

# T ECHNICAL INFORMATION



PRODUCT

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**Model No.** ▶ BO5040, BO5041

**Description** ▶ Random Orbit Sander

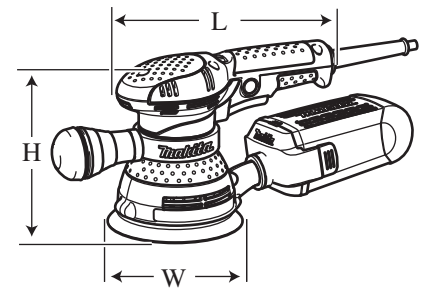
## CONCEPT AND MAIN APPLICATIONS

BO5040 and BO5041 have been developed as the redesigned successor models of BO5020 and BO5021, featuring ergonomically redesigned body and rotatable front grip for more control and comfort.

The specification difference between BO5040 and BO5041 is:

- BO5040/ Single speed model
- BO5041/ Variable speed model

Model BO5041 is also available with Plastic carrying case as BO5041K.



[Drawn above is BO5041 with dust box.]

Dimensions: mm (")	
Length (L)	218 (8-5/8)
Width (W)	123 (4-7/8)
Height (H)	153 (6)

\* Front grip and dust box or dust bag are not included.

## ► Specification

Voltage (V)	Current (A)	Cycle (Hz)	Continuous Rating (W)		Max. Output (W)
			Input	Output	
110	2.9	50/60	300	80	160
120	3.0	50/60	---	80	160
220	1.4	50/60	300	80	160
230	1.4	50/60	300	80	160
240	1.4	50/60	300	80	160

Specification	Model	BO5040	BO5041
Orbits per minute: opm= min-1		12,000	4,000-12,000
Sanding strokes: spm= min-1		24,000	8,000-24,000
Paper fastening system		Hook & Loop	
Pad size: mm (")		ø123 (4-7/8)	
Abrasive paper size: mm (")		ø125 (5)	
Variable speed control by dial		No	Yes
Pad brake		Yes	
Built-in dust extraction system		Yes	
Double insulation		Yes	
Power supply cord: m (ft)		2.0 (6.6)	
Weight according to EPTA-Procedure 01/2003*: kg (lbs)		1.4 (3.1)	

\*Without Front grip, Dust box (or Dust bag assembly)

## ► Standard equipment

- Front grip assembly ..... 1
- Abrasive paper 125-60, 125-120, 125-240 (Hook & Loop) ..... 1
- Paper filter + Dust box or Dust bag assembly ..... 1
- Plastic carrying case ..... 1 (BO5041K only)

**Note:** The standard equipment for the tool shown above may vary by country.

## ► Optional accessories

### BO5040 and BO5041:

- Abrasive paper 125-60, -80, -120, -180, -240 (Hook & Loop)
- Paper filter
- Dust box
- Dust bag assembly

### BO5041 only:

- Wool pad 140
- Felt pad 125
- Sponge pad 125

## ► Repair

**CAUTION:** Repair the machine in accordance with “Instruction manual” or “Safety instructions”.

### [1] NECESSARY REPAIRING TOOLS

Code No.	Description	Use for
1R269	Bearing extractor	Removing Ball bearings

### [2] LUBRICATION

Lubrication is not required for this product because no gear is used for transmission.

