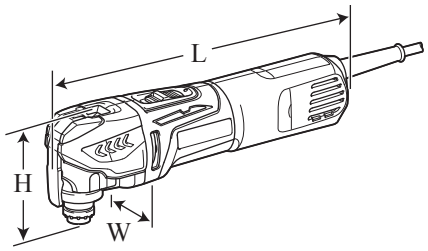
TECHNICAL INFORMATION

Model No. ► TM3010C

Description ► Multi tool



Dimensions: mm (")	
Length (L)	283 (11-1/8)
Width (W)	68 (2-11/16)
Height (H)	87 (3-7/16)

CONCEPT AND MAIN APPLICATIONS

Model TM3010C has been developed based on model TM3000C and equipped with the tool-less accessory change system.
Other features are the same as TM3000C.

► Specification

Voltage (V)	Current (A)	Cycle (Hz)	Continuous Rating (W)		Max. Output (W)
			Input	Output	
110	3.1	50/ 60	320	115	260
120	3.0	50/ 60	---	115	260
220	1.5	50/ 60	320	115	260
230	1.5	50/ 60	320	115	260
240	1.4	50/ 60	320	115	260

Oscillations per minute: opm=min^{-1}		6,000 - 20,000
Oscillating multi tool accessories		Makita oscillating multi tool accessories equivalent to BOSCH OIS (Oscillating Interface System)
Electronic control	Variable speed control by dial	Yes
	Soft start	Yes
	Constant speed control	Yes
	Anti-restart function	No
Protection against electric shock		Double insulation
Power supply cord: m (ft)		All countries except North American countries: 5.0 (16.4), North American countries: 2.5 (8.2)
Weight according to EPTA-Procedure 01/2003: kg (lbs)		1.6 (3.7)*1/ 1.7 (3.9)*2

***1**: without Sanding pad, Vacuum attachment
***2**: with Sanding pad, Vacuum attachment

► Standard equipment

Oscillating multi tool accessories
[equivalent to BOSCH OIS (Oscillating Interface System)] 1
Dust attachment (for Sanding pad) ..... 1 (for European countries only)
Tool box (for storing oscillating multi tool accessories) ..... 1 (for some countries only)
Plastic carrying case or Tool bag ..... 1 (for some countries only)

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

► Optional accessories

Oscillating multi tool accessories [equivalent to BOSCH OIS (Oscillating Interface System)]
Tool box (for storing oscillating multi tool accessories)
Dust attachment set
Triangular abrasive papers (Hook & loop type)

Repair

CAUTION: Repair the machine in accordance with "Instruction manual" or "Safety instructions".

[1] NECESSARY REPAIRING TOOLS

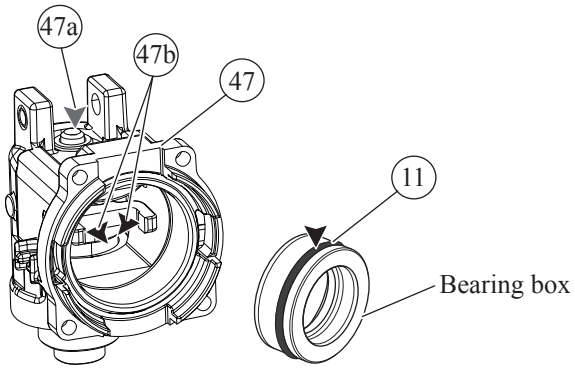
Code No.	Description	Use for
1R027	Bearing setting pipe 18-10.2	supporting Crank housing when removing Pin 5
1R233	Round bar for Arbor 4-100	removing Pin 5
1R269	Bearing extractor	removing the parts from the drive end of Armature shaft
1R291	Retaining ring S and R pliers	removing/ mounting Retaining ring S-7 from Armature shaft of drive end
1R306	Ring spring removing jig	removing Pin 5

[2] LUBRICATION

Apply **Makita grease N. No.2** to the portions designated with the gray triangle, and **MAKITA Grease FA No.2** to the portions designated with the black triangle to protect parts and product from unusual abrasion..

Item No.	Description	Portion to lubricate	Grease	Amount
(47)	Crank housing complete	(47a): Driver portion	▼: MAKITA Grease N No.2	a little
		(47b): Connector portion	▼: MAKITA Grease FA No.2	a little
(11)	O ring 35	Whole portion		a little

Fig. 1



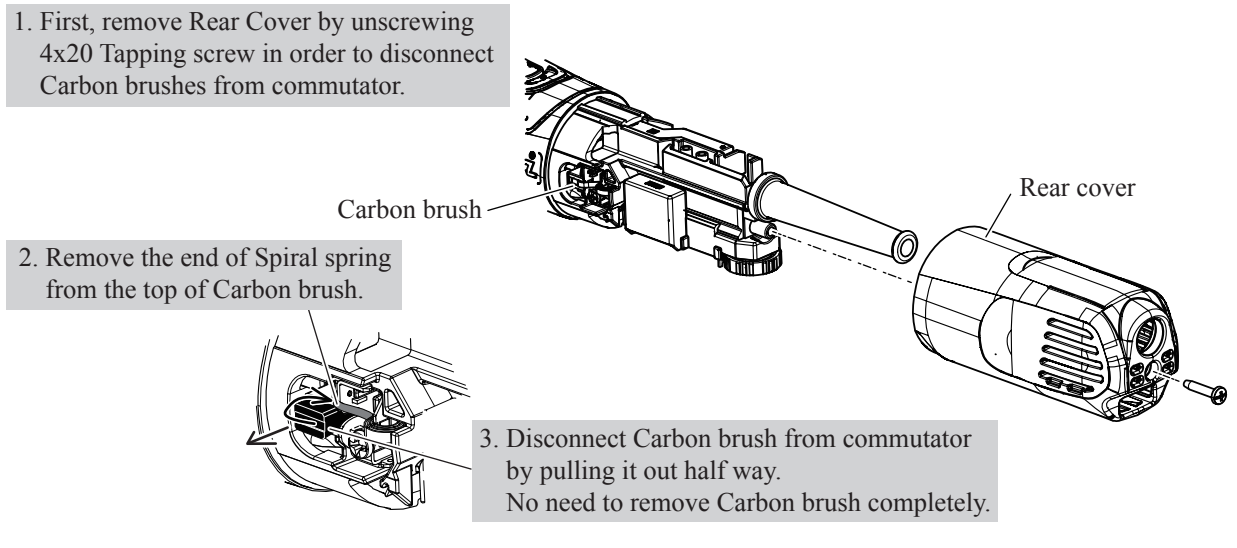
[3] DISASSEMBLY/ASSEMBLY

[3] -1. Armature

DISASSEMBLING

(1) Disconnect Carbon brush from Armature's commutator as drawn in **Fig. 2**.

