

OFFICIAL USE  
For ASC



# DIE GRINDER

## GD0600

# REPAIR MANUAL



## ► Repair

**CAUTION: Remove the wheel from the machine and disconnect from the power source for safety before repair/ maintenance !**

### [1] NECESSARY REPAIRING TOOLS

Code No.	Description	Use for
1R027	Bearing Setting Pipe 18-10.2	Assembling Ball bearing 629LLB to Barrel
1R036	Bearing Setting Pipe 17.2	Supporting Barrel when assembling Ball bearing 629LLB to Barrel
1R045	Gear Extractor, large	Removing/Assembling Ball bearing 6001LLB from/to Spindle
1R232	Pipe 30	Supporting Barrel, when removing Spindle
1R247	Round Bar for Arbor 20-100	Removing Ball bearing 629LLB from Barrel
1R269	Bearing Extractor	Removing Ball bearing 607LLB from the commutator end of Armature
1R282	Round Bar for Arbor 8-50	*Removing/Assembling Spindle from/to the Barrel section *Removing Armature from Gear housing cover
1R291	Retaining Ring S and R Pliers	Removing/Assembling Retaining ring S-12 from/to Spindle
1R346	Center Attachment	Removing/mounting ball bearing 6001LLB from/to Spindle
784416-4	Socket Bit 17-55	Removing/Assembling Coupling to Spindle

### [2] LUBRICATION

Apply machine oil to the following portions designated with the black triangle to protect parts and product from unusual abrasion.

Item No.	Description	Portion to lubricate
4	Spindle	Surface that contacts Felt ring 17

**Fig. 1**

The diagram illustrates the assembly of a spindle. From left to right, the components are: a Bearing Retainer, a Felt ring 17, a Flat Washer 18, and the Spindle (labeled with a circled 4). The Spindle is shown inserted into a Barrel. A black triangle points to the contact surface between the Spindle and the Felt ring 17, indicating the area to be lubricated.

► **Repair**

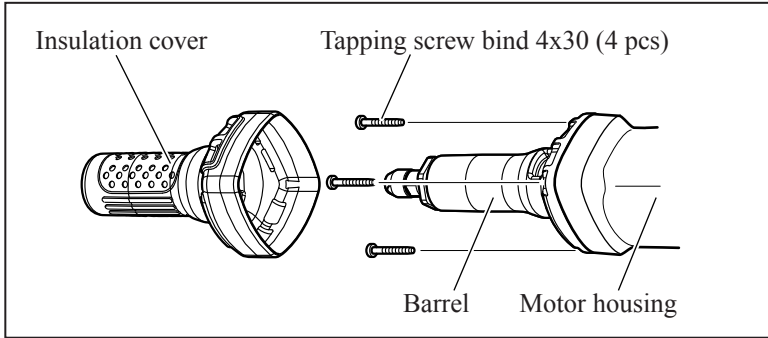
**[3] DISASSEMBLY/ASSEMBLY**

**[3] -1. Barrel section and Spindle**

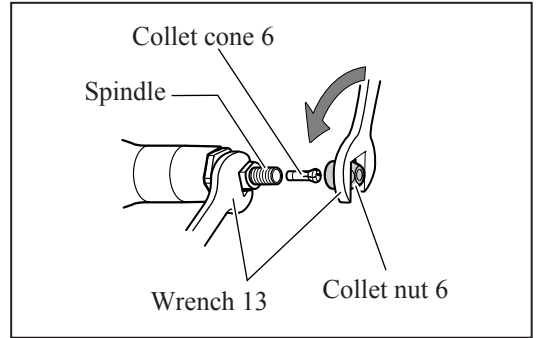
DISASSEMBLING

- 1) After removing Insulation cover from Barrel, unscrew four 4x30 Tapping screws as illustrated in **Fig. 2**. Then separate Barrel from Motor housing.
- 2) Holding Spindle with wrench 13, remove Collet nut 6 by turning counterclockwise with another wrench 13. Then remove Collet cone 6 from Spindle. (**Fig. 3**)

