set Screw M5 x 6 [77] from the front of the Base [72] and pull out the Needle D5 x 23.8 [65]. Then remove the Bevel Piece [75].
- (6) Remove the Nylon Nut M5 [74] and loosen the Nylock Set Screw M6 [44]. Pull out the Special Bolt [81] and then remove the Link [42] and Spring [56].
- (7) Loosen the Wing Nut M6 [84] and remove the Super Lock Washer M6 [63], Bolt Washer M6 [64], and Bolt (Square) M6 x 22 [78].
- (8) Remove the Seal Lock Hex. Socket Set Screw M5 x 6 [77] from the back of the Base [72] and pull out the Step Pin D6 x 13 [79]. Then remove the Sub Link [82] together with Washer (B) [80].

• Removal of the base, bevel piece, and link



Reassembly

Reassembly can be accomplished by reversing the disassembly procedure. However, special attention should be given to the following items. Refer to "Lubrication points and type of lubricant" on page 10 for the grease required for reassembly.

1. Reassembly of the power supply unit and its vicinity

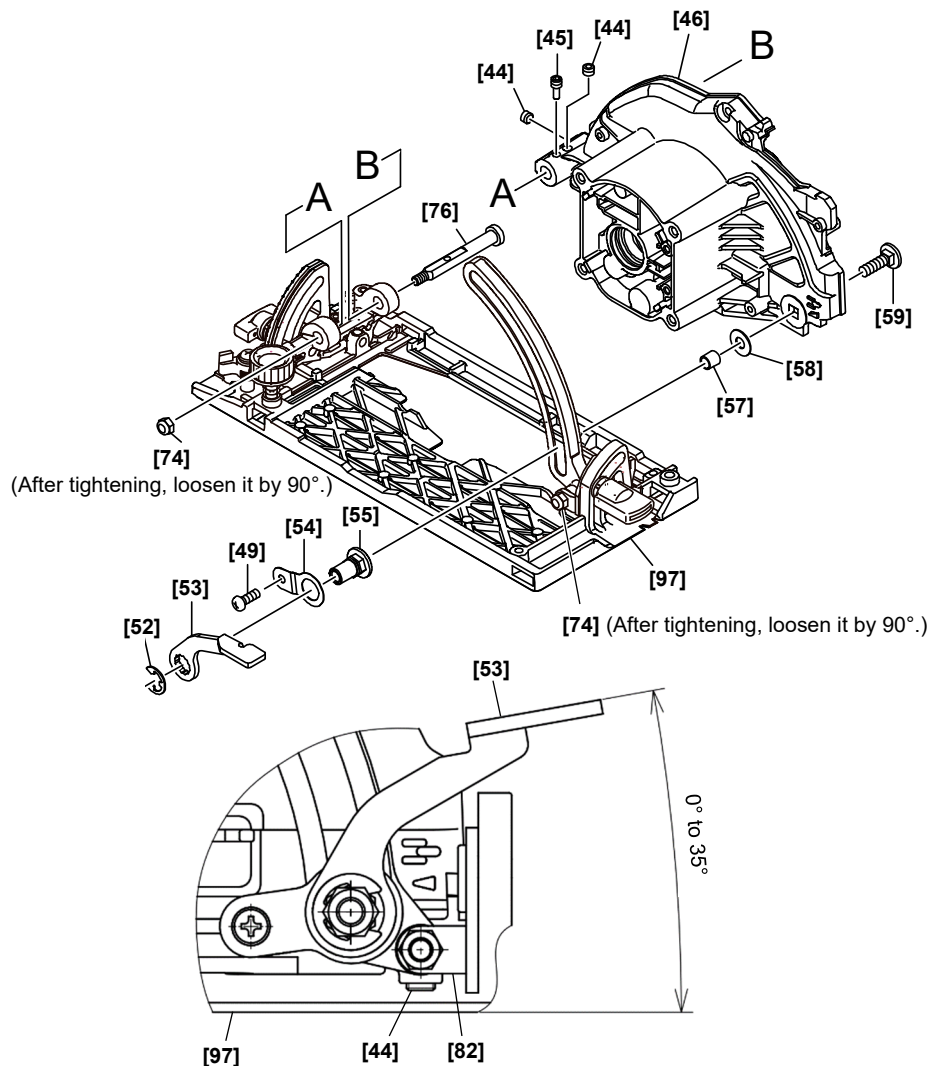
Perform wiring according to the diagrams shown on pages 11 and 12 when replacing Stator Sensor PCB Ass'y (A) [34], LED [35] or the Switch [92].