Fig. 2



Repair

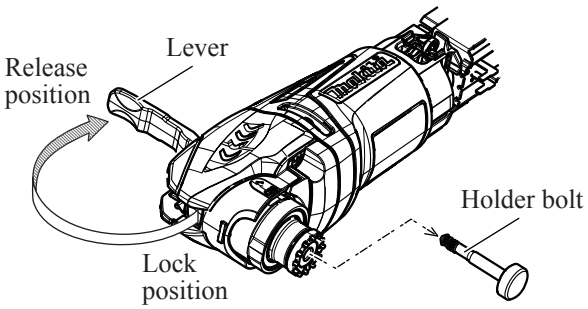
[3] DISASSEMBLY/ASSEMBLY
[3] -1. Armature (cont.)

DISASSEMBLING

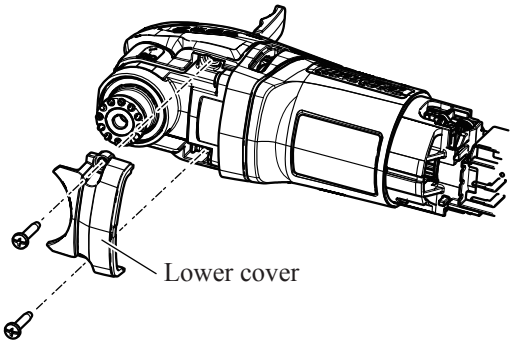
(2) Disassemble Armature as drawn in **Fig. 3**.

Fig. 3

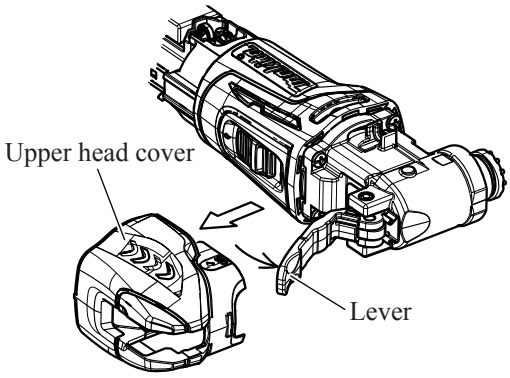
1. Shift Lever fully to the release position from the lock position, then pull off Holder bolt.



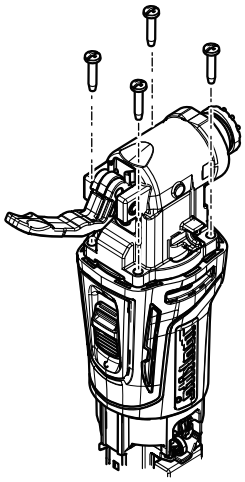
2. Remove Lower cover by unscrewing two 4x20 Tapping screws.



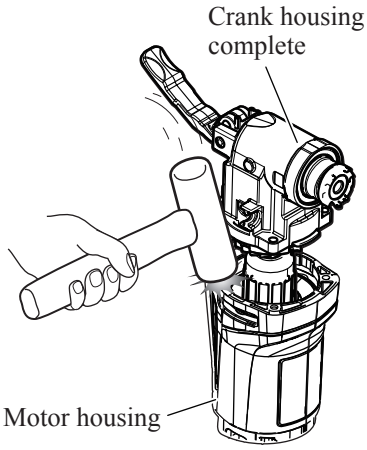
3. Return Lever a little to the lock position, then remove Upper head cover.



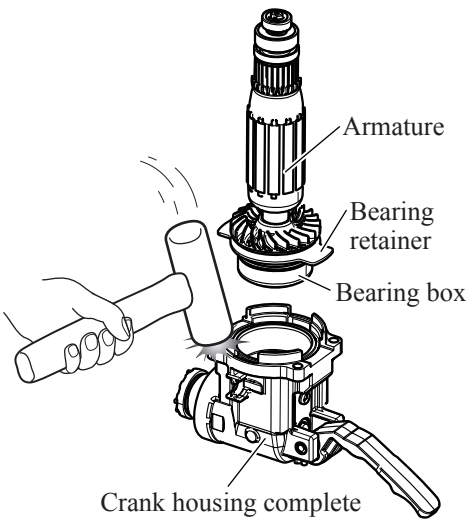
4. Remove four 4x20 Tapping screws.



5. Separate Crank housing complete together with Armature by tapping the edge of Motor housing.



6. Remove Armature section by tapping the edge of Crank housing complete.



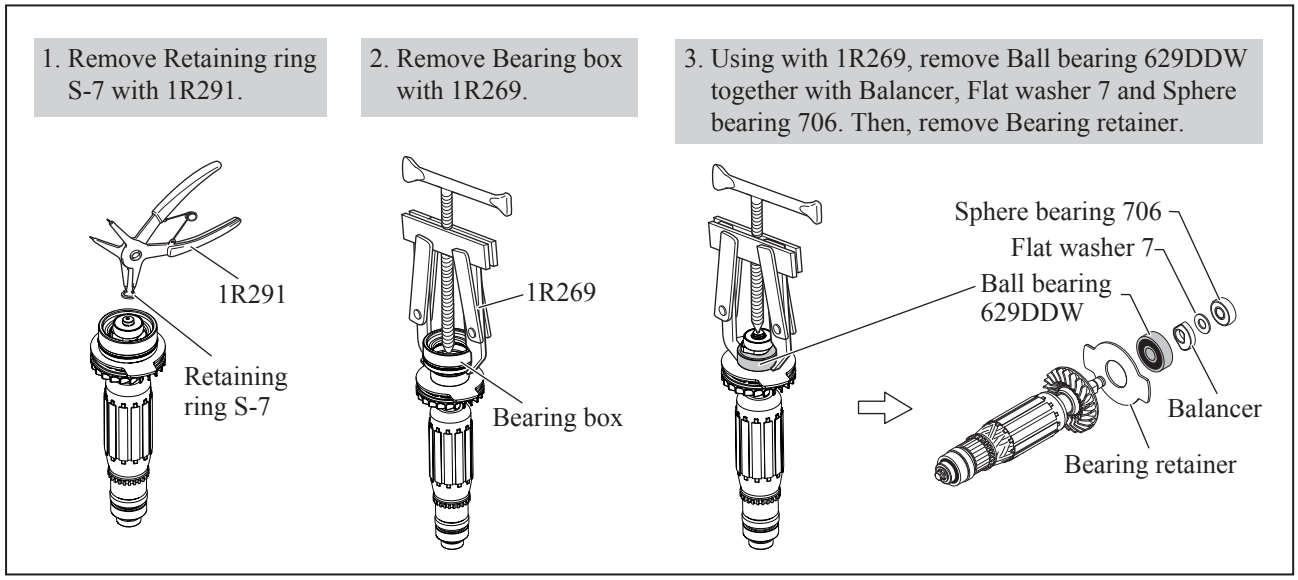
Repair

[3] DISASSEMBLY/ASSEMBLY
[3] -1. Armature (cont.)

