

TECHNICAL INFORMATION



PRODUCT

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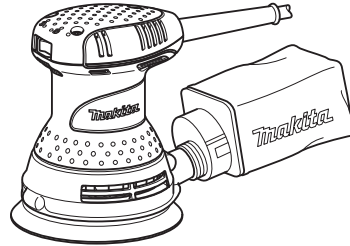
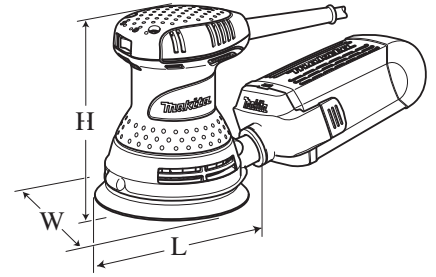
Models No. ▶ BO5030, BO5031

Description ▶ Random Orbit Sander

CONCEPT AND MAIN APPLICATIONS

BO5030 and BO5031 have been developed as the successor models of BO5010 and BO5012, featuring:

- High power motor for heavy duty applications
- Same ergonomic soft grip as BO4555 series models



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

*Dust box and 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
230-240	1.4	50/60	300	80	160

Specification	Model	BO5030	BO5031
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 (")		123 (4-7/8)	
Abrasive paper size: mm (")		125 (5)	
Speed control dial		No	Yes
Pad brake		Yes	
Double insulation		Yes	
Power supply cord: m (ft)		2.0 (6.6)	
Net weight: kg (lbs)		1.3 (2.9)	

▶ Standard equipment

- Abrasive paper 125-120 (Hook & Loop) 1
- Paper filter + Dust box
- or Dust bag assembly 1
- Plastic carrying case 1 (K model only)

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

▶ Optional accessories

- Abrasive paper 125-60, 125-80, 125-120, 125-180, 125-240 (Hook & Loop)
- Hose complete 28-1.5
- Joint 25
- Paper filter
- Dust box
- Dust bag assembly

- For BO5031 only: Wool pad 140
- Felt pad 125
- Sponge pad 125

► Repair

CAUTION: Unplug the tool and remove the abrasive disc for safety before repair/ maintenance!

[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

DISASSEMBLING

Switch and Power supply cord are readily replaceable by removing Top cover.

- 1) Remove Top cover from Motor housing by unscrewing three 4x18 Tapping screws, then disconnect Flag terminal from each Brush holder. (**Fig. 1**)
- 2) Clamp the terminal of Brush holder with long-nose pliers, then pull up Brush holder together with Carbon brush while pushing Carbon brush with slotted screwdriver. (**Fig. 2**)

Note: Do not scratch Commutator when clamping the terminal of Brush holder with long-nose pliers.

Fig. 1

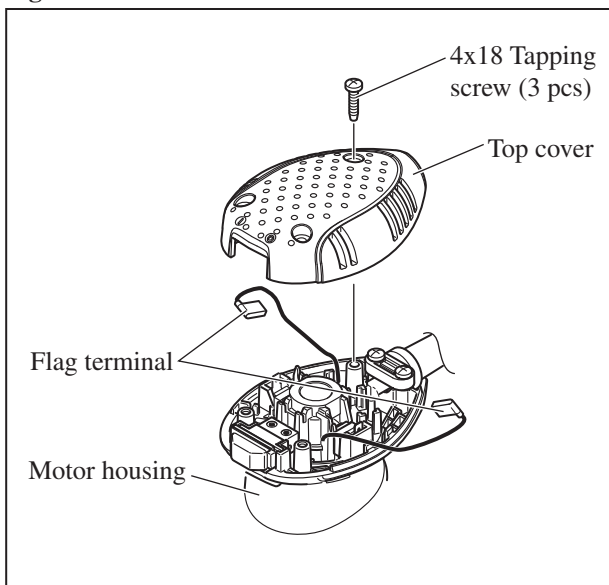
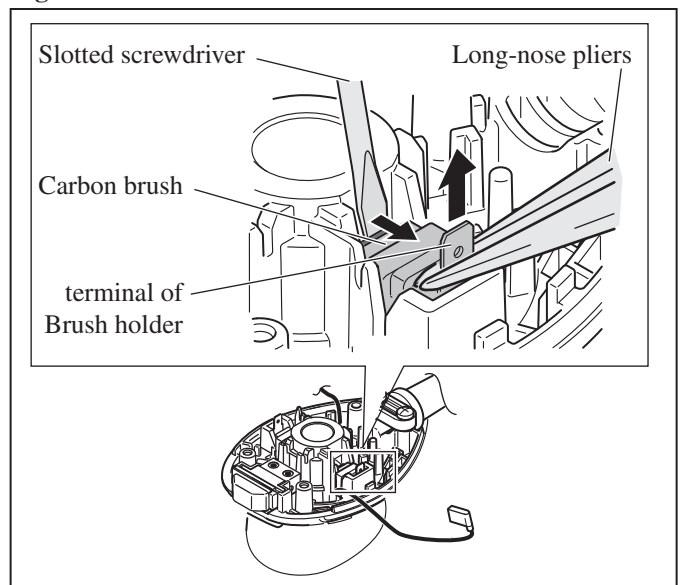