NOTE: Black oxide or separated plating on terminal support contacts to be connected to the battery will increase the temperature of the contacts and damage the battery or tool body. Replace Stator Sensor PCB Ass'y (A) [34] with a new one in such a case.

2. Mounting the base ass'y, gear cover, and lever

- (1) Mount the Base Ass'y [97] to the Gear Cover [46] so that the notch on the Hinge Shaft [76] faces upward.
- (2) Tighten Lock Nut (B) [55] at $3.0 \pm 0.5 \text{ N}\cdot\text{m}$ $\{30 \pm 5 \text{ kgf}\cdot\text{cm}\}$ and fit the Lever [53] on Lock Nut (B) [55] at an angle between 0° and 35° with respect to the base bottom. Then secure it with the Retaining Ring (E-type) for D8 Shaft [52].

- Mounting the base ass'y, gear cover, and lever



3. Reassembly of the lock lever unit

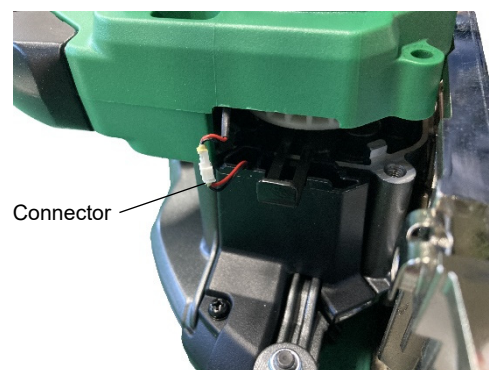
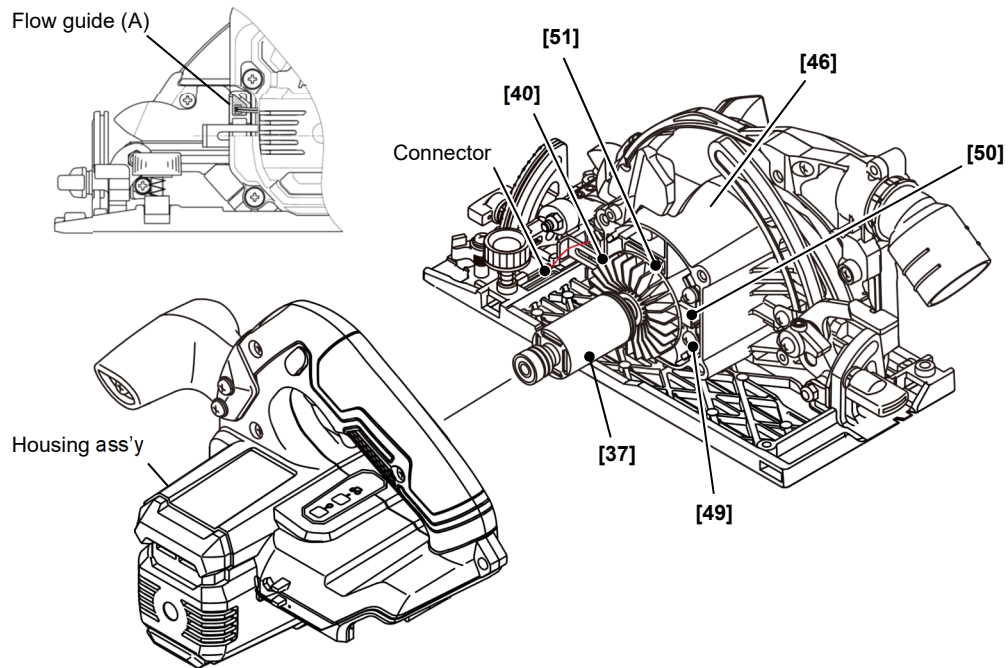
- (1) Fit the Spring [51] in the groove of the Gear Cover [46].
- (2) Insert the Lock Lever [40] between the fan and the ball bearing of Rotor Ass'y (A) [37] and then insert Rotor Ass'y (A) [37] into the Gear Cover [46].
- (3) Tighten the Machine Screw M4 x 8 (Black) [49] to mount Plate (L) [50].