**Fig. 2**

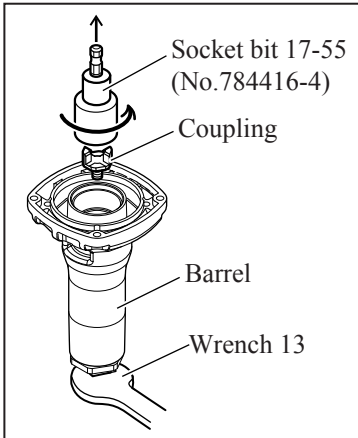


**Fig. 3**

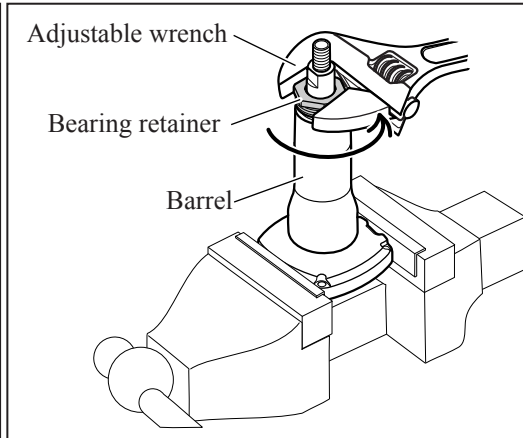


- 3) Holding Spindle with wrench 13, remove Coupling by turning counterclockwise with impact driver equipped with Socket bit 17-55 (No.784416-4). (**Fig. 4**)
- 4) Fix Barrel in vise. Then remove Bearing retainer by turning counterclockwise with adjustable wrench. (**Fig. 5**) Felt ring 17 may be removed together with Bearing retainer in this step.
- 5) Remove Felt ring 17 and Flat washer 18 from Barrel. (**Fig. 6**)

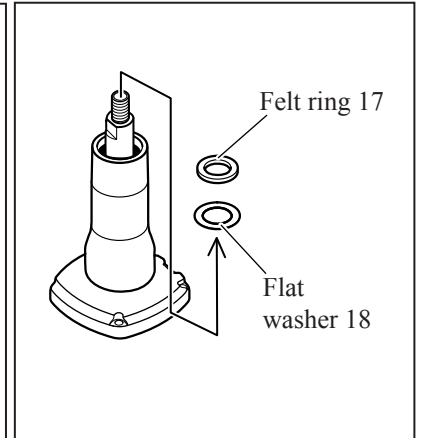
**Fig. 4**



**Fig. 5**

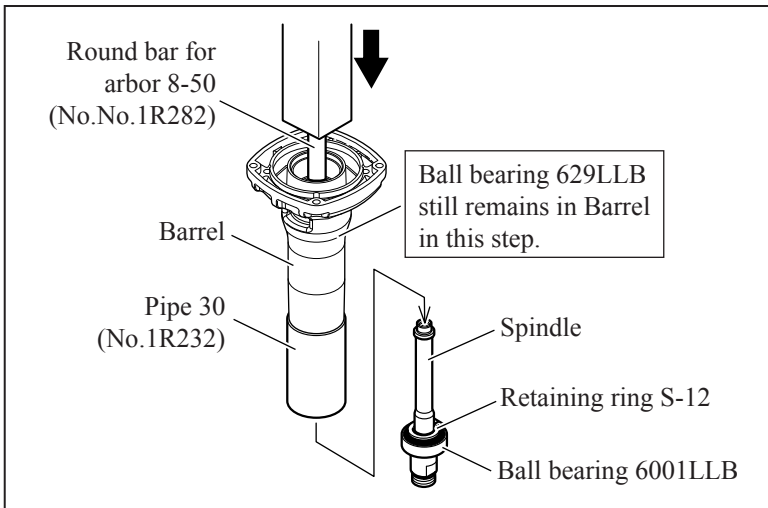


**Fig. 6**

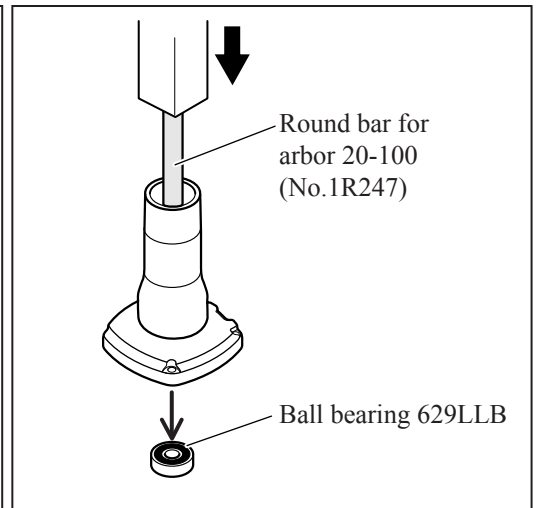


- 6) Put Barrel on Pipe 30 (No.1R232). Then remove Spindle from Barrel by pressing down with arbor press and Round bar for arbor 8-50 (No.1R282). (**Fig. 7**)
- 7) Remove Ball bearing 629LLB from Barrel by pressing down with arbor press and Round bar for arbor 20-100 (No.1R247). (**Fig. 8**)

