

# TECHNICAL INFORMATION



PRODUCT

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**Model No.** ▶ BDA340/BDA350

**Description** ▶ 14.4V/18V Cordless Angle Drill 10mm (3/8")

## CONCEPT AND MAIN APPLICATIONS

Models BDA340 and BDA350 have been developed as the DC version tools of Model DA3010F, featuring:

- Compact and lightweight design obtained by using Li-ion battery as a power unit
- High power 4-pole motor for excellent drilling performance

Sister tools featuring Keyless drill chuck are also available as Models BDA341/BDA351.

(See Technical Information of BDA341/BDA351 for detailed information.)

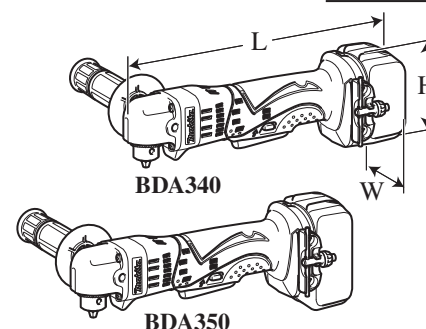
These products are available in the following variations.

### BDA340

Model No.	Battery		Battery cover	Charger	Plastic carrying case	Offered to		
	type	quantity						
BDA340Z	No	---	No	No	No	All countries		
BDA340	BL1430 (Li-ion 3.0Ah)	2	1	DC18RA	Yes	North America		
BDA340RFE		1	No			All countries except North America		
BDA340RF								

### BDA350

Model No.	Battery		Battery cover	Charger	Plastic carrying case	Offered to		
	type	quantity						
BDA350Z	No	---	No	No	No	All countries		
BDA350	BL1830 (Li-ion 3.0Ah)	2	1	DC18RA	Yes	North America		
BDA350RFE		1	No			All countries except North America		
BDA350RF								



Dimensions: mm (")		
	BDA340	BDA350
Length (L)	314 (12-3/8)	
Width (W)	79 (3-1/8)	
Height (H)	97 (3-13/16)	115 (4-1/2)

## Specification

Model		BDA340	BDA350
Battery	Voltage: V	14.4	18
	Capacity: Ah	3.0	
	Cell	Li-ion	
Max output: W		230	280
No load speed: min-1=rpm		0 - 1,700	0 - 1,800
Drill chuck type		Keyed	
Capacity of drill chuck: mm (")		1.5 (1/16) - 10 (3/8)	
Capacity: mm (")	Steel	10 (3/8)	
	Wood	25 (1)	
Electric brake		Yes	
Variable speed control		Yes	
Reverse switch		Yes	
LED job light		Yes	
Net weight: kg (lbs)		1.5 (3.3)*	1.6 (3.5)**

\*with Battery BL1430

\*\*with Battery BL1830

## Standard equipment

Side grip ... 1 Chuck key ... 1 Key holder... 1 **Note:** The standard equipment for the tool shown above may differ by country.

## Optional accessories

Charger DC24SA (for North America only) Battery BL1430 (for BDA340) Drill bits for wood Fast charger DC18RA  
Charger DC24SC (except for North America) Battery BL1830 (for BDA350) Drill bits for steel Belt clip

## ► Repair

**CAUTION: Remove the bit and the battery from the machine for safety before repair/ maintenance in accordance with the instruction manual!**

### [1] NECESSARY REPAIRING TOOLS

Code No.	Description	Use for
1R036	Bearing setting plate 17.2	Separating Spur gear 29 from Spiral bevel gear 9
1R045	Gear Extractor (large)	Removing Spiral bevel gear 26 from Key 4
1R280	Round bar for Arbor 6-50	Removing Spur gear 29 from Spiral bevel gear 9
1R269	Bearing extractor	Removing Ball bearings
1R291	Retaining ring S and R pliers	Removing Retaining ring S-12
1R292	Wrench for Bearing retainer (with expanded claw distance from 30mm to 36mm)	Assembling / Disassembling Bearing retainer 36-43
1R346	Center attachment for 1R045	Removing Spiral bevel gear 26 from Key 4 (BDA340 / 350)