Fig. 2



- 3) Remove Pad 123, Bearing box cover and Brake ring by unscrewing four M4x16 Pan head screws. (**Fig. 3**)

Note: Brake ring is not dropped out of machine. Pull it out by hand.

- 4) Lock Armature shaft by inserting screwdriver from the discharge nozzle of Skirt to hold Fan 88 linked with Armature shaft. (**Fig. 4**) and remove M4x16 Pan head screw from the locked Armature shaft.

Bearing box cover, Ball bearing 6202DDW and Flat washer 4 can be removed.

Fig. 3

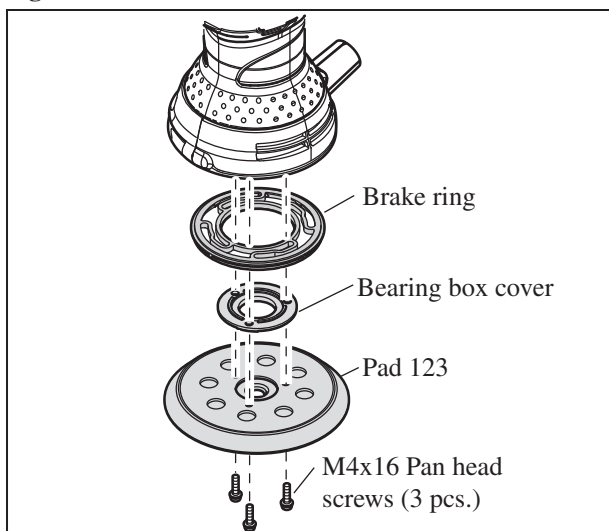
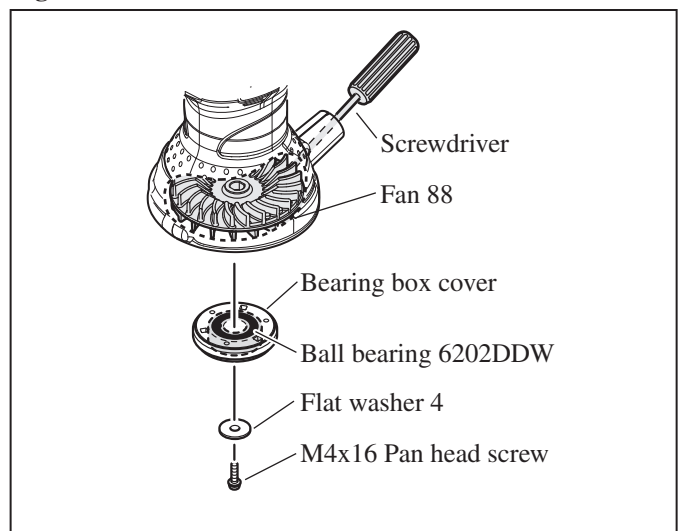


Fig. 4



► **Repair**

[3] DISASSEMBLY/ASSEMBLY (cont.)