**Fig. 7**



**Fig. 8**



## ► Repair

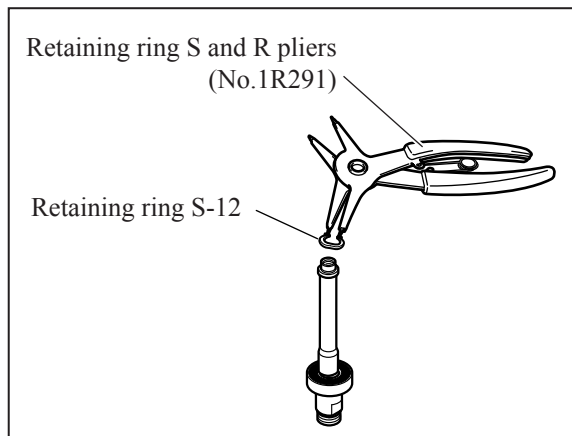
### [3] DISASSEMBLY/ASSEMBLY

#### [3] -1. Barrel section and Spindle

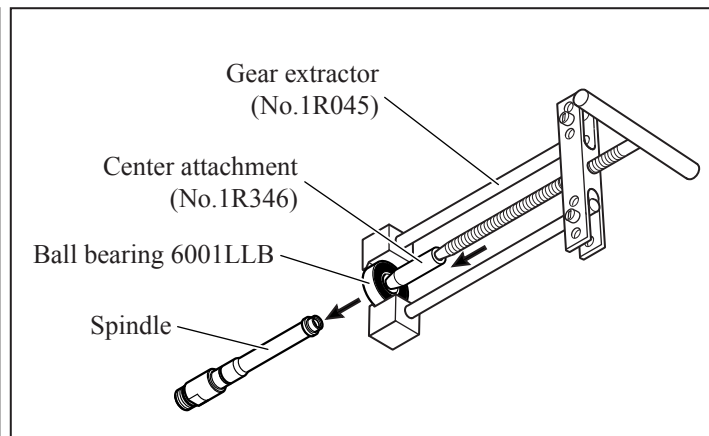
##### DISASSEMBLING

- 8) Remove Retaining ring from Spindle S-12 using Retaining ring S and R pliers (No.1R291). **(Fig. 9)**
- 9) Remove Ball bearing 6001LLB from Spindle using Gear extractor (No.1R045) and center attachment (No.1R346). **(Fig. 10)**