NOTE: After mounting, move the Lock Lever [40] and check that the Lock Lever [40] returns to the original position.

- (4) Insert the housing ass'y into the Gear Cover [46]. Before inserting the housing ass'y completely, connect the connector of Stator Sensor PCB Ass'y (A) [34].

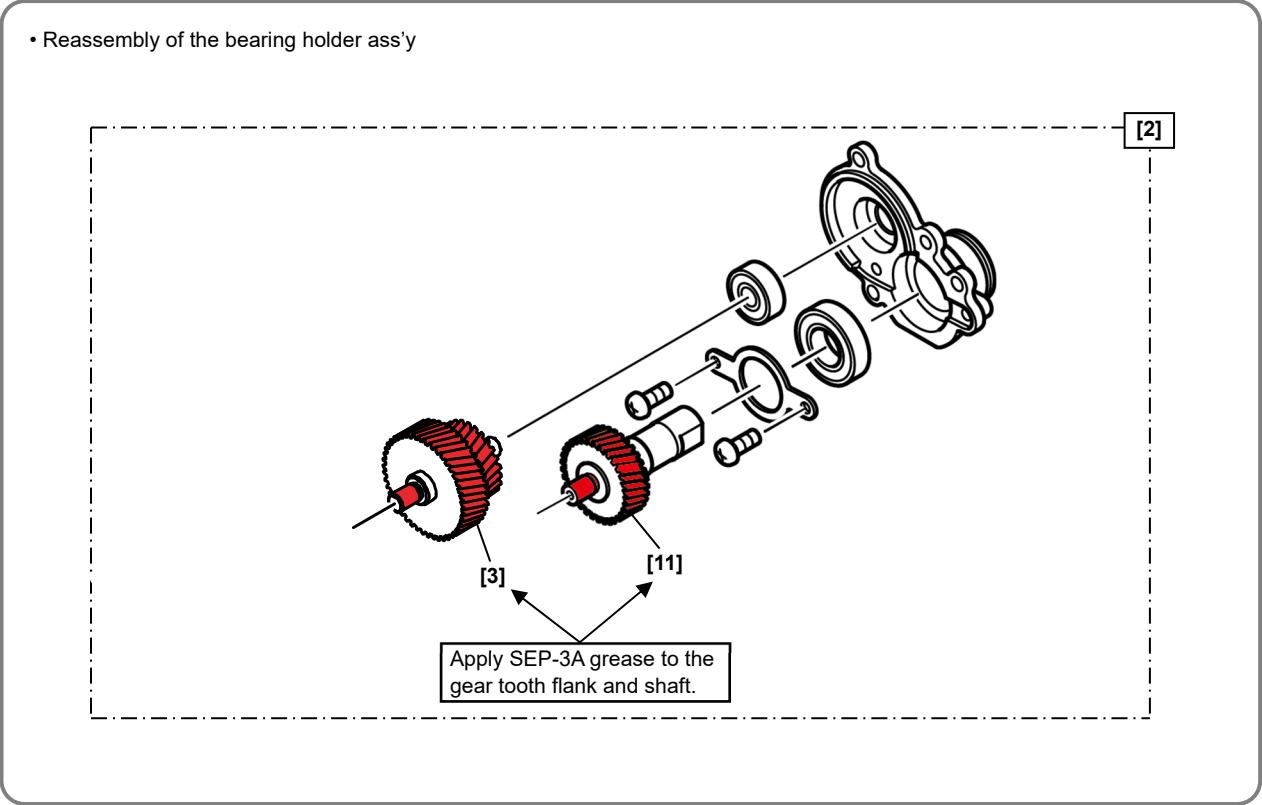
NOTE: Put the connector in flow guide (A) (diagonally shaded area in the figure below).