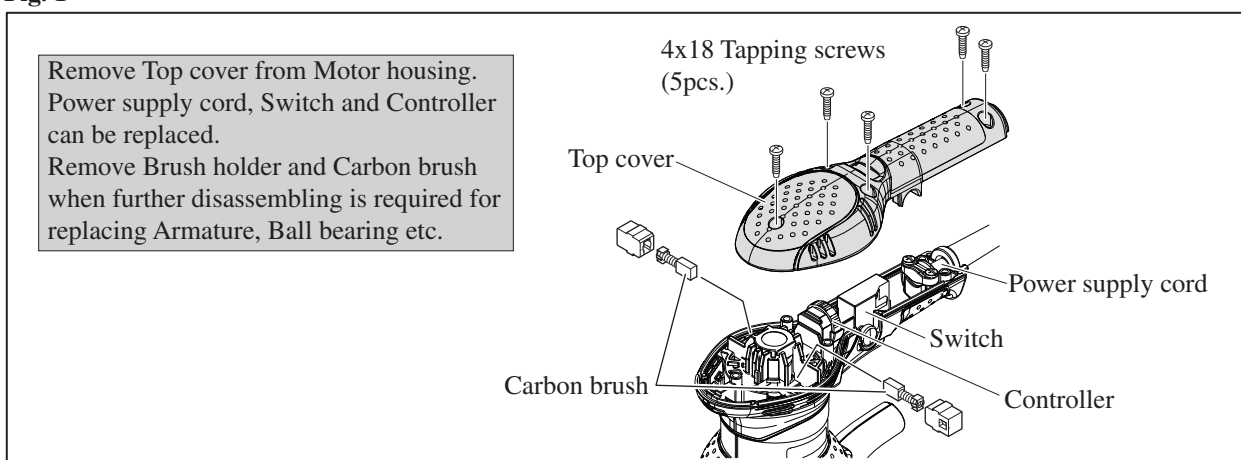
### [3] DISASSEMBLY/ASSEMBLY

#### [3]-1. Electrical parts in Handle section

##### DISASSEMBLING

Disassemble electrical Parts (Switch, Power supply cord, Controller etc.) as illustrated in **Fig. 1**.

**Fig. 1**



##### ASSEMBLING

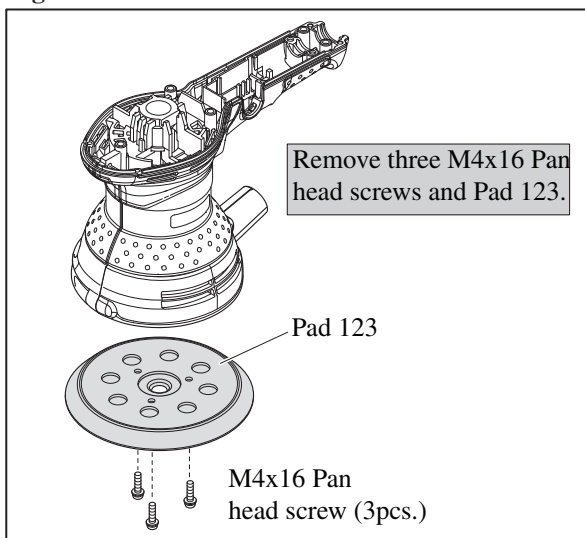
Put the Lead wires as illustrated in [Wiring Diagram], Fig. D-2 or Fig. D-4. Do not pinch the lead wires when assemble Top cover. Refer to Fig. 1

#### [3]-2. Armature

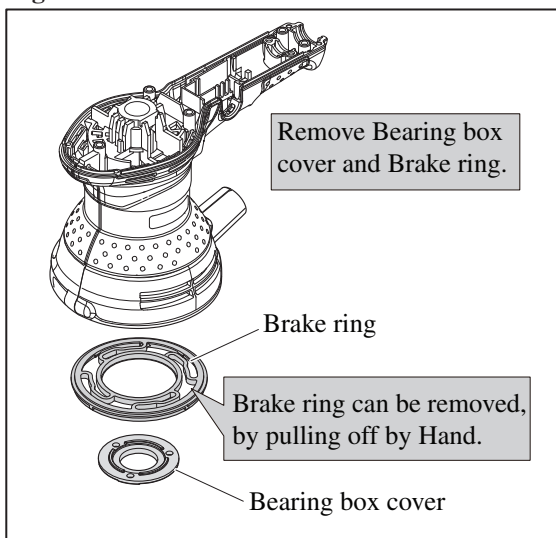
##### DISASSEMBLING

(1) Disassembling Top cover, remove Carbon brush. See Fig. 1. And remove the parts in bottom section as illustrated in Figs. 2 and 3.