**Fig. 9**



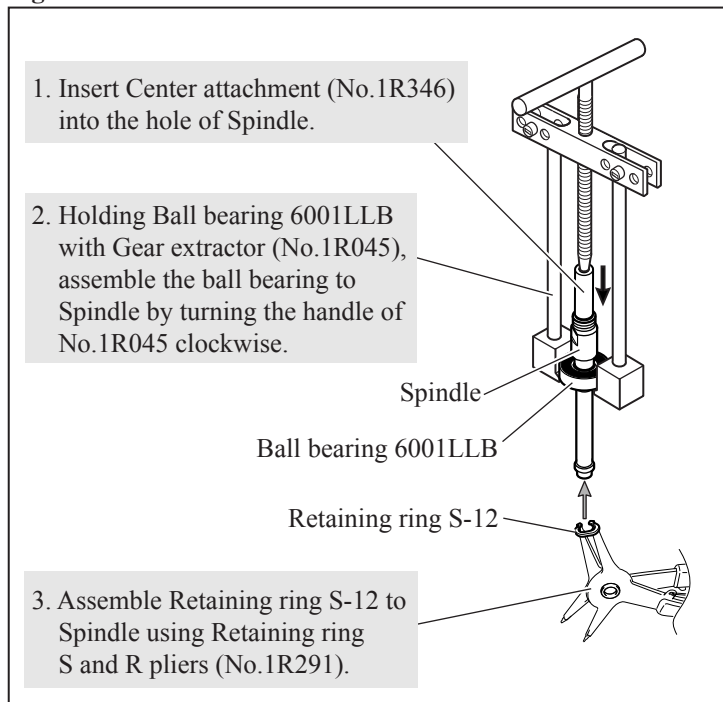
**Fig. 10**



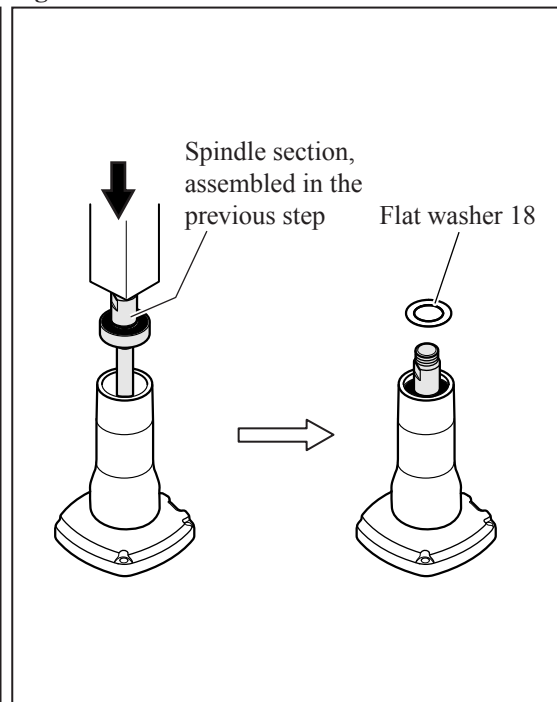
##### ASSEMBLING

- 1) Assemble the Spindle section. **(Fig. 11)**
- 2) Mount the Spindle section to Barrel by pressing down with arbor press. Then mount Flat washer 18. **(Fig. 12)**

**Fig. 11**



**Fig. 12**



## ► Repair

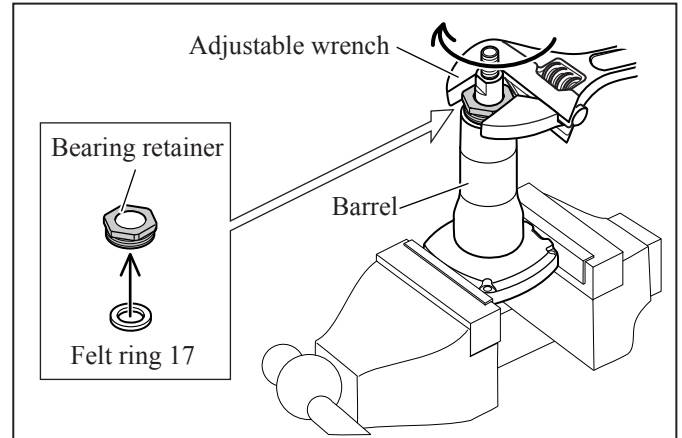
### [3] DISASSEMBLY/ASSEMBLY

#### [3] -1. Barrel section and Spindle

##### ASSEMBLING

- 3) Assemble Felt ring 17 to Bearing retainer.  
Then fix barrel with vise, and fasten Bearing retainer to Barrel by turning clockwise with adjustable wrench. (Fig. 13)

Fig. 13



- 4) Put Barrel on Bearing setting pipe 17.2 (No.1R036), and press-fit Ball bearing 629LLB in Barrel using arbor press and Bearing setting pipe 17.2 (No.1R027). (Fig. 14)
- 5) Holding Spindle with wrench 13, assemble Coupling to Barrel by turning clockwise with impact driver equipped with Socket bit 17-55 (No.784416-4). (Fig. 15)

Fig. 14

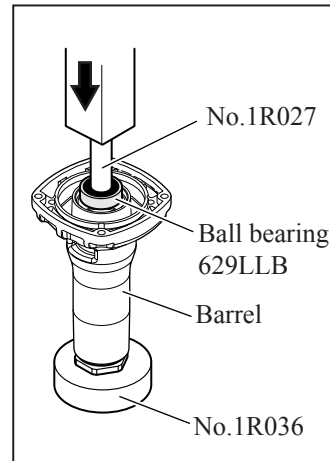
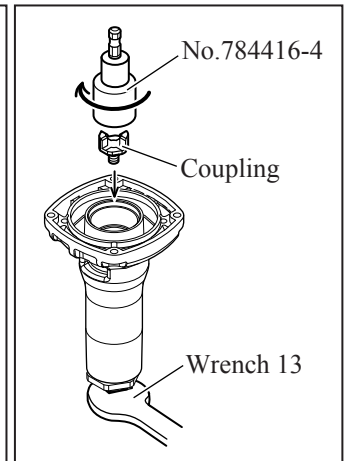