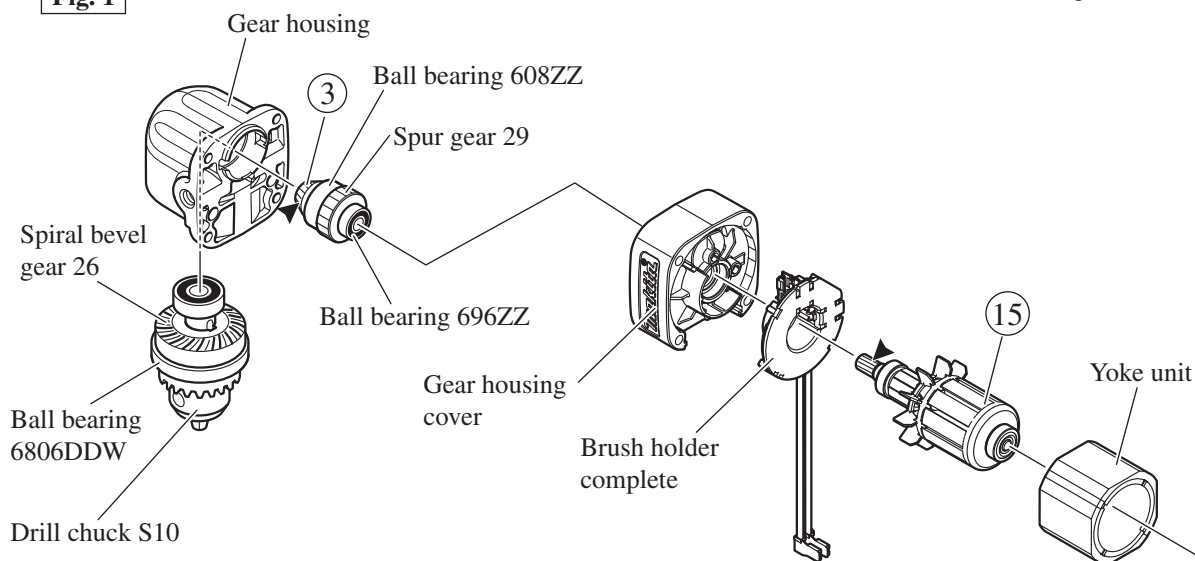
### [2] LUBRICATION

Apply Makita grease N. No.2 to the following portions designated with the black triangle to protect parts and product from unusual abrasion.

Item No.	Description	Portion to lubricate	Amount
③	Spiral bevel gear 9	Teeth portion for smooth engaging with Spiral bevel gear 26	4g
⑮	Armature	Drive end where engages with Spur gear 29	2g

**Fig. 1**

▼ Makita grease N No. 2



## Repair

### [3] DISASSEMBLY/ASSEMBLY

#### [3]-1. Drill Chuck S10, Spiral Bevel Gear 26

##### DISASSEMBLING

Refer to Figs. 2 to 7.