DISASSEMBLING

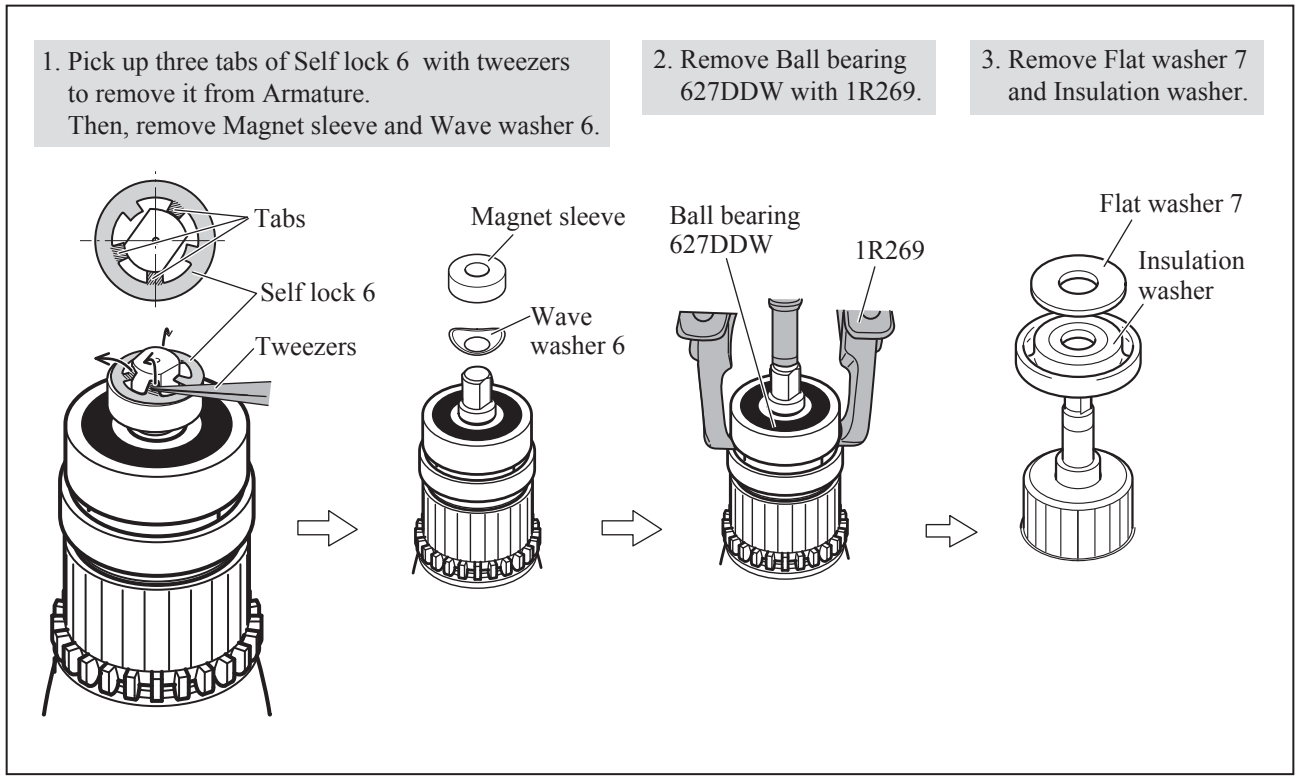
(3) Disassemble the drive end of Armature as drawn in **Fig. 4**.

Fig. 4



(4) Remove the commutator end of Armature as drawn in **Fig. 5**.

Fig. 5



Repair

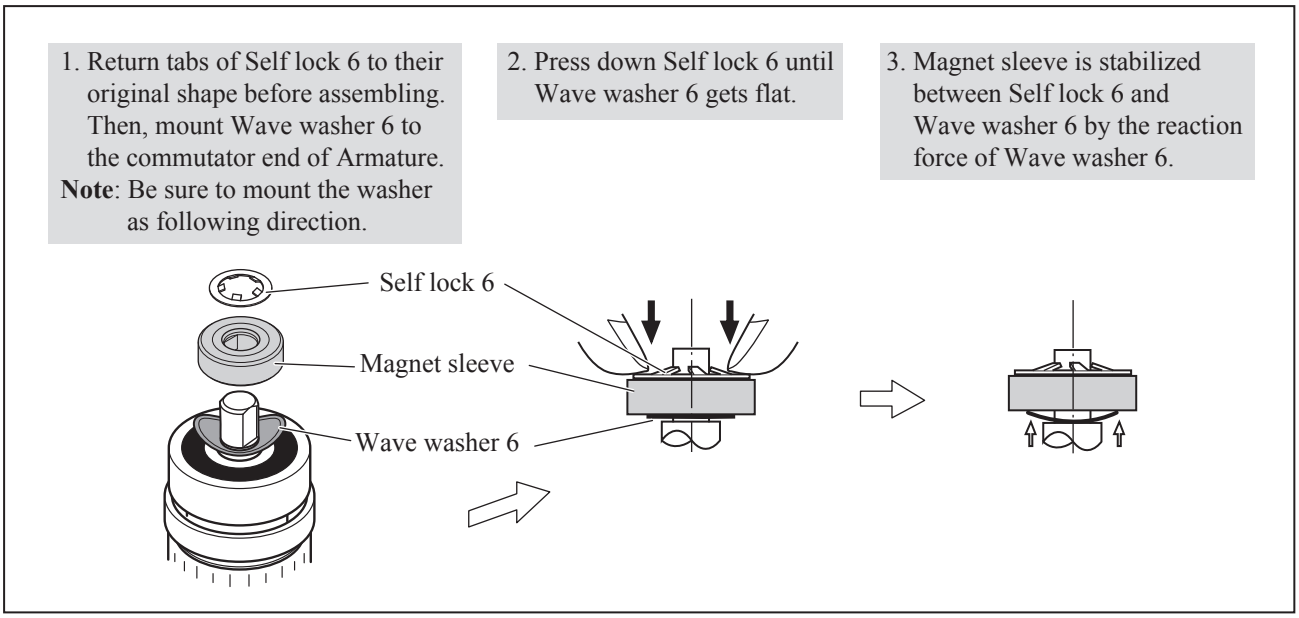
[3] DISASSEMBLY/ASSEMBLY
[3] -1. Armature (cont.)