Fig. 15



#### [3] -2. Armature

##### DISASSEMBLING

- 1) Remove Rear cover (L and R) from Motor housing by unscrewing two 4x35 Tapping screws. (Fig. 16)
- 2) Pull out Carbon brush halfway in order to disconnect from the commutator of Armature. (Fig. 17)  
After removing Insulation cover and Barrel (Fig. 2), separate the assembly of Armature and Gear housing cover from Motor housing. (Fig. 17)

Fig. 16

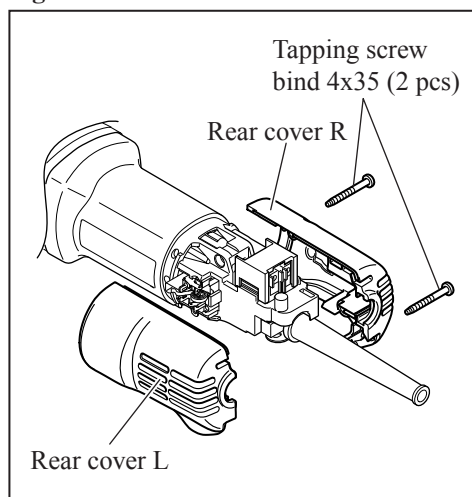
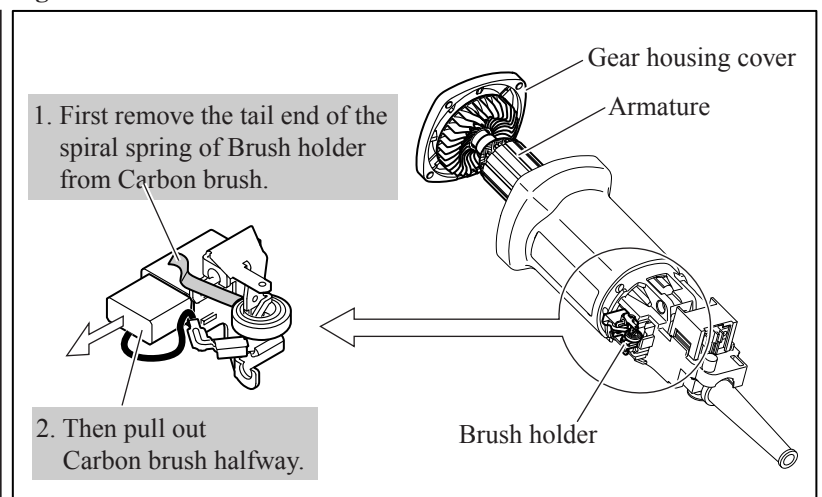


Fig. 17



► **Repair**

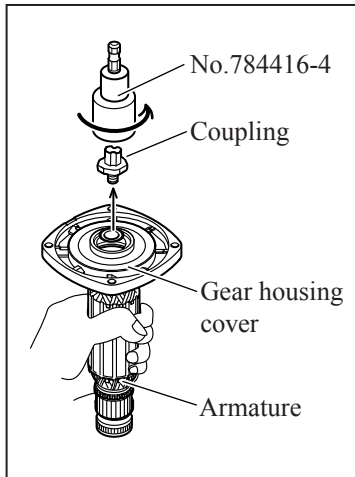
**[3] DISASSEMBLY/ASSEMBLY**

**[3] -2. Armature**

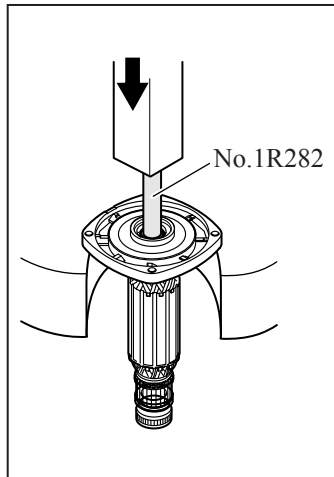
**DISASSEMBLING**

- 3) Holding Armature by hand, remove Coupling by turning counterclockwise with impact driver equipped with Socket bit 17-55 (No. 784416-4). (**Fig. 18**)
- 4) With Round bar for arbor 8-50 (No.1R282) applied to the Armature shaft, separate Armature from Gear housing cover using arbor press. (**Fig. 19**)
- 5) After removing Labyrinth rubber ring 19, remove Ball bearing 607LLB from Armature using Bearing extractor (No.1R269). (**Fig. 20**)