Fig. 2

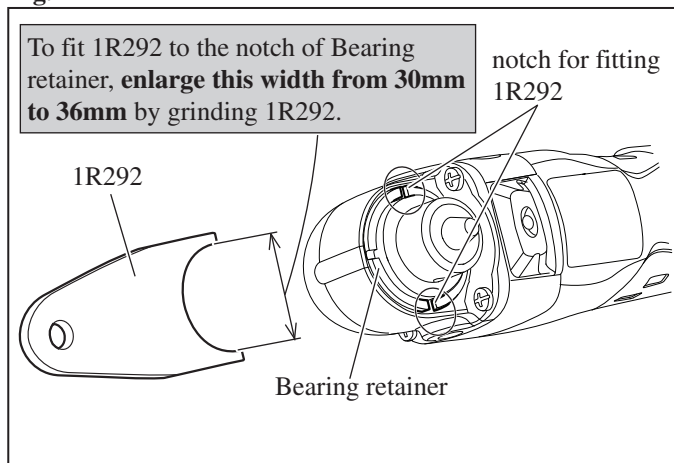


Fig. 3

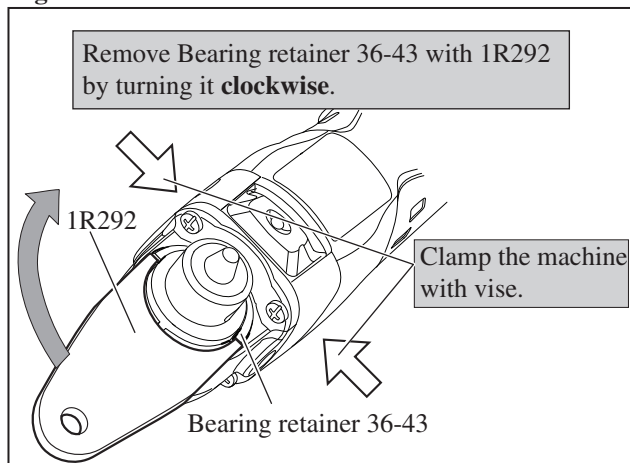


Fig. 4

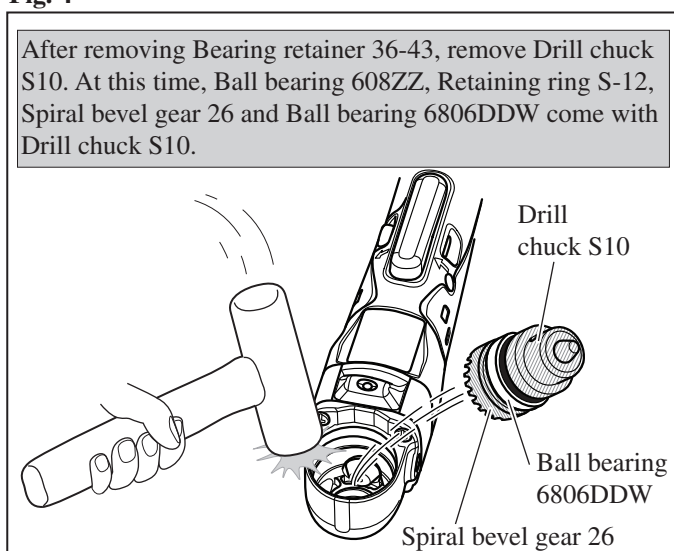


Fig. 5

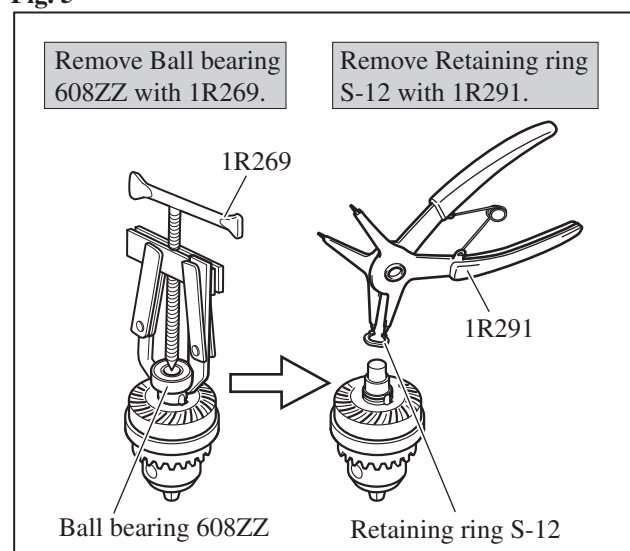


Fig. 6

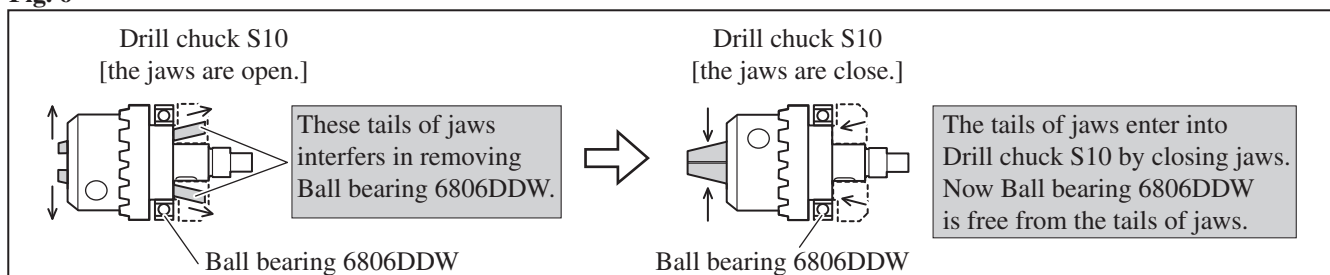
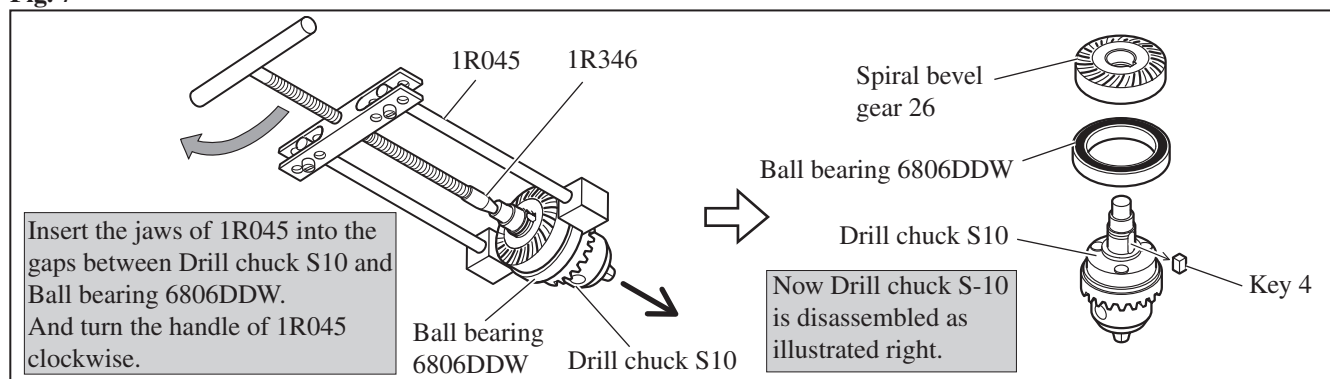