**Fig. 2**



**Fig. 3**



► **Repair**

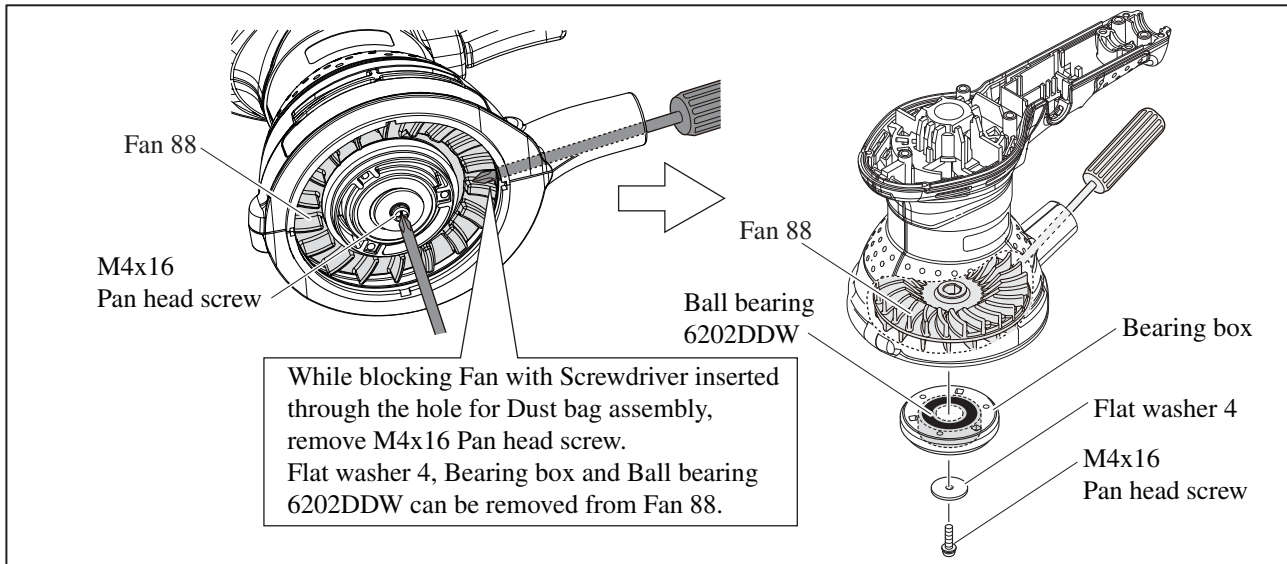
**[3] DISASSEMBLY/ASSEMBLY**

**[3]-2. Armature**

DISASSEMBLING

(2) Remove Flat washer 4, Bearing box and Ball bearing 6202DDW from Fan 88 as illustrated in **Fig. 4**.