ASSEMBLING

(1) Assemble Insulation washer, Flat washer 7 and Ball bearing 627DDW to Armature end by reversing the disassembly procedure. (Refer to **Fig. 5**)
Then, assemble Wave washer 6 and Magnet sleeve, and then secure them with Self lock 6. (**Fig. 6**)

Note: Wave washer 6 is directional when assembling to Armature end. Be sure to mount the washer with the concave side facing Magnet as following direction.

Fig. 6



(2) Assemble the component parts to the drive end of Armature by reversing the disassembly procedure. (Refer to **Fig. 4**)
(3) Assemble Armature section to Crank housing complete as drawn in **Fig. 8**.

Note: For easy assembling of Armature section, heat Crank housing complete with a heat gun after setting Connector as drawn in **Fig. 7**.

Fig. 7

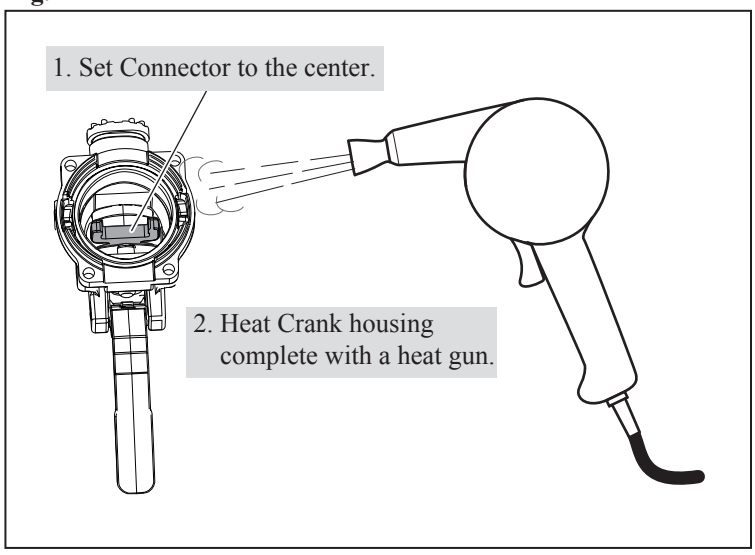
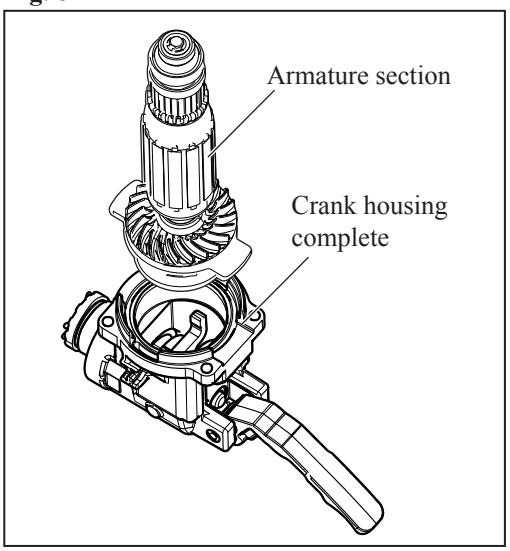


Fig. 8



Repair

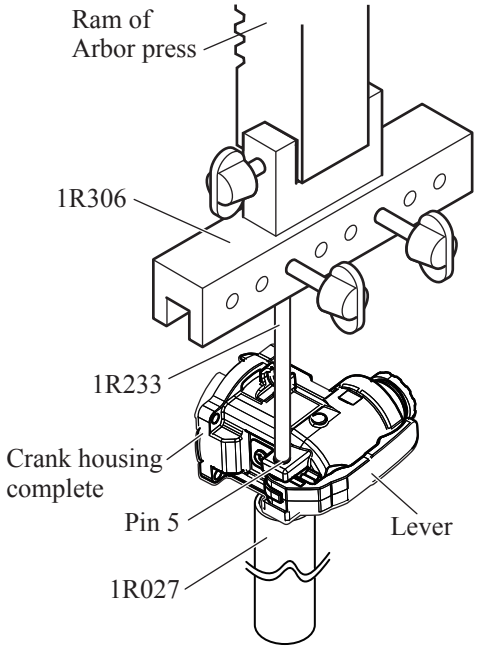
[3] DISASSEMBLY/ASSEMBLY
[3] -2. Crank housing complete

DISASSEMBLING

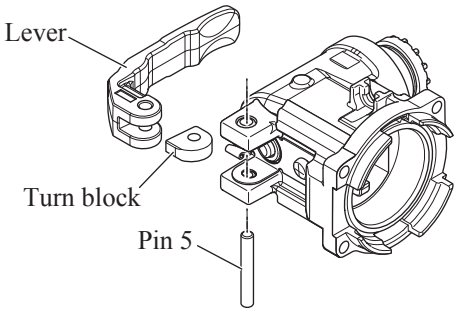
(1) Disassemble Crank housing complete as drawn in **Figs. 2** and **3**.
Note: Holder bolt has to be removed before disassembling Lever. (See the **top** illustration in **Fig. 3**.)
(2) Disassemble Lever from Crank housing complete as drawn in **Fig. 9**.

Fig. 9

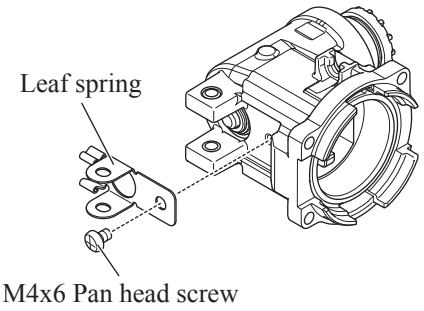
1. Install 1R306 on the ram of Arbor press. Then, set 1R233 to 1R306. And then, supporting Crank housing complete with 1R027, press Pin 5 out from Crank housing complete.



2. After removing Pin 5, disassemble Lever and Turn block from Crank housing complete.



3. Disassemble Leaf spring from Crank housing complete by unscrewing M4x6 Pan head screw.



ASSEMBLING

(1) Fasten Lever to Crank housing complete with M4x16 Tapping screw. (Refer to **lower right** illustration in **Fig. 9**.)
(2) Set Turn block to Lever as drawn in **Fig.10**.
(3) Assemble Lever portion to Crank housing complete with Pin 5 as drawn in **Fig. 11**.