DISASSEMBLING

6) Loosen 4x18 Tapping screws and remove Skirt L and Skirt R. **(Fig. 5)**

7) Remove Fan 88 from Armature shaft. Ball bearing 6202DDW, Bearing box and Flat washer 15 are left in Fan 88 together. **(Fig. 6)**

Note: Do not miss Flat washer 15 between Fan 88 and Ball bearing 6202DDW. **(Fig. 7)**

8) Remove Bracket with Armature ass'y by loosening 4x18 Tapping screws. **(Fig. 8)**

9) Remove Bracket from Armature ass'y using arbor press. **(Fig. 9)**

10) Use waterpump pliers so that the jaws of 1R269 are not open and remove Ball bearing 607DDW from Armature commutator end shaft using their tools. **(Fig. 10)**

11) After installing M4x16 Pan head screw, use 1R269 with waterpump pliers to remove Ball bearing 629DDW from Armature shaft. **(Fig. 11)**

Note: The clearances between Ball bearing 607DDW and Insulation washer, and Ball bearing 629DDW and Washer 9 are very small. Therefore, waterpump pliers are required to securely hook their Ball bearings with the jaws of 1R269.

Fig. 5

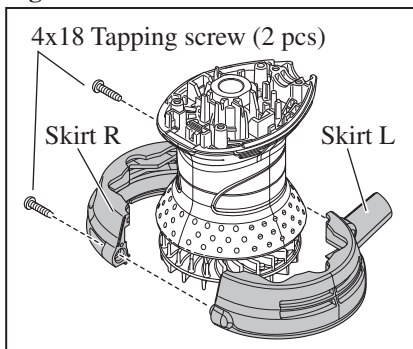


Fig. 6

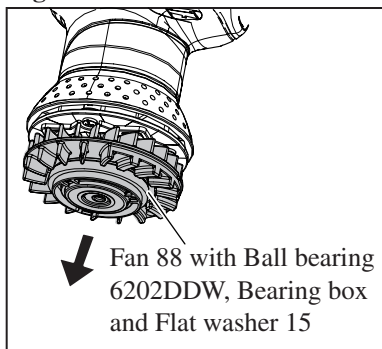


Fig. 7

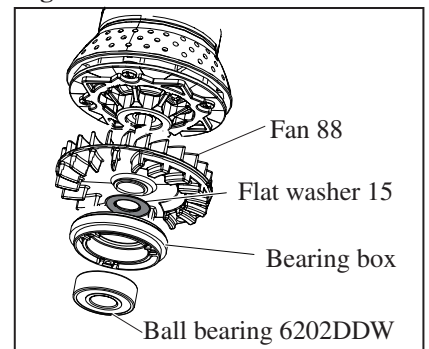


Fig. 8

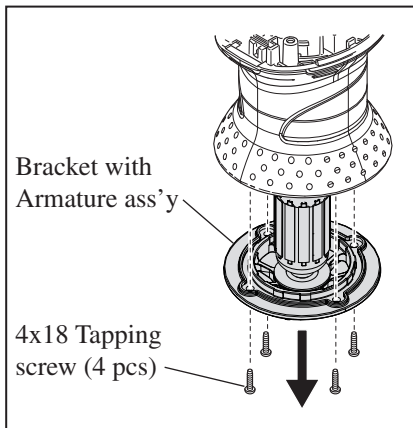


Fig. 10

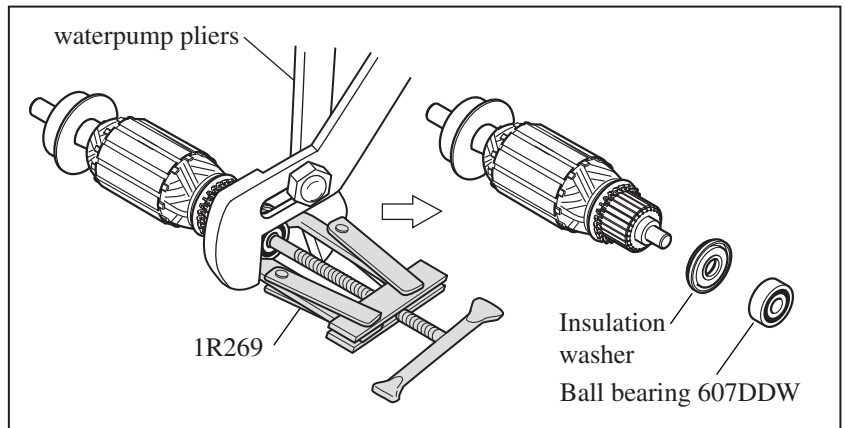


Fig. 9

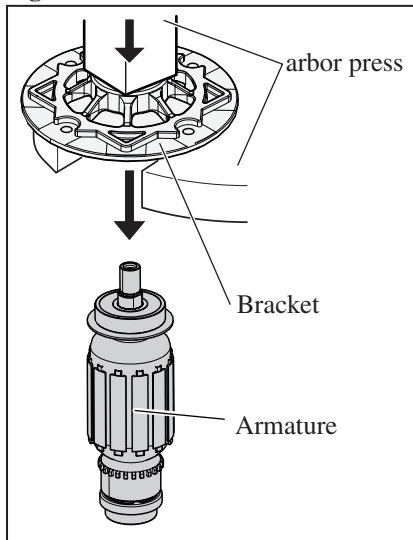
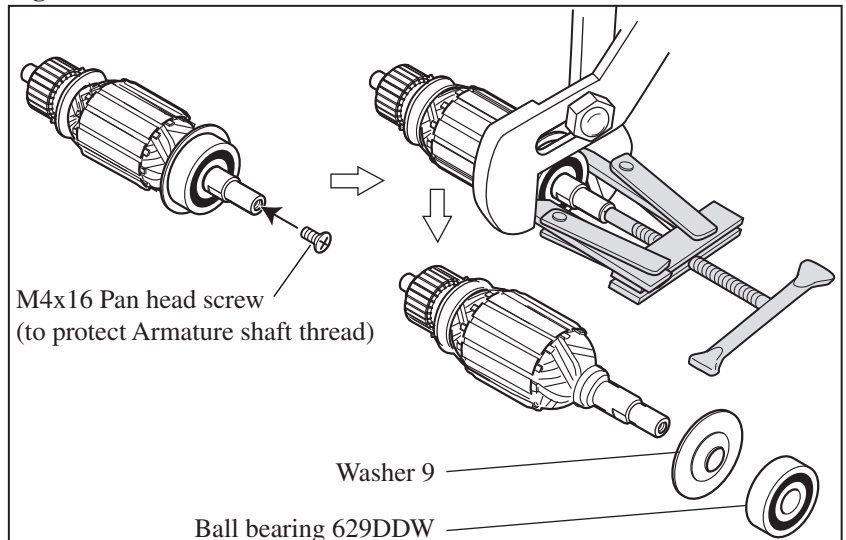


Fig. 11



► **Repair**

[3] **DISASSEMBLY/ASSEMBLY (cont.)**

ASSEMBLING

Do the reverse of the disassembling steps.

When fixing Washer 9 to Armature shaft, face the convex portion to outside as illustrated in **Fig. 12**.

After mounting Fan 88 to Armature ass'y, fix Skirt R and Skirt L. The position of Skirt set can be fixed at eight directions. When disassembling Skirt set, check the owner's desired direction of the dust exit of Skirt and to set Skirt set in place in reassembling. (**Fig. 13**)

Fit Brake ring into Skirt set as illustrated in **Fig. 14**.