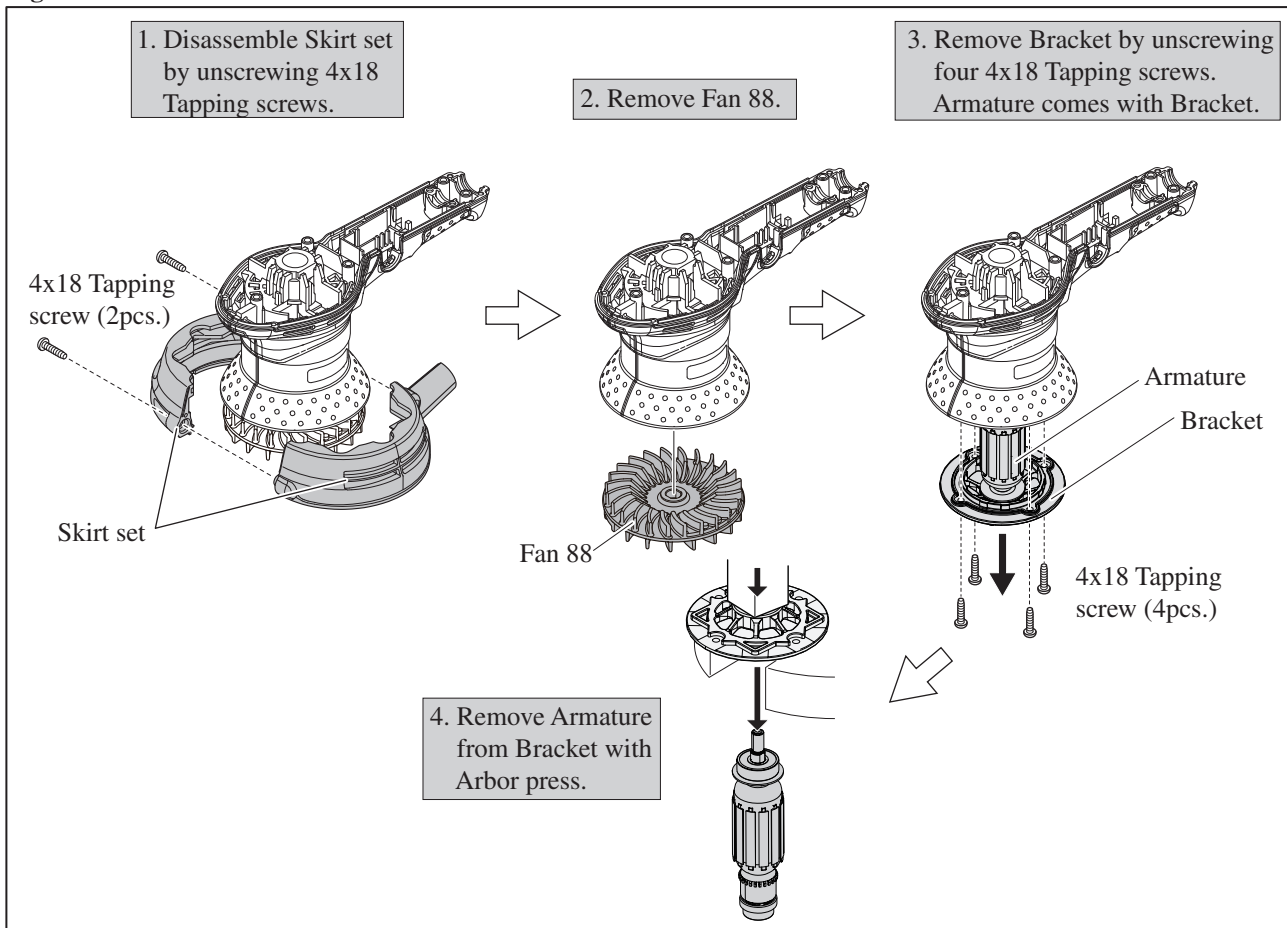
**Fig. 4**



(3) Skirt set of this product can be adjusted in 8 angles according to the user's convenience. It is required to return the repaired product to the user, keeping the Skirt set in the same angle as it was. Memorize the set angle of Skirt set before disassembling.

(4) Remove Skirt set. And then, disassemble Fan 88 and Armature together with Bracket as illustrated in **Fig. 5**.

**Fig. 5**



► **Repair**

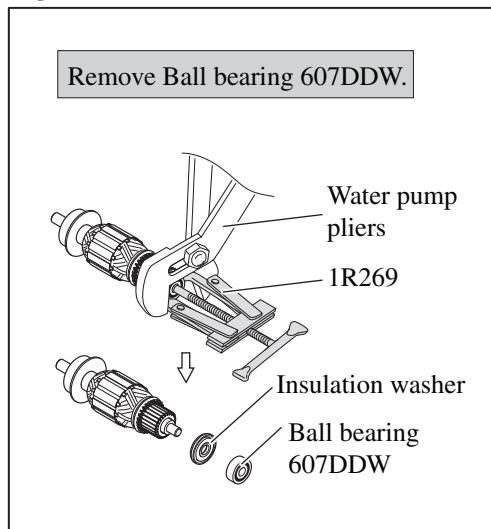
**[3] DISASSEMBLY/ASSEMBLY**

**[3]-2. Armature (cont.)**

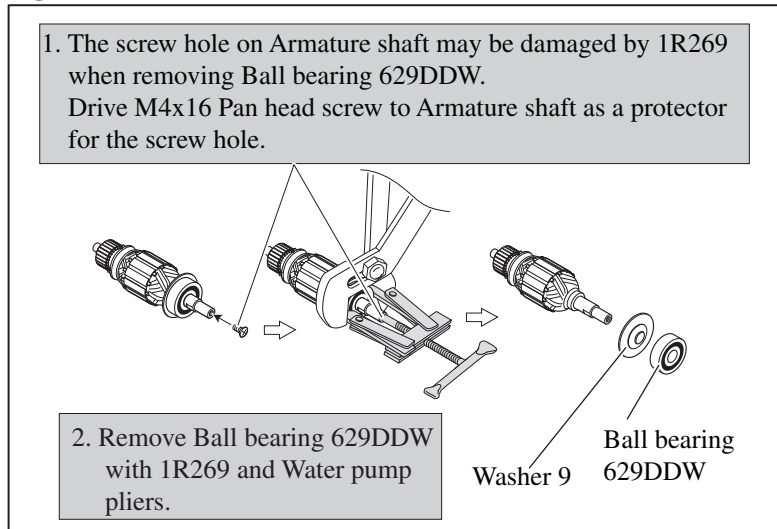
**DISASSEMBLING**

(5) It is difficult to remove the Ball bearings singly with 1R269, because of very tight space between Ball bearings and other parts (Washer 9, Insulation washer). Gripping the legs of 1R269 with Water pump pliers, remove Ball bearings as illustrated in **Fig. 6**, **Fig. 7**.