• Reassembly of the lock lever unit



4. Reassembly of the bearing holder ass'y

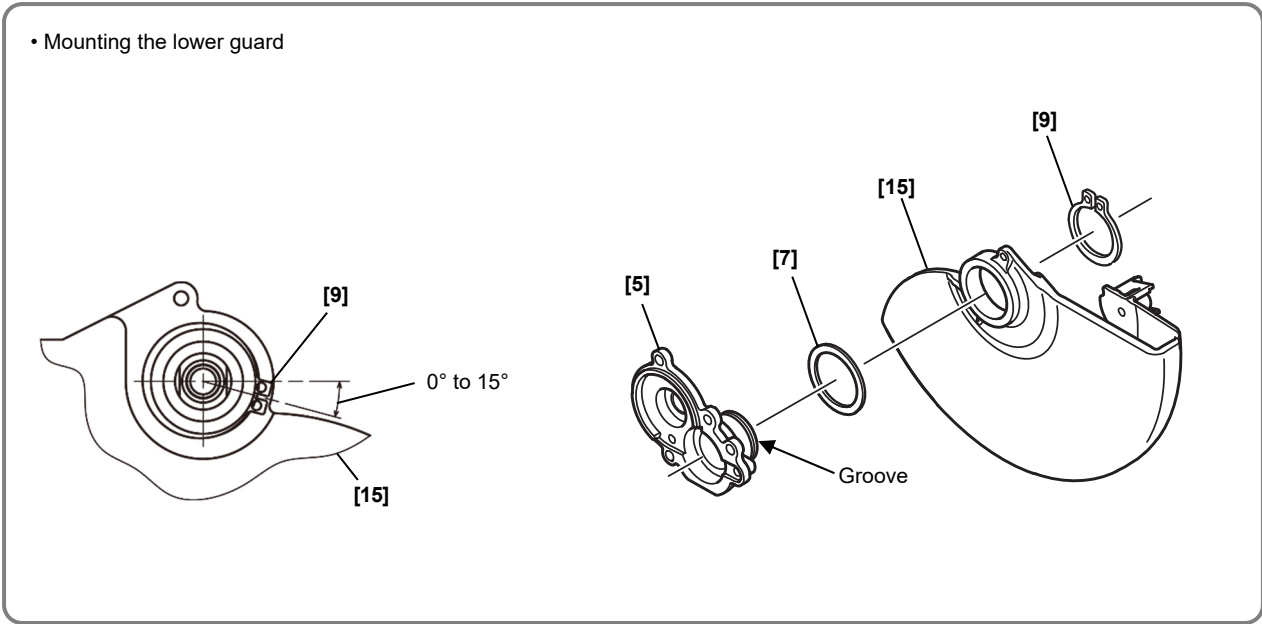
Apply SEP-3A grease to the following portions.



5. Mounting the lower guard

Mount the Retaining Ring for D22 Shaft [9] as shown in the following figure.

NOTE: Be sure to fit the Retaining Ring for D22 Shaft [9] firmly into the groove of the Bearing Holder [5].



Lubrication points and type of lubricant

Apply specified amount of SEP-3A grease to the following portions.

- Pinion tooth flank of Rotor Ass'y (A) [37] Approx. 1.0 g
- Gear tooth flank and shaft of Spindle Gear Set (A) [11] Approx. 1.5 g
- Gear tooth flank of Second Shaft (A) [3] Approx. 2.5 g

Prepare the following grease as necessary.

Item	Registered part name	Net weight	Code No.
Grease (SEP-3A)	Grease (SEP-3A) (100 g)	100 g	930035
	Grease (SEP-3A) (2.5 kg)	2.5 kg	930038