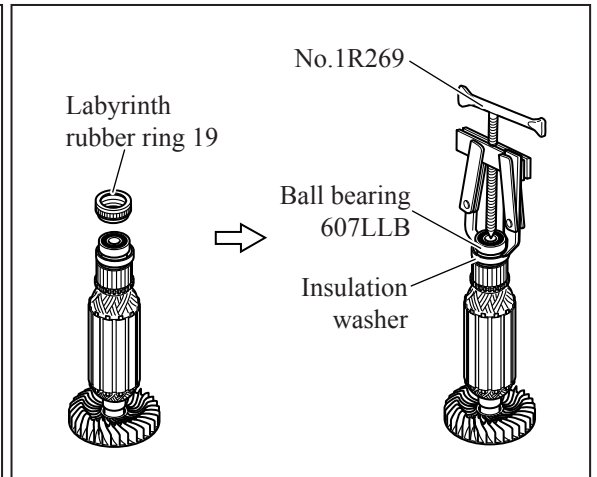
**Fig. 18**



**Fig. 19**



**Fig. 20**



**ASSEMBLING**

Do the reverse of the disassembling steps.

**[3] -3. Paddle Switch Lever**

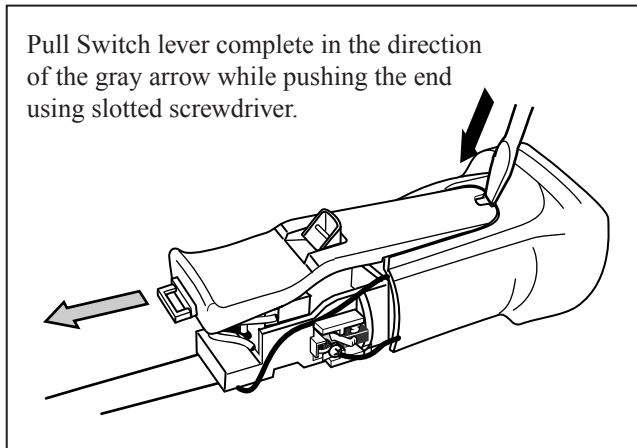
**DISASSEMBLING**

After removing Rear cover L and R, Switch lever complete can be separated from Motor housing as illustrated in **Fig. 21**.

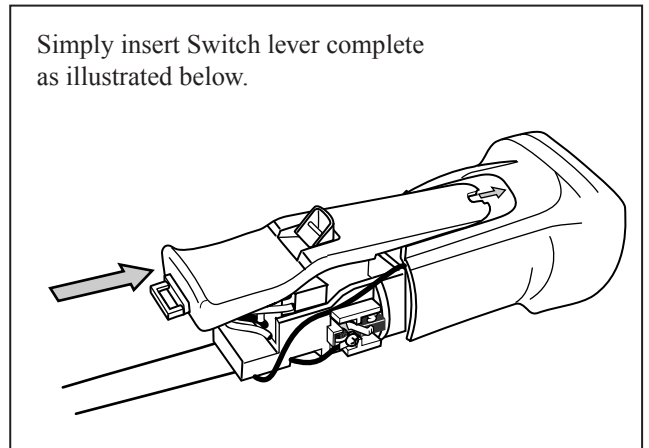
**ASSEMBLING**

Switch lever complete can be assembled to motor housing as illustrated in **Fig. 22**.