**Fig. 6**



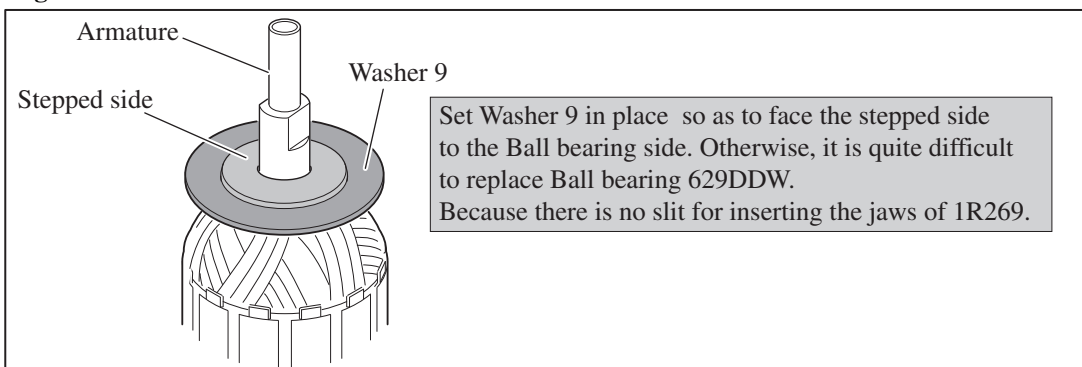
**Fig. 7**



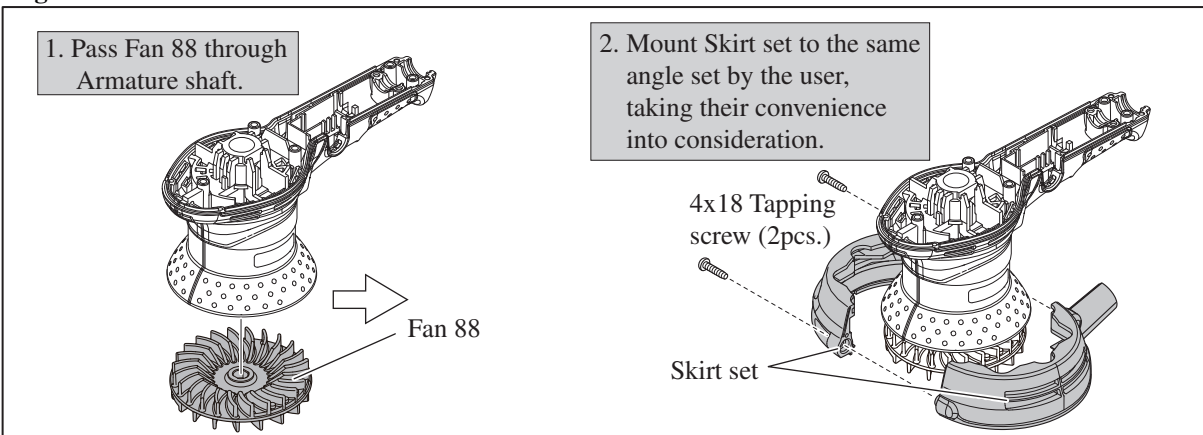
**ASSEMBLING**

(1) Assemble Armature by doing reverse step of **Figs. 7, 6 and 5**. Be careful to the matters shown in **Figs. 8 and 9**.

**Fig. 8**



**Fig. 9**



(2) Put Ball Bearing 6202DDW into Bearing box, and assemble Bearing box, Bearing box cover and Flat washer 4 to Fan 88.  
Refer to **Figs. 4, 3 and 2**.