Fig.10

Set Turn block while aligning its round portion to Lever's round portion.

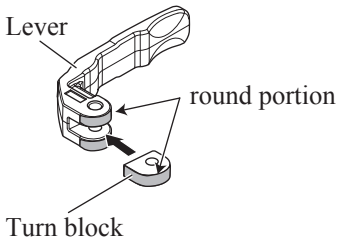
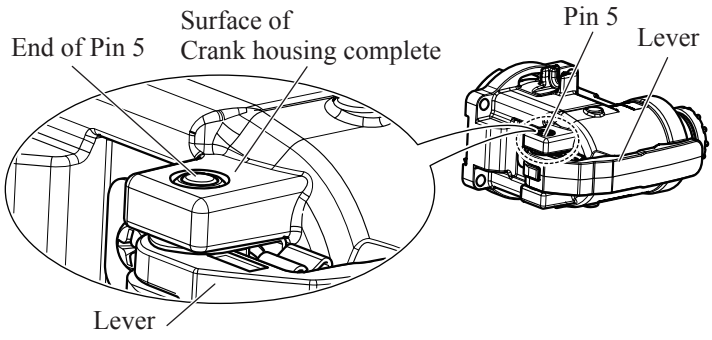


Fig. 11

Pin 5 has to be pushed into Crank housing complete until Pin's end comes to the same level to the surface of Crank housing complete.



Repair

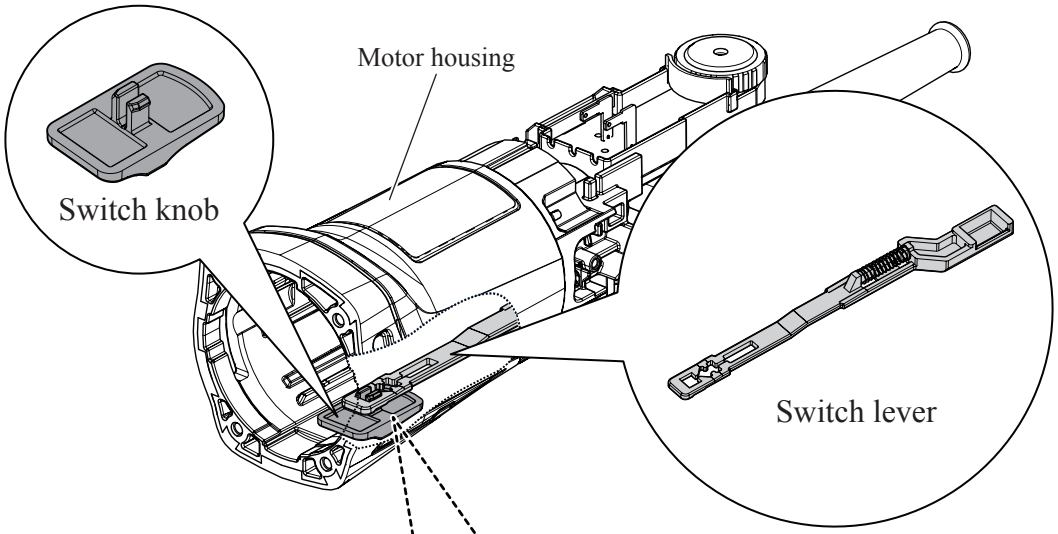
[3] DISASSEMBLY/ASSEMBLY

[3] -3. Switch lever

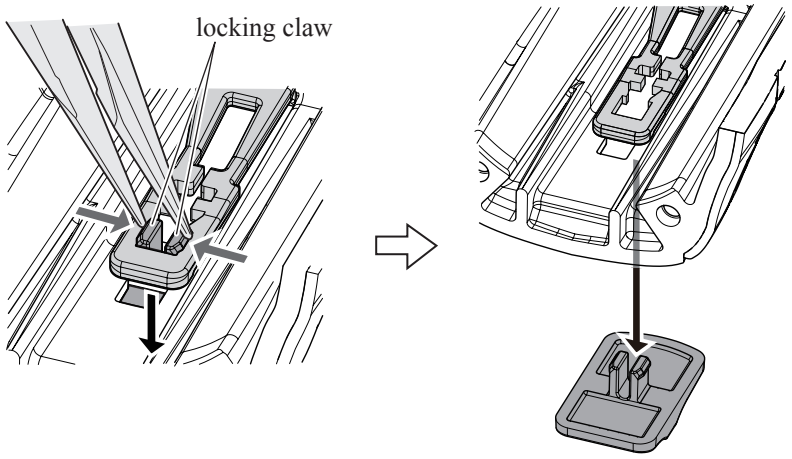
DISASSEMBLING

(1) Remove Switch knob and Switch lever. (**Fig. 12**)

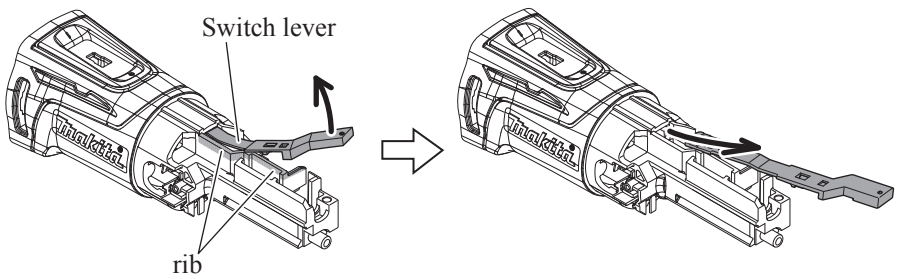
Fig. 12



1. Pressing the locking claws of Switch knob inward with small nose pliers, push Switch knob off from Motor housing.



2. Switch lever can now be removed from Motor housing by bending Switch lever to release its rear end from the ribs on Motor housing then pulling it toward Rear cover side (in the direction of the black arrow).



Repair

[3] DISASSEMBLY/ASSEMBLY

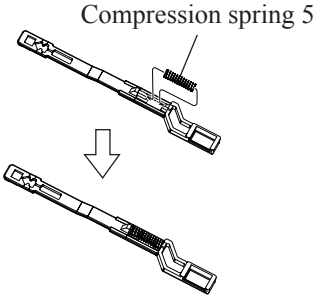
[3] -3. Switch lever (cont.)