Tightening torque

Location		Name of screw	No. used	Tightening torque	
				N•m	kgf•cm
Main body	Bearing Holder Ass'y [2]	Machine Screw (W/Sp. Washer) M4 x 12 [6]	3	1.8 ± 0.4	18 ± 4
		Machine Screw M3 x 8 [12]	2	0.8 ± 0.2	8 ± 2
	Lower Guard [15]	Tapping Screw D4 x 10 (Black) [17]	1	1.8 ± 0.4	18 ± 4
	TCT Saw Blade [18]	Hex Flange Bolt [20]	1	8.3 ± 0.5	85 ± 5
	Saw Cover (A) [23]	Machine Screw (W/Washer) M4 x 12 (Black) [24]	1	1.8 ± 0.4	18 ± 4
		Tapping Screw (W/Flange) D4 x 16 (Black) [28]	2	2.0 ± 0.5	20 ± 5
	Flow Guide (C) [26]	Machine Screw (W/Washer) M4 x 8 (Black) [27]	1	1.0 ± 0.2	10 ± 2
	Housing (B) of Housing Set (Green) [95]	Tapping Screw (W/Flange) D4 x 16 (Black) [28]	4	2.0 ± 0.5	20 ± 5
		Machine Screw (W/Washers) M5 x 30 (Black) [86]	3	3.4 ± 0.7	35 ± 7
		Machine Screw (W/Washers) M5 x 50 (Black) [87]	1	3.4 ± 0.7	35 ± 7
	LED [35]	Machine Screw (W/Washer) M4 x 8 (Black) [27]	1	1.0 ± 0.2	10 ± 2
	Gear Cover [46]	Flat Hd. Screw M5 x 20 [48]	1	—*1	
	Plate (L) [50]	Machine Screw M4 x 8 (Black) [49]	2	1.8 ± 0.4	18 ± 4
Connection	Lever [53]	Machine Screw M4 x 8 (Black) [49]	1	1.8 ± 0.4	18 ± 4
		Lock Nut (B) [55]	1	3.0 ± 0.5	30 ± 5
	Hinge Shaft [76]	Hex. Socket Pin M5 [45]	1	2.5 ± 0.5	25 ± 5
		Nylon Nut M5 [74]	1	1.0 ± 0.2	10 ± 2*2
		Nylock Set Screw M6 [44]	1	3.4 ± 0.7	35 ± 7
Base ass'y	Guide Piece [61]	Machine Screw (W/Washer) M4 x 8 (Black) [60]	1	1.8 ± 0.4	18 ± 4
	Stopper Lever [66]	Machine Screw (W/Washer) M4 x 8 (Black) [60]	1	1.8 ± 0.4	18 ± 4
	Bevel Piece [75]	Seal Lock Hex. Socket Set Screw M5 x 6 [77]	1	3.4 ± 0.7	35 ± 7
	Link [42]	Nylock Set Screw M6 [44]	1	3.4 ± 0.7	35 ± 7
	Sub Link [82]	Seal Lock Hex. Socket Set Screw M5 x 6 [77]	1	3.4 ± 0.7	35 ± 7
		Nylon Nut M5 [74]	1	1.0 ± 0.2	10 ± 2*2

*1: Tighten the Flat Hd. Screw M5 x 20 [48] until it is flush with the Cushion [47].

*2: After tightening the Nylon Nut M5 [74], loosen it by 90°.

Checking after reassembly

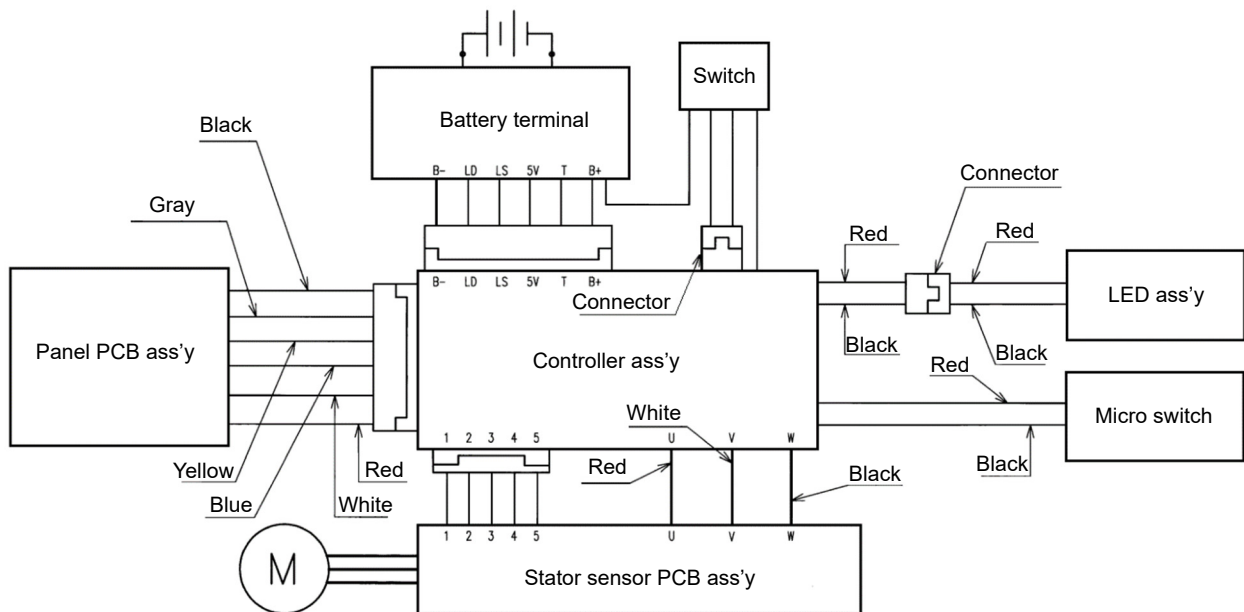
Check the following after reassembly.