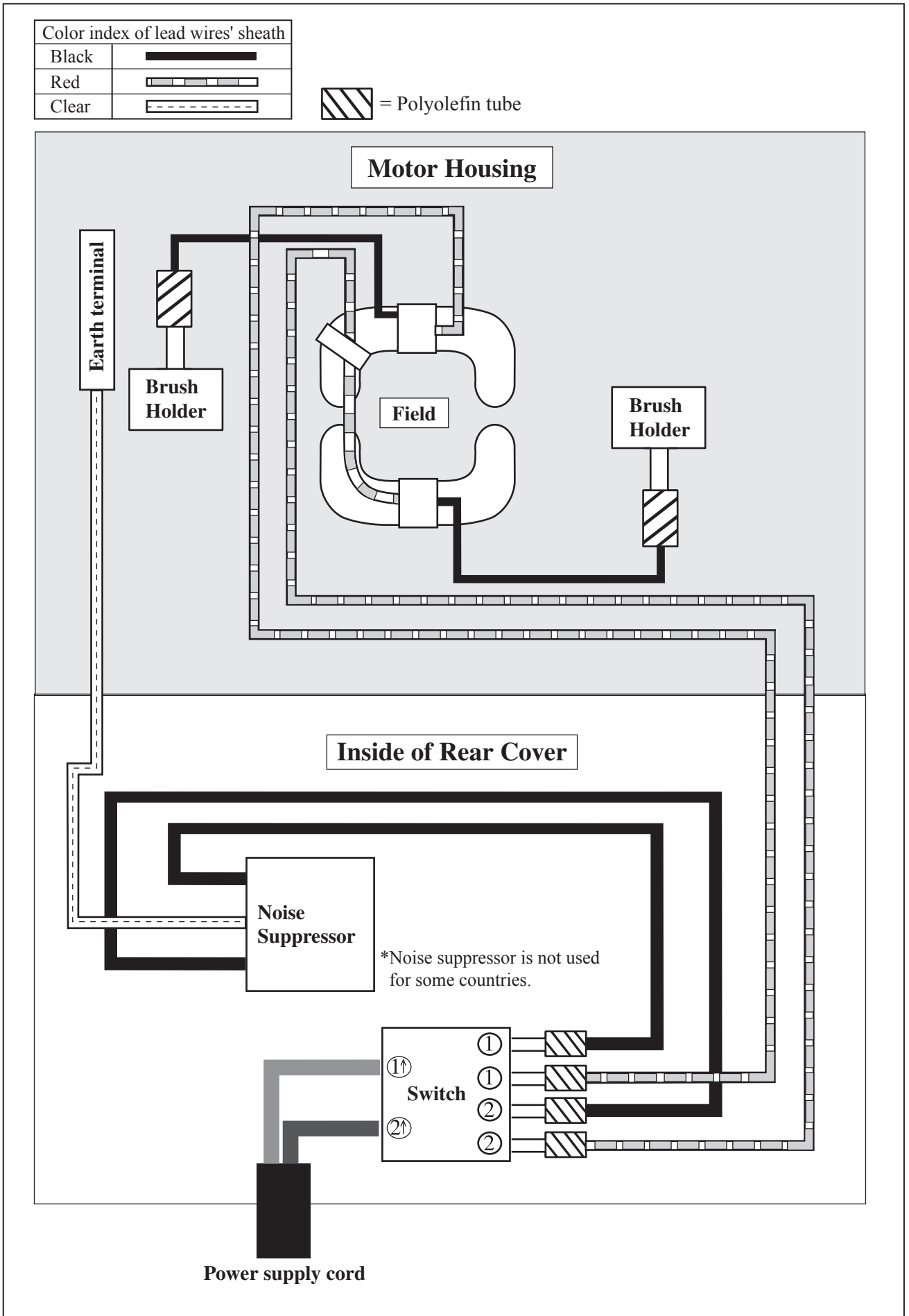
**Fig. 21**