Fig. 12

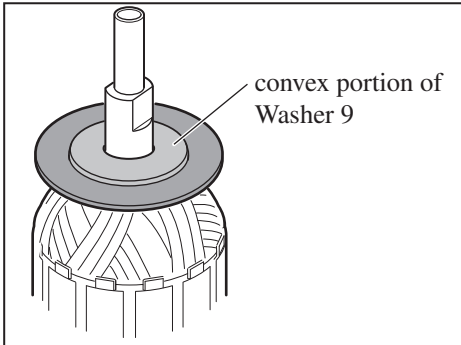


Fig. 13

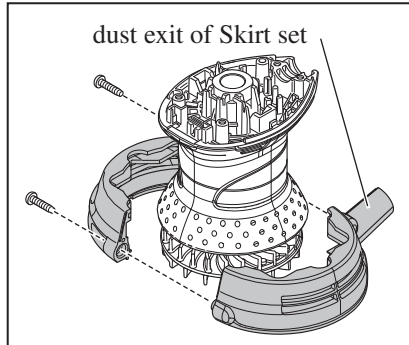
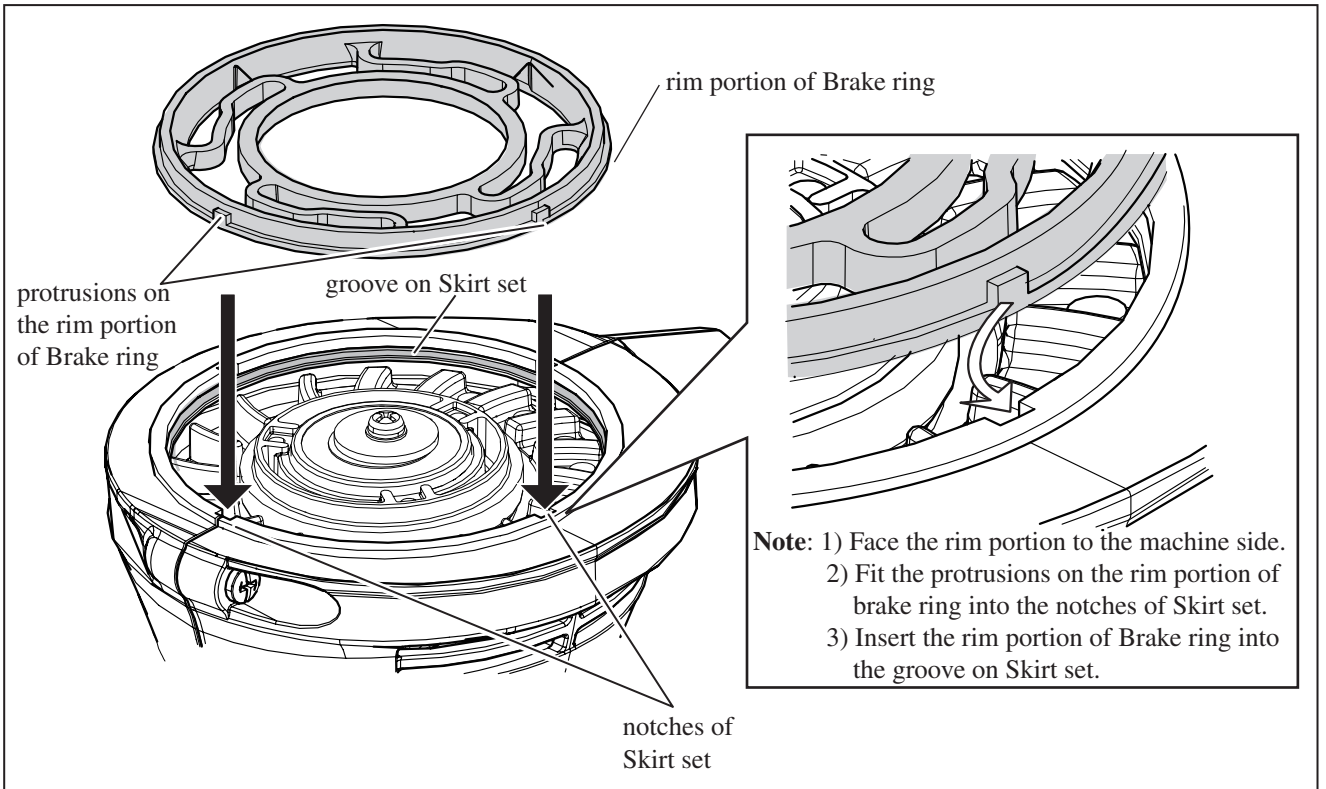
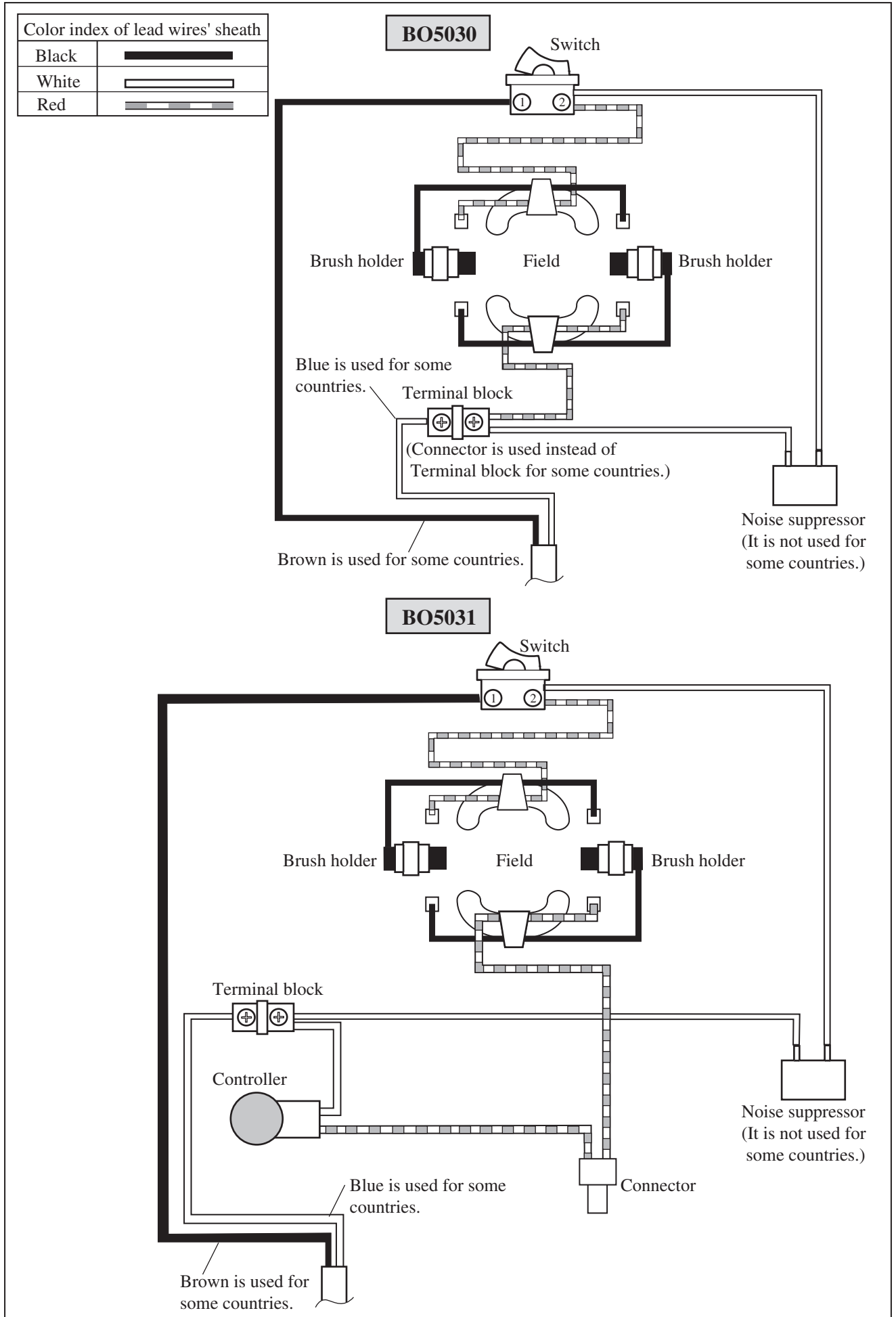