Fig. 7



## Repair

### [3] DISASSEMBLY/ASSEMBLY

#### [3]-1. Drill Chuck S10, Spiral Bevel Gear 26 (cont.)

##### ASSEMBLING

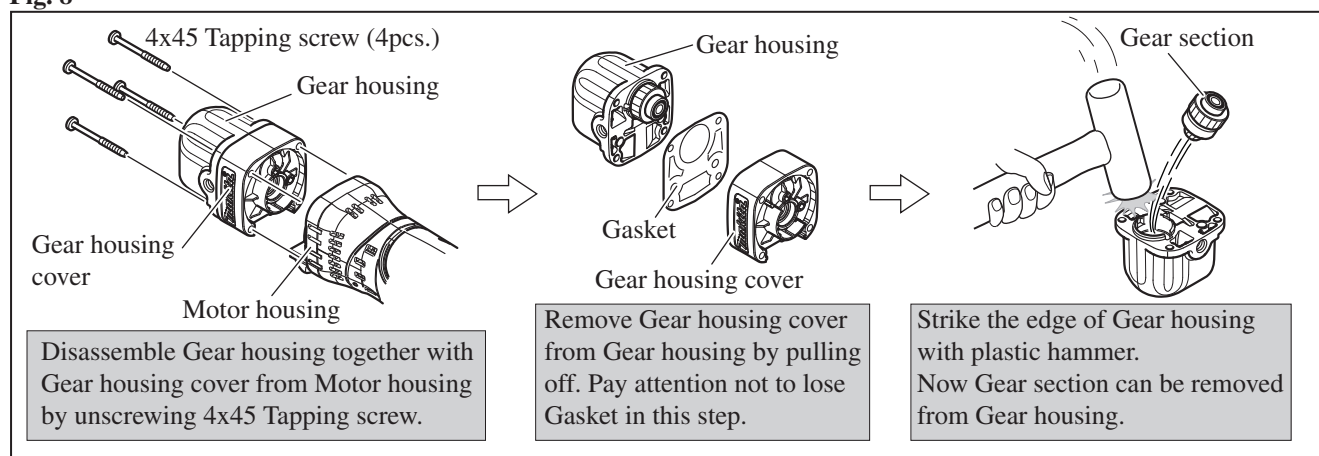
- 1) If the jaws of Drill chuck are open, make them close for smooth assembling of Ball bearing 6806DDW and Spiral bevel gear 26. Refer to **Fig. 6**.
- 2) Do not forget to assemble Key 4 to Drill chuck S10. Refer to **Fig. 7**.
- 3) Do the reverse of the disassembling steps.

#### [3]-2. Spur Gear 29, Spiral Bevel Gear 9

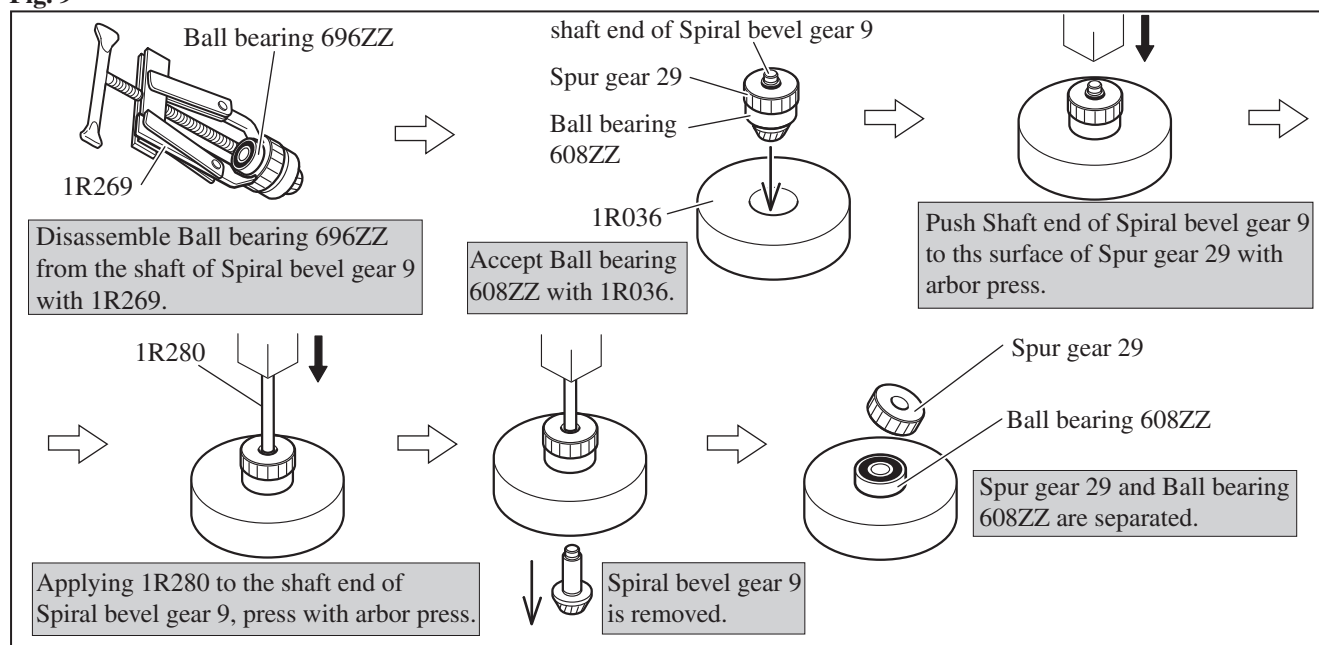
##### DISASSEMBLING

- 1) Disassemble Bearing retainer, Drill chuck S10 from Gear housing as illustrated in **Figs. 2, 3, 4**.
- 2) Disassemble the Gear section as illustrated in **Fig. 8**.
- 3) The Gear section is disassembled as illustrated in **Fig. 9**.