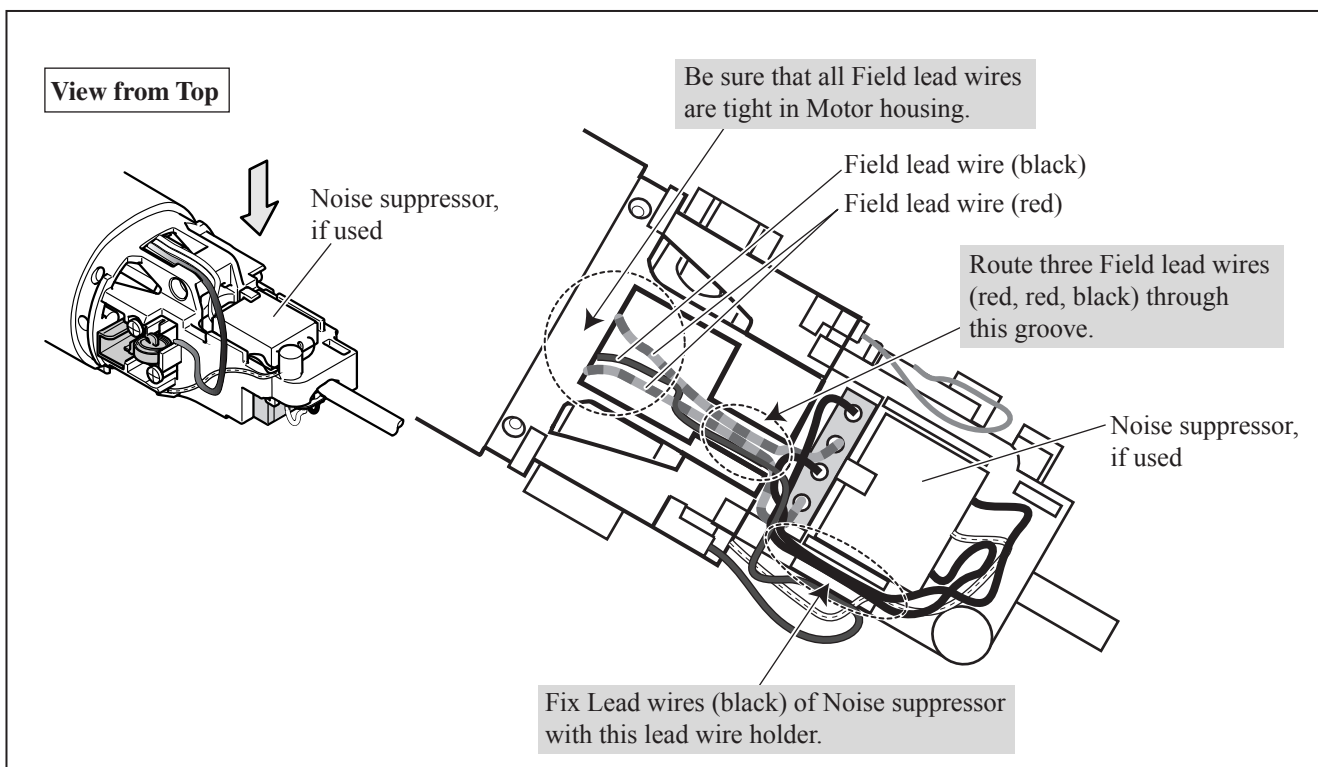
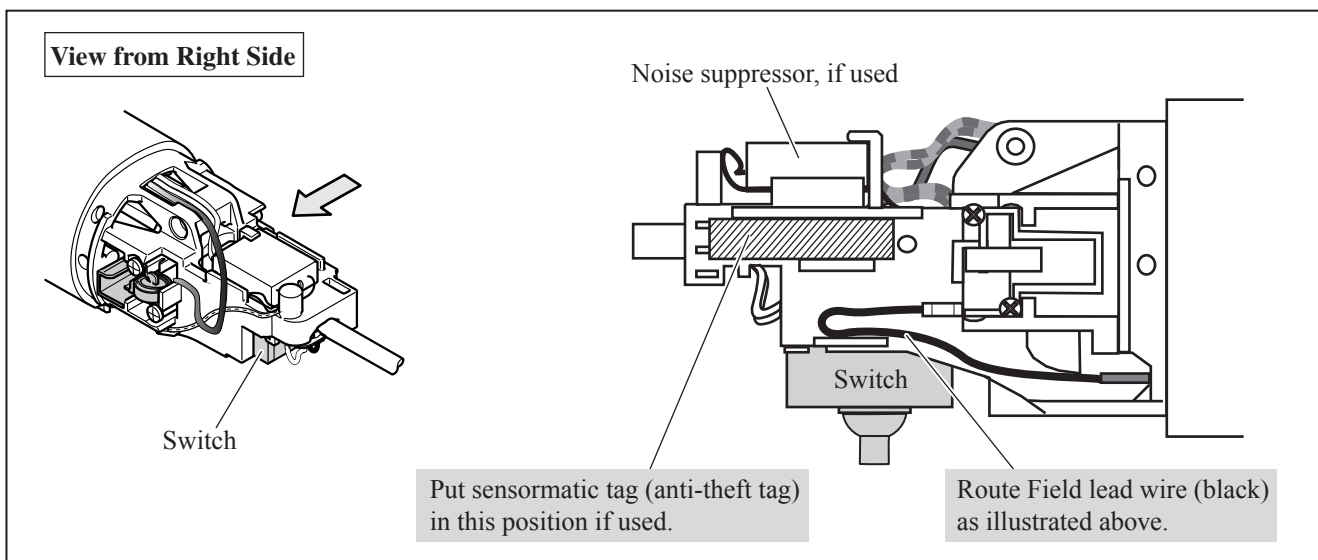