Fig. 14



► **Circuit diagram**

Fig. D-1

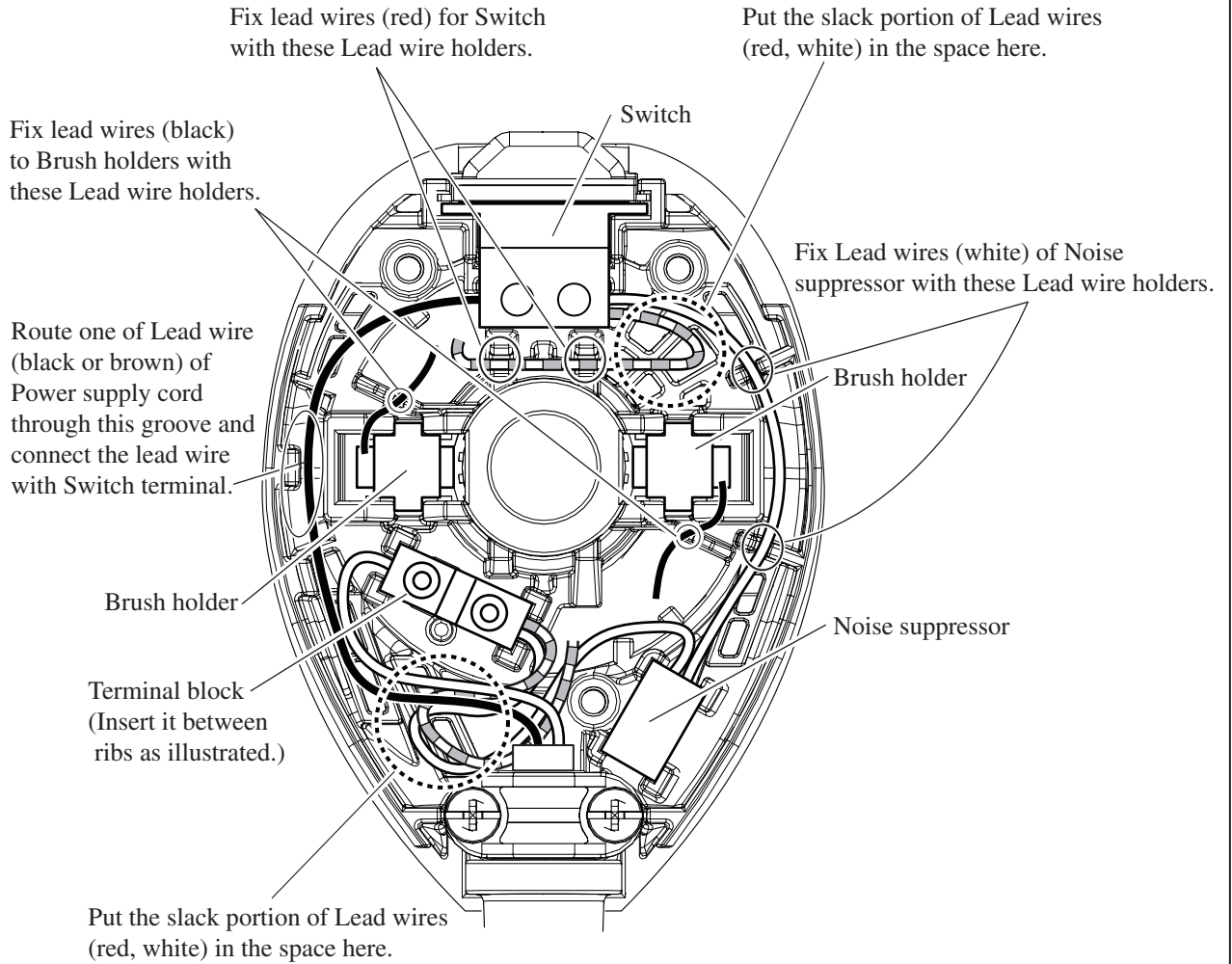


► **Wiring diagram**

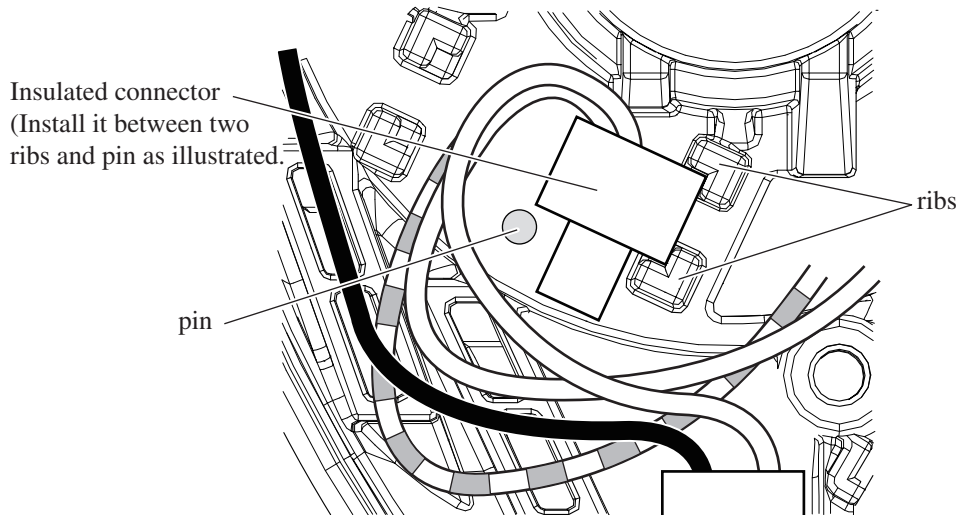
Fig. D-2

BO5030 (Specifications with Terminal block)

Note: Some specifications do not have Noise suppressor.