ASSEMBLING

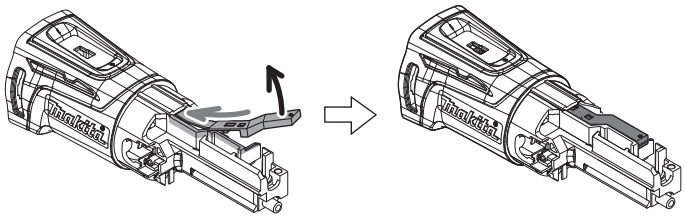
(1) Mount Switch lever and Switch knob on Motor housing. (**Fig. 13**)

Fig. 13

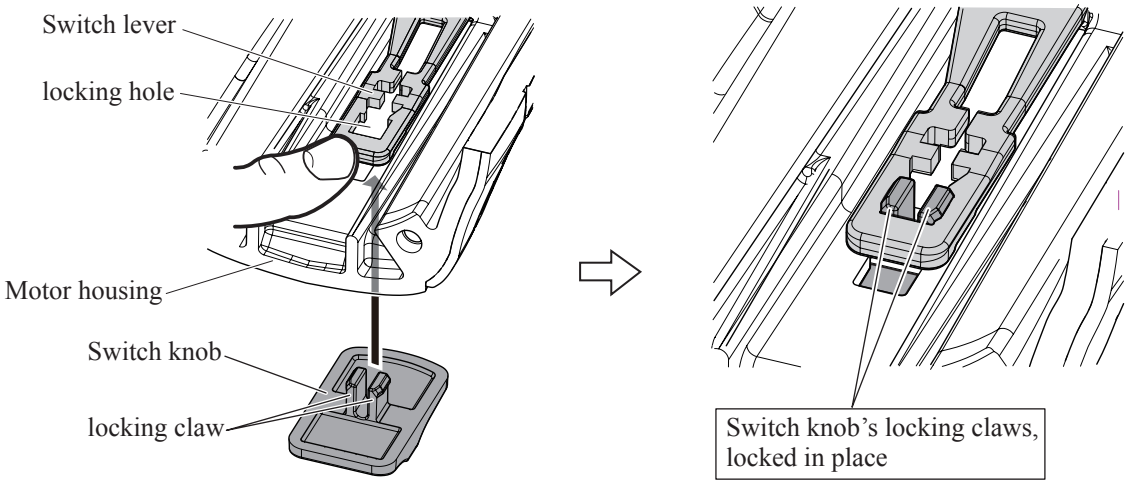
1. Make sure Compression spring 5 is mounted on the back of Switch lever.



2. Bending the rear end of Switch lever, slide Switch lever into Motor housing as drawn below.

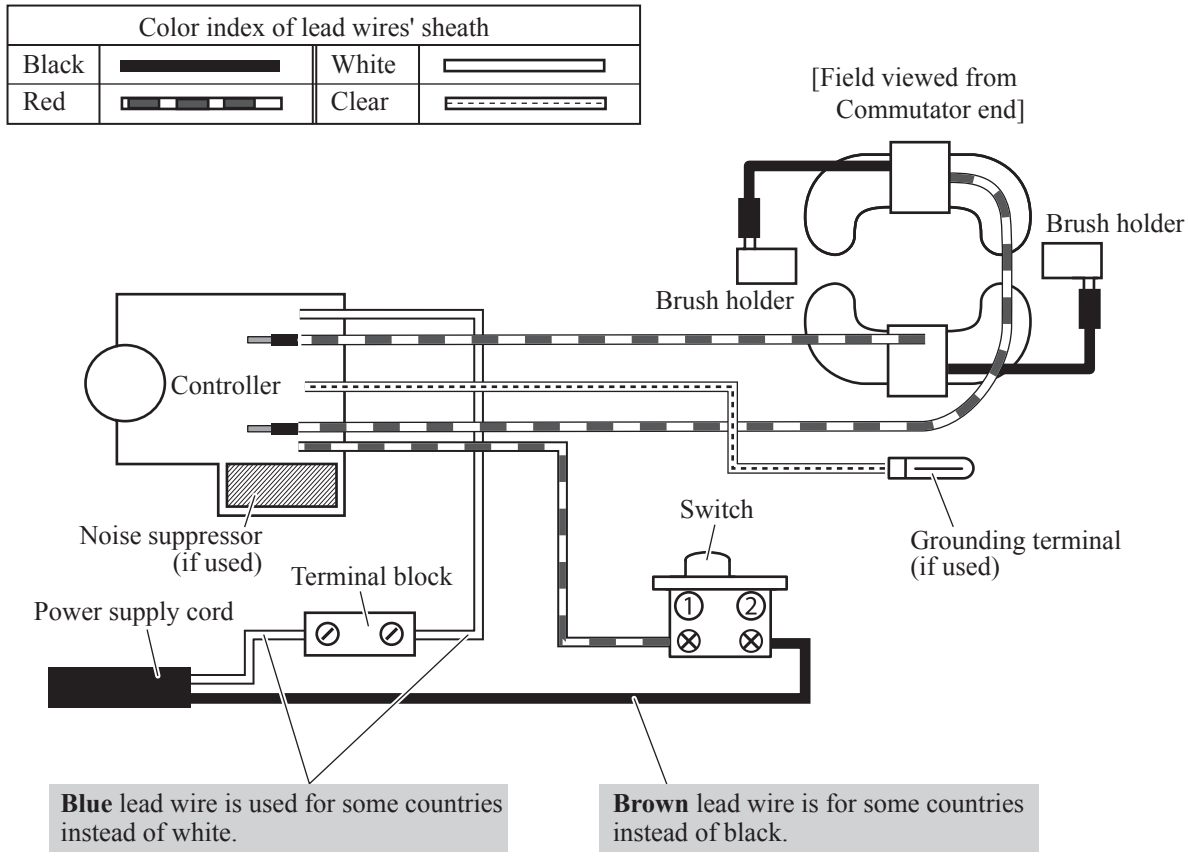


3. Pressing Switch lever against Motor housing, insert the locking claws of Switch knob into the locking hole of Switch lever.