**Fig. 8**



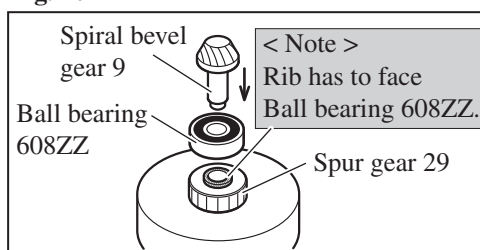
**Fig. 9**



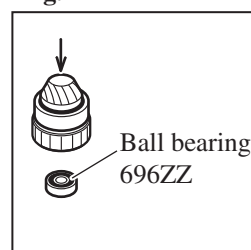
##### ASSEMBLING

- (1) Assemble Ball bearing 608ZZ and Spur gear 29 to Spiral bevel gear 9. (**Fig. 10**)
- (2) Assemble Ball bearing 696ZZ to the shaft end of Spiral bevel gear 9. (**Fig. 11**)
- (3) Do the reverse of the disassembling steps. Refer to **Fig. 8**.

**Fig. 10**



**Fig. 11**



# Repair

## [3] DISASSEMBLY/ASSEMBLY

### [3]-4. Motor Section

#### DISASSEMBLING

- (1) Disassemble Gear housing and Gear housing cover from Motor housing by unscrewing 4x45 Tapping screws. (Fig. 8)
- (2) Remove Motor section from Housing set (L) in the order of Figs.12, 13.
- (3) When removing Armature from Brush holder, take the steps illustrated in Figs. 14, 15 and 16.

Fig. 12

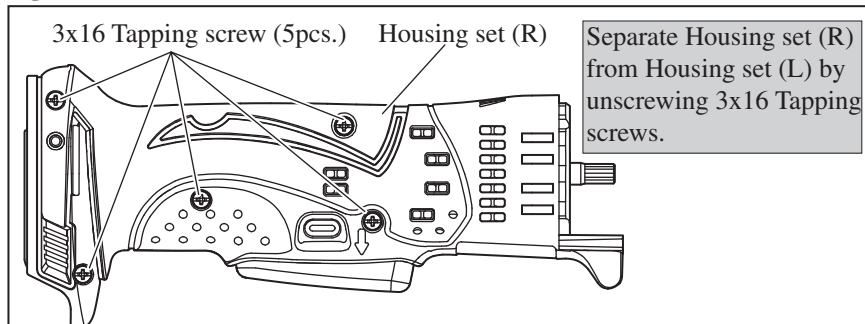


Fig. 13

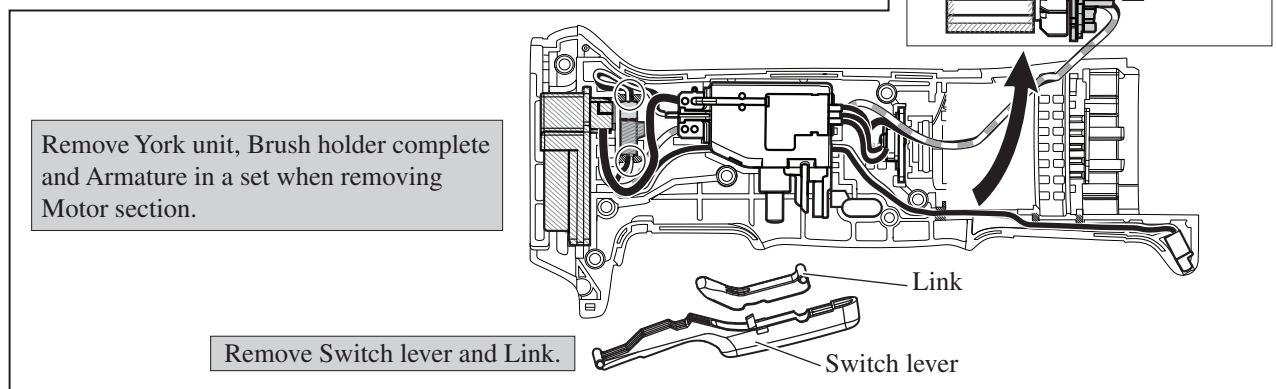
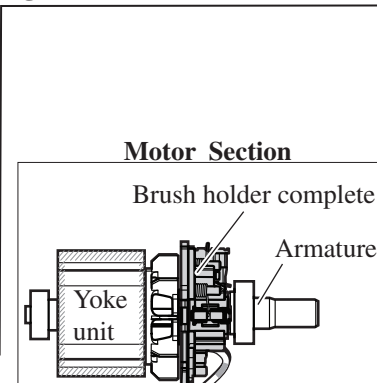