- (1) Check that the Lower Guard **[15]** moves smoothly and returns within the operating range (maximum to minimum cutting depth, tilt angle of -5° to 45°) of the Base Ass'y **[97]**.
- (2) Check that the Base Ass'y **[97]** works smoothly. (Adjust the cutting depth and tilt angle.)
- (3) Check that the direction indicated by the arrow mark on the TCT Saw Blade **[18]** matches that of the arrow mark on the saw cover.
- (4) Check that the runout of the saw blade is 0.5 mm or less at 140 mm dia. position.
- (5) Check that the LED light on the switch panel does not turn on when installing the battery.
- (6) Check for the switch operation, mode select function, and LED light according to the handling instructions.
- (7) Before checking parallelism, loosen the two Nylock Set Screws M6 **[44]** and then tighten them.
- (8) Perform fine tuning and checking of parallelism, tilt angle, and guide piece position according to the handling instructions.
- (9) Perform checking according to the handling instructions.

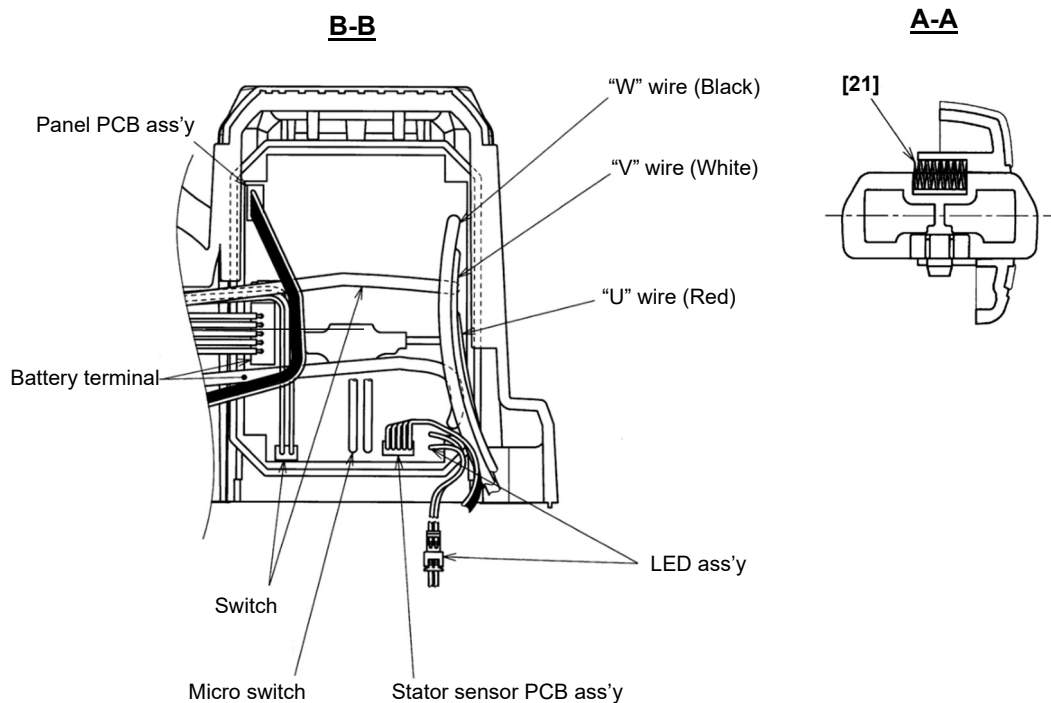
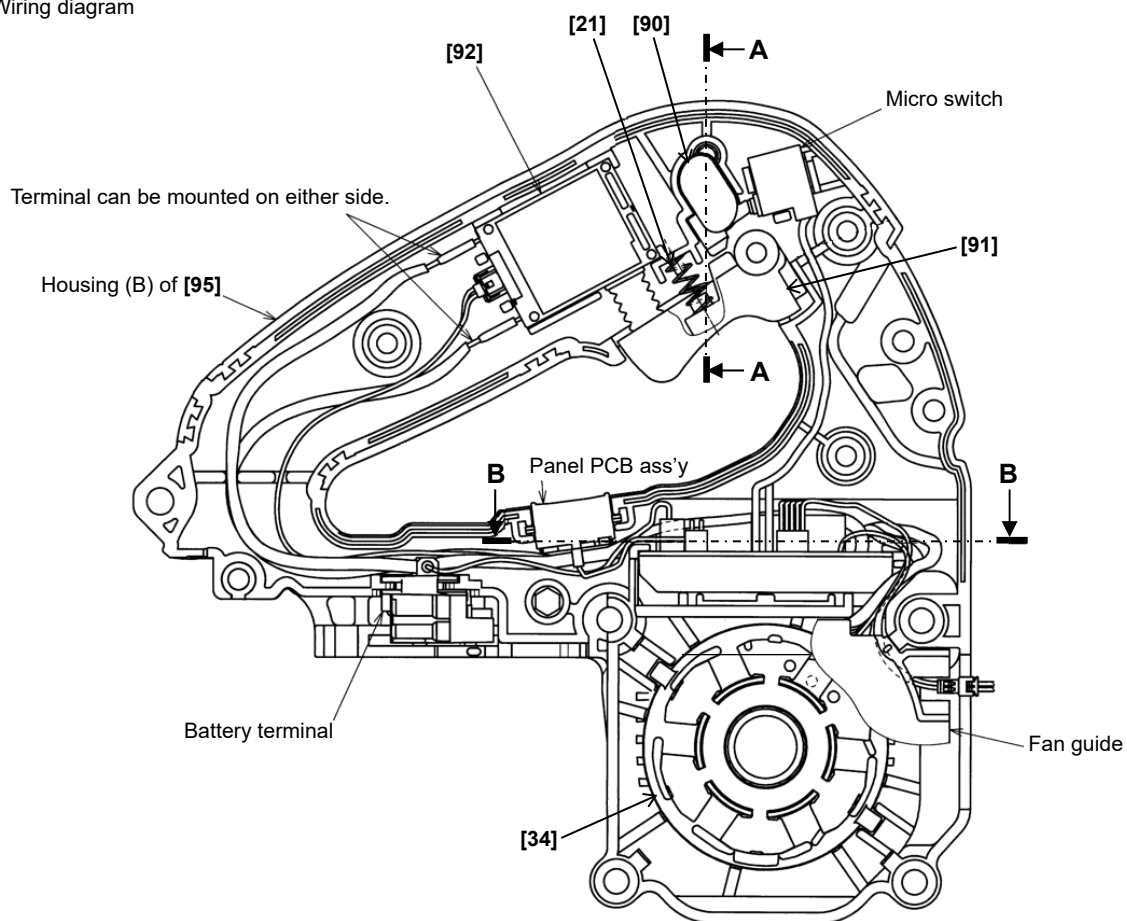
Wiring diagram

Connect the internal wires correctly as illustrated in the diagrams below. If the internal wires are incorrectly connected, the motor may not turn or other problems could occur.

• Connecting diagram



• Wiring diagram



2. Precautions on disassembly and reassembly of the charger

Refer to the service manual of the charger Model UC 18YSL3 for precautions on disassembly and reassembly of the charger.