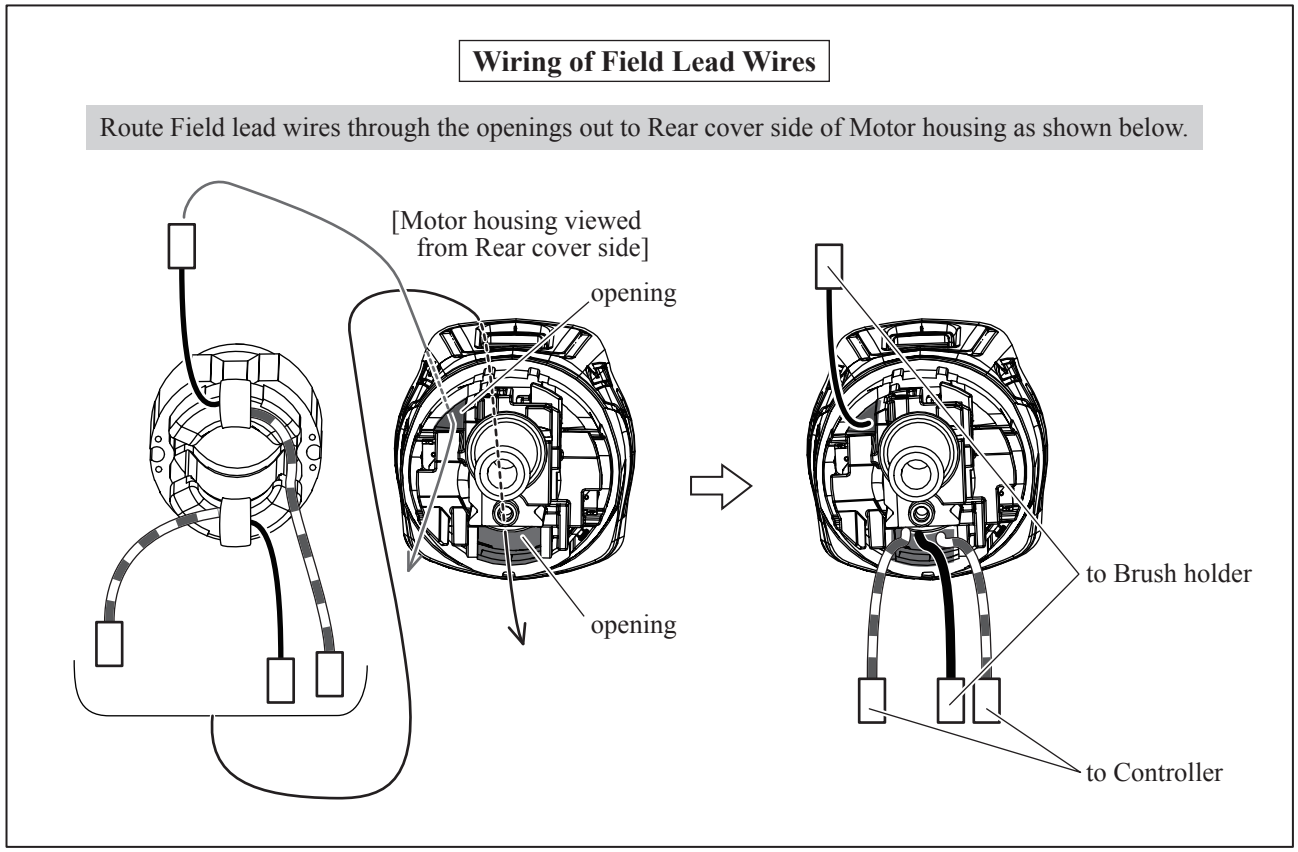
Circuit diagram

Fig. D-1



Wiring diagram

Fig. D-2



Wiring diagram

Fig. D-3

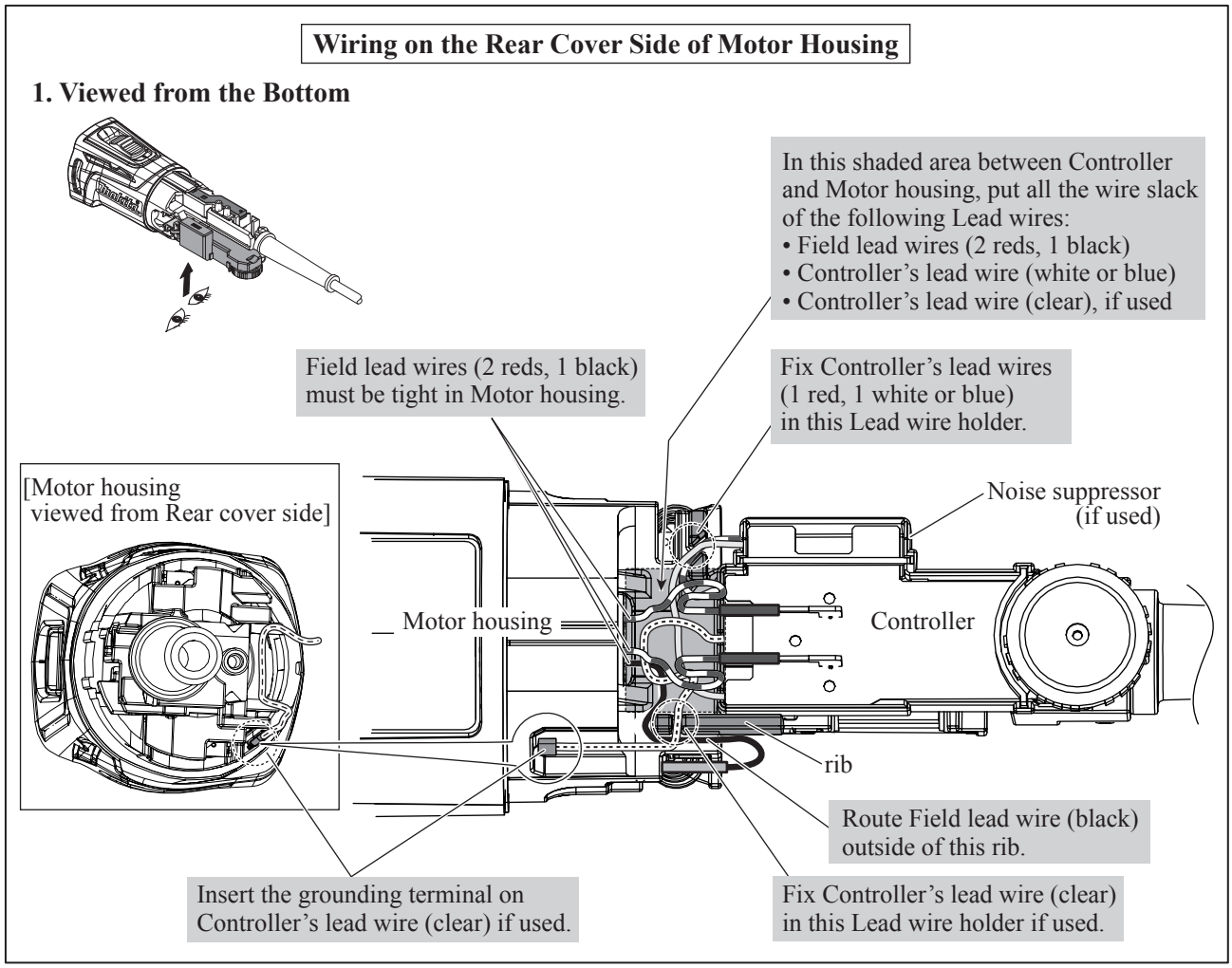
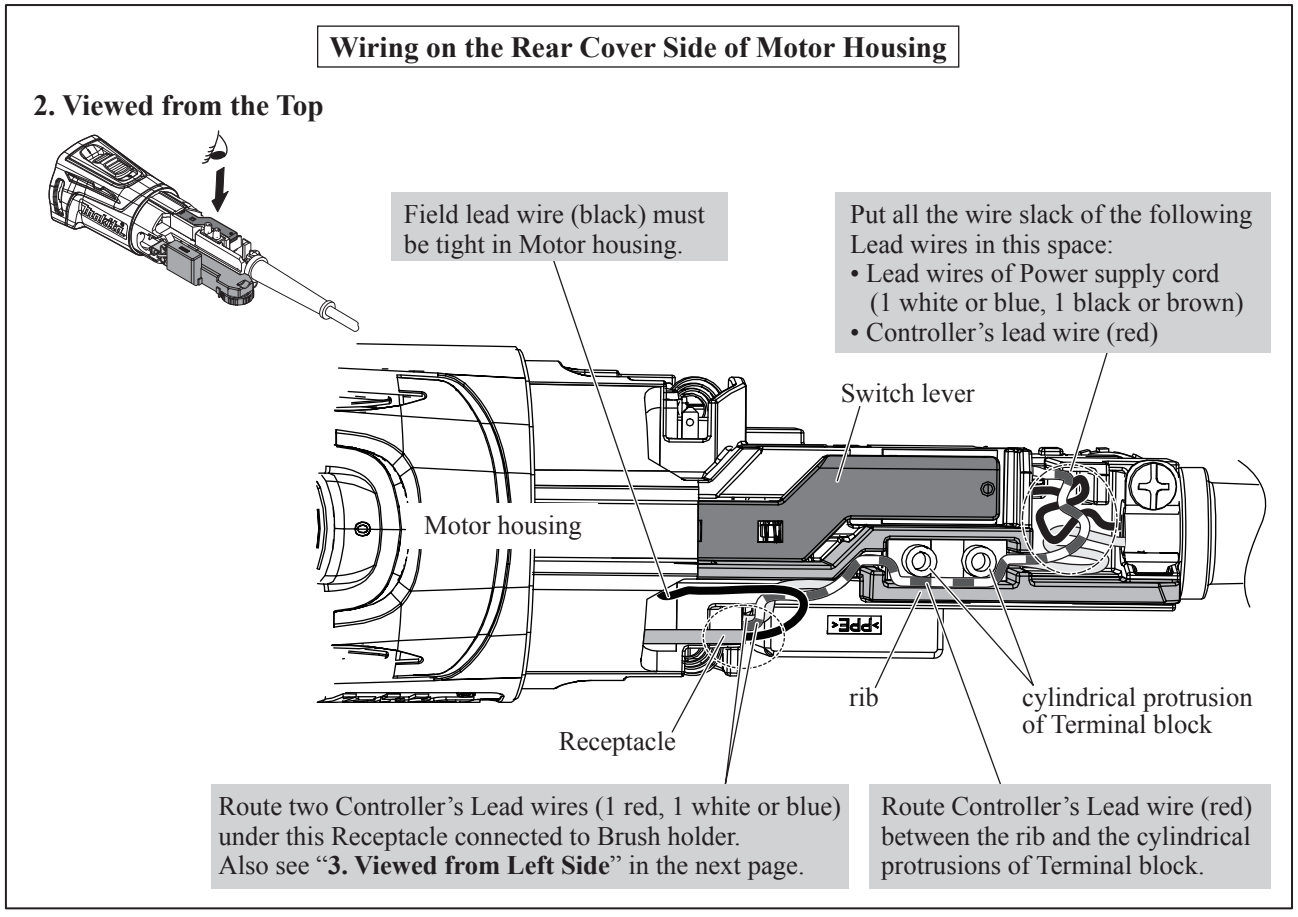


Fig. D-4

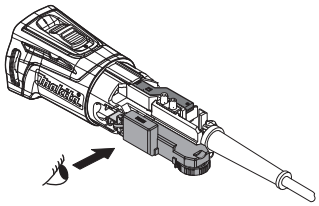