Fig. 14

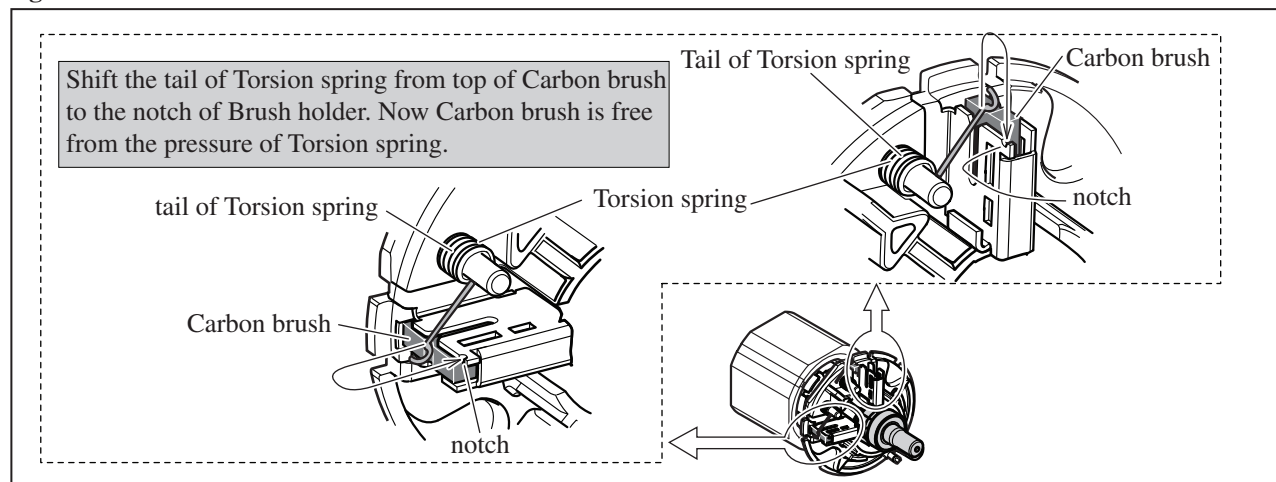


Fig. 15

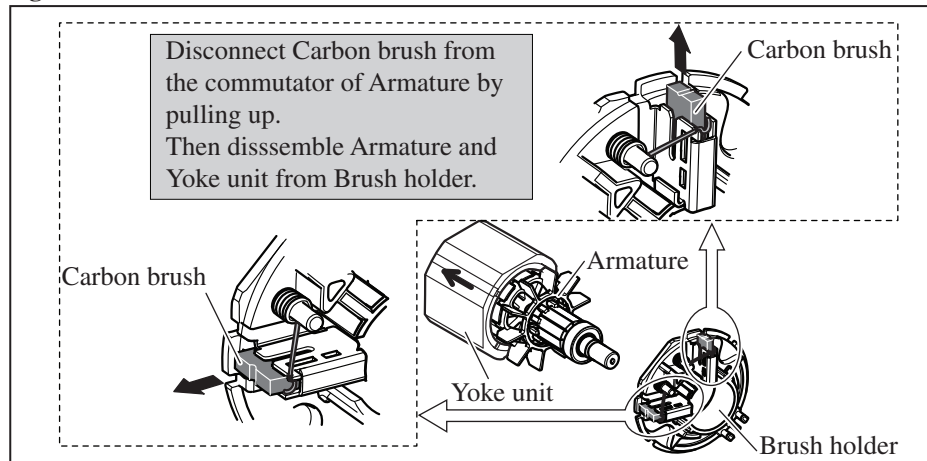
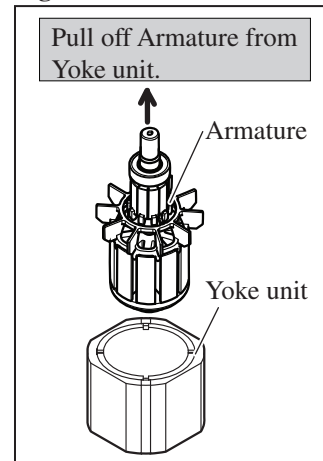


Fig. 16



## Repair

### [3] DISASSEMBLY/ASSEMBLY

#### [3]-4. Motor Section (cont.)

##### ASSEMBLING

(1) Assemble Armature as illustrated in **Fig. 12R**.

**Note:** Pay attention to the position of notch of Yoke unit.

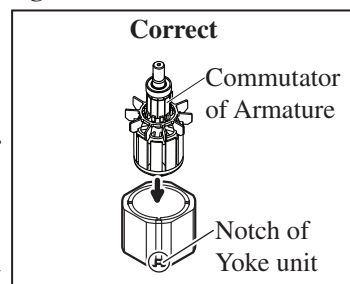
It has to be located on the **opposite side of Commutator**.

(2) Assemble Brush holder to Armature's Commutator end.

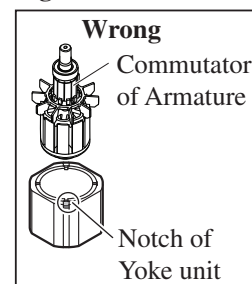
However, still keep Carbon brush free from the pressure of Torsion spring of Brush holder in this step.

(2) Assemble the Motor section to Housing set (L) as illustrated in **Figs. 13 and 14**.