## ► Repair

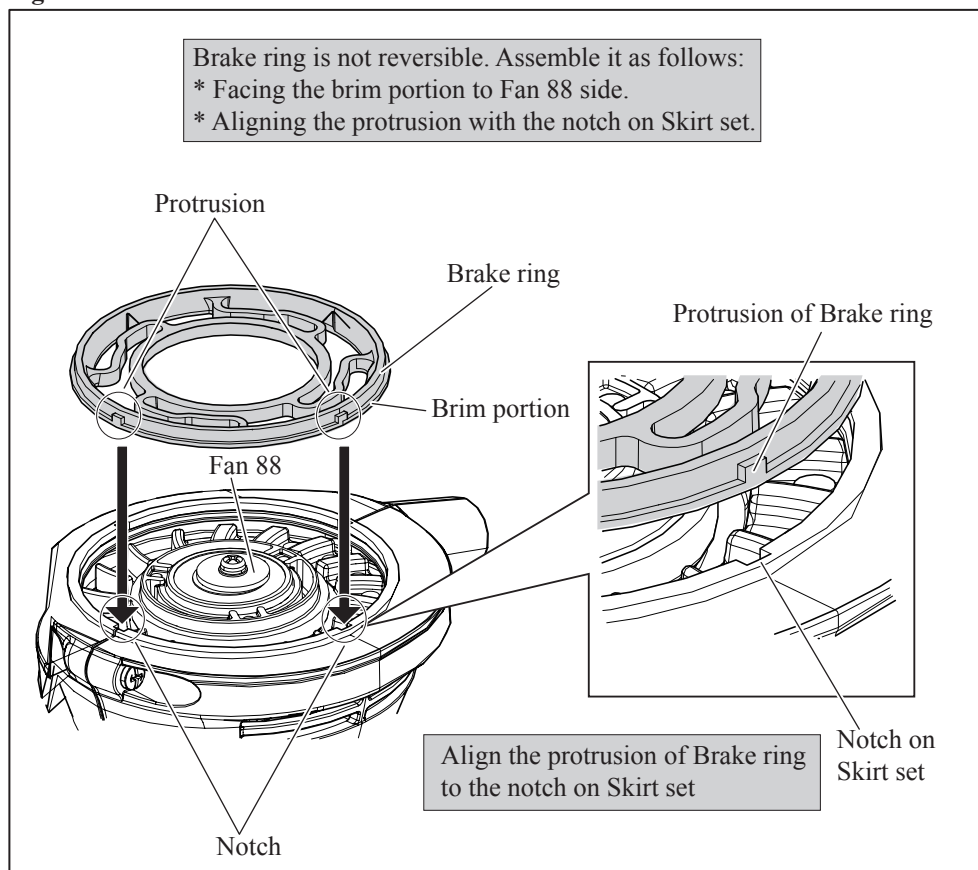
### [3] DISASSEMBLY/ASSEMBLY

#### [3]-2. Armature (cont.)

##### ASSEMBLING

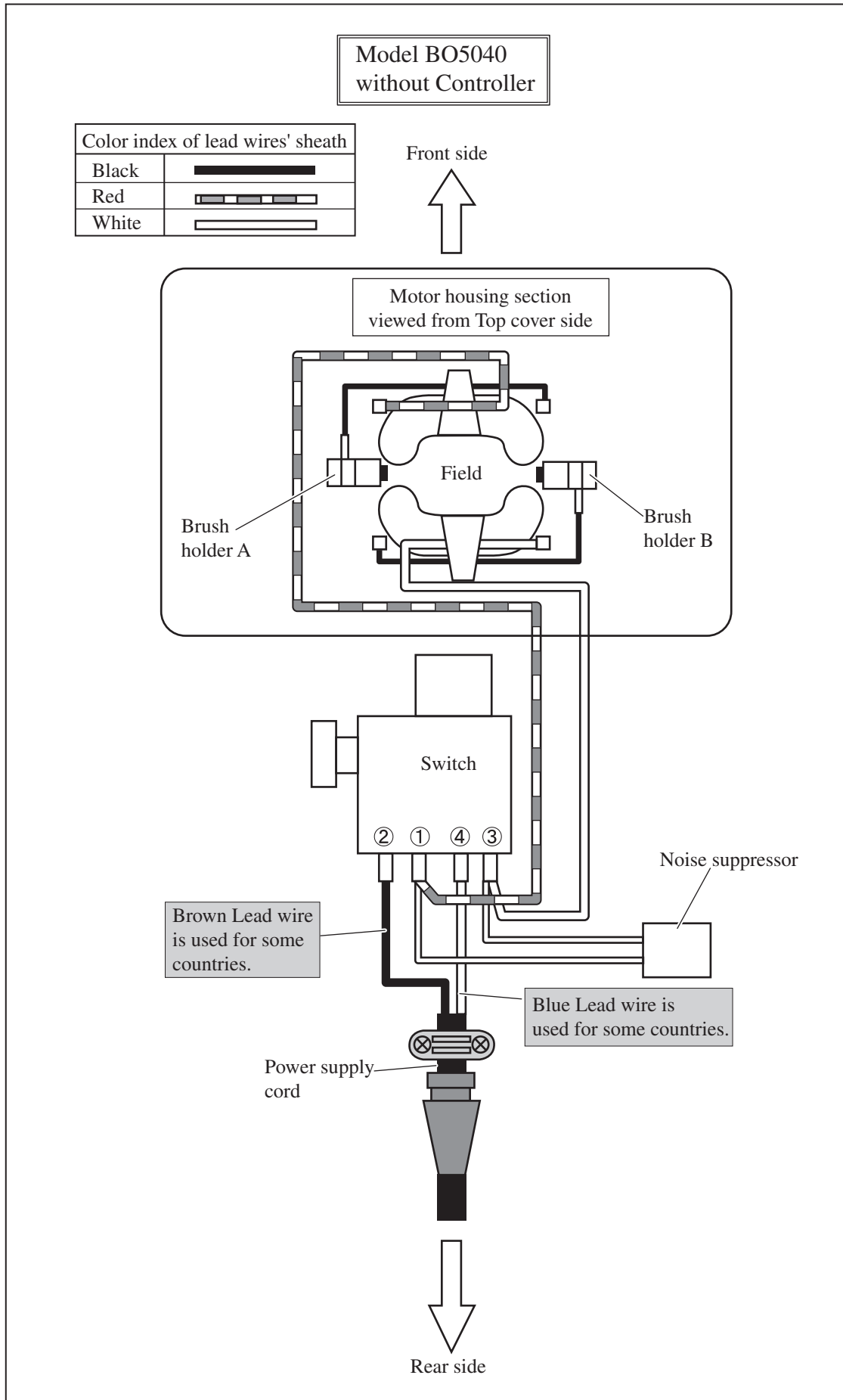
(3) Assemble Brake ring as illustrated in **Fig. 10**.