BO5030 (Specifications with Insulated connector instead of Terminal block)



► **Wiring diagram**

Fig. D-3

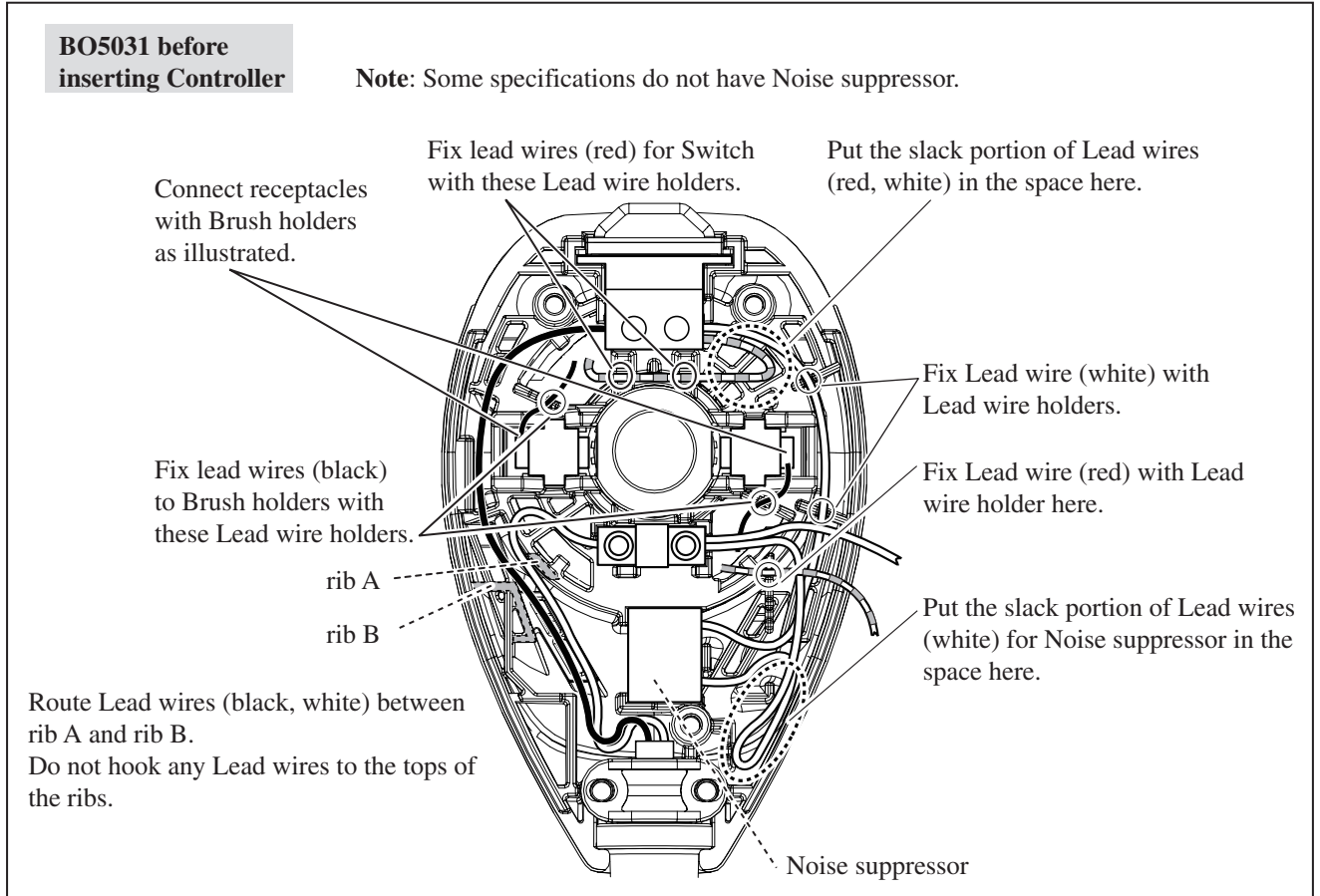


Fig. D-4