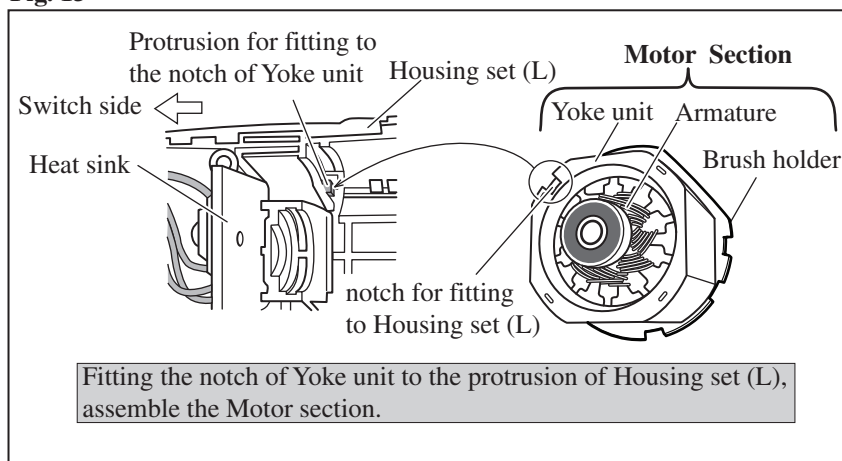
**Fig. 12R**



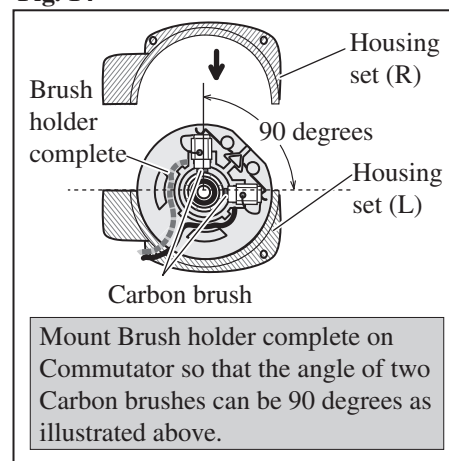
**Fig. 12F**



**Fig. 13**



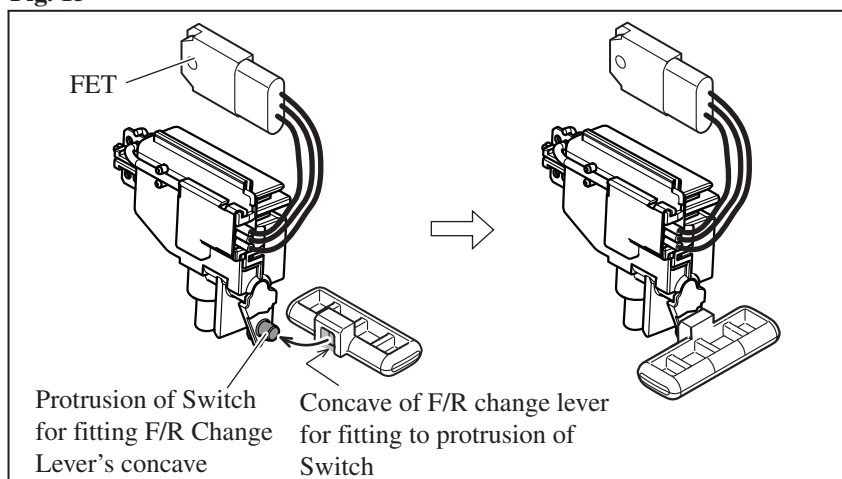
**Fig. 14**



#### [3]-5. Assembling F/R Change Lever

Fix F/R Change lever to Switch as illustrated in **Fig. 15**.