Wiring diagram

Fig. D-5

Wiring on the Rear Cover Side of Motor Housing

3. Viewed from Left Side



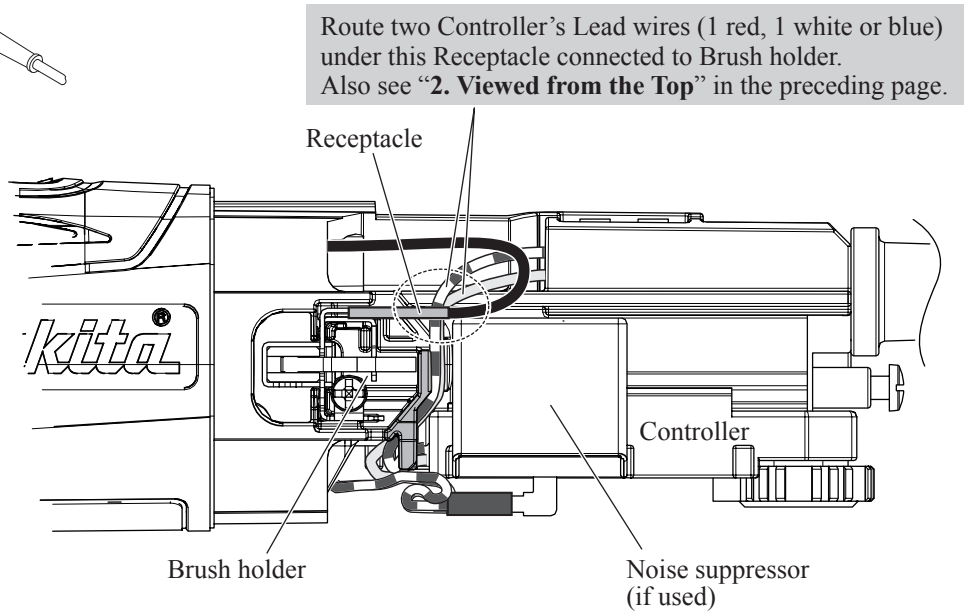


Fig. D-6

Wiring on the Rear Cover Side of Motor Housing

4. Viewed from Right Side