**Fig. 10**



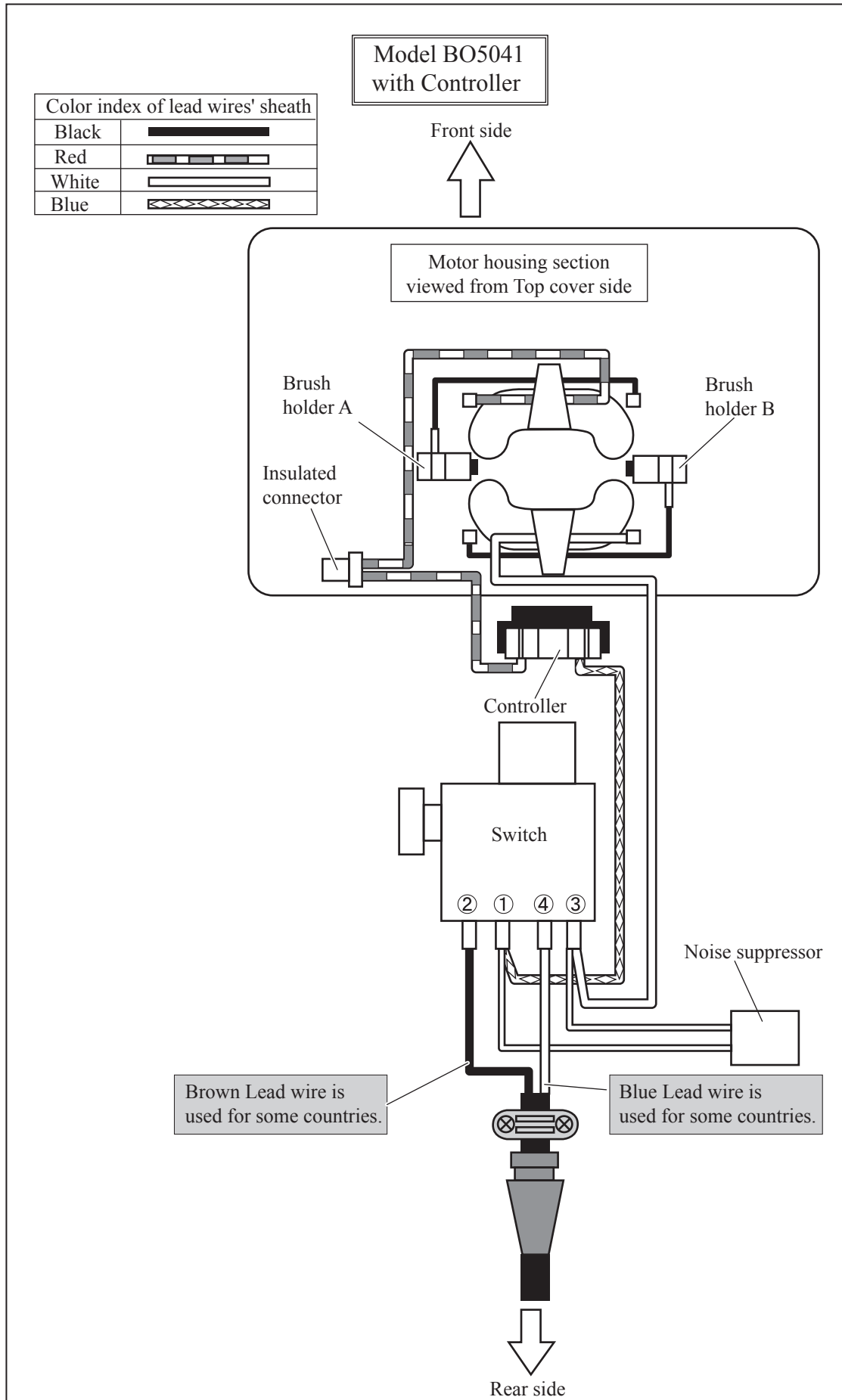
► **Circuit diagram**

Fig. D-1



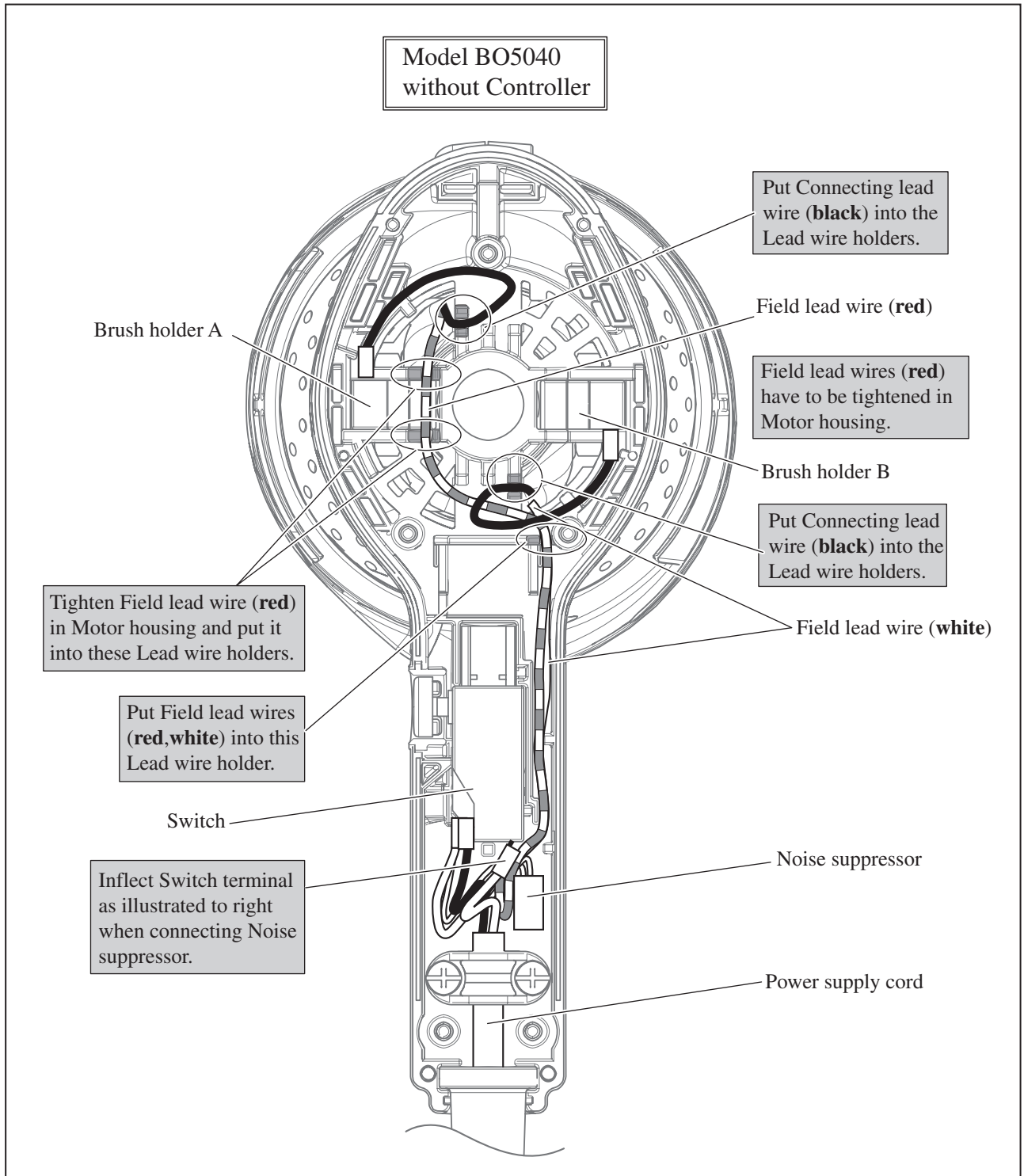
► **Circuit diagram**

Fig. D-2



► **Wiring diagram**

Fig. D-3





# ▶ Wiring diagram

Fig. D-4