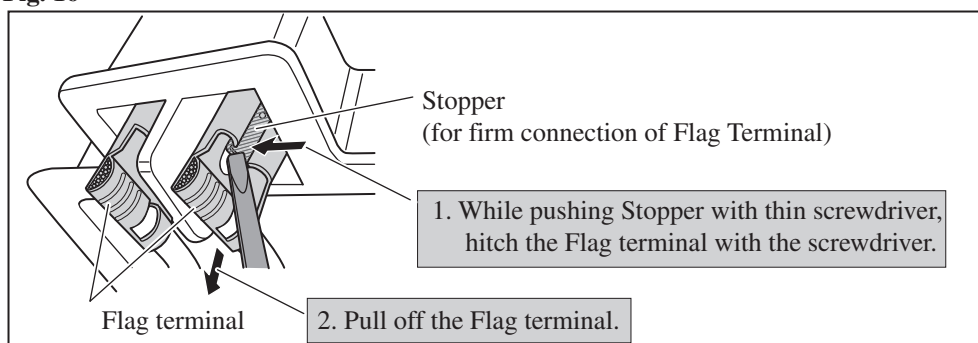
**Fig. 15**



#### [3]-6. Disassembling Terminal

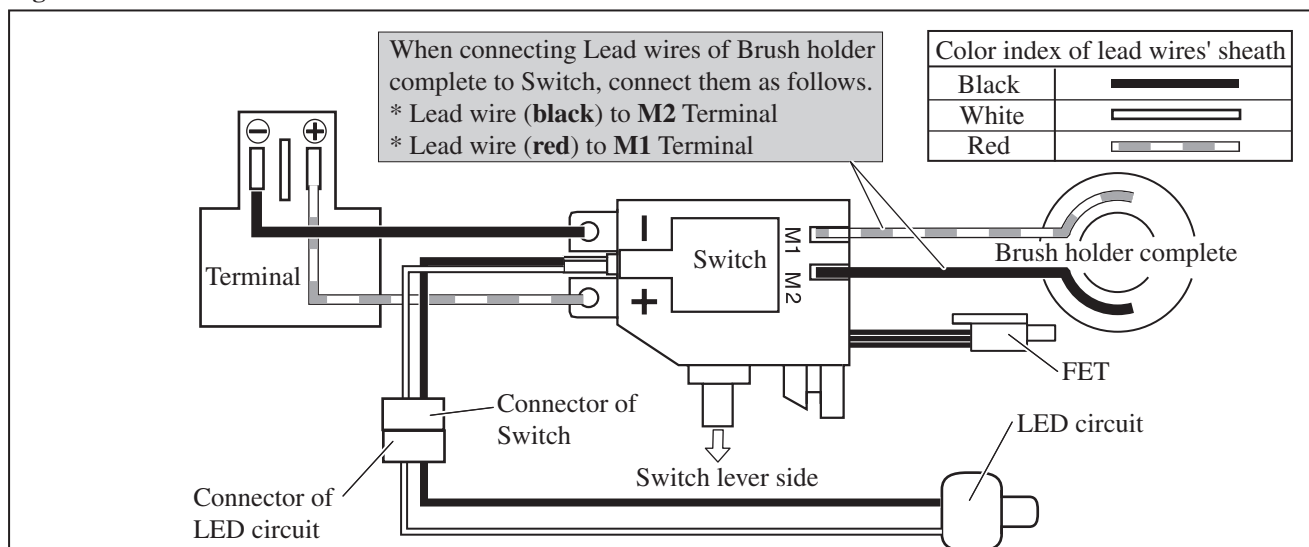
Flag terminal for this product is equipped with Stopper for firm connection. Remove Flag terminal as illustrated in **Fig. 16**.

**Fig. 16**



## ► Circuit diagram

Fig. D-1



## ► Wiring diagram

Fig. D-2

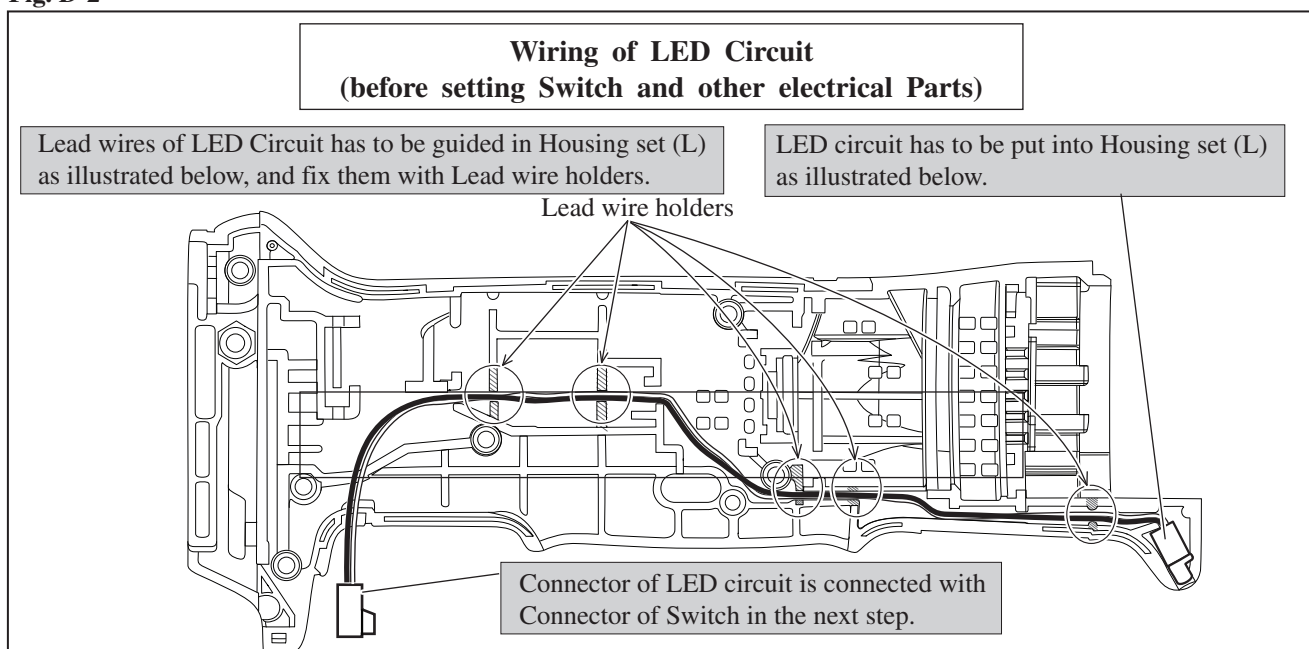


Fig. D-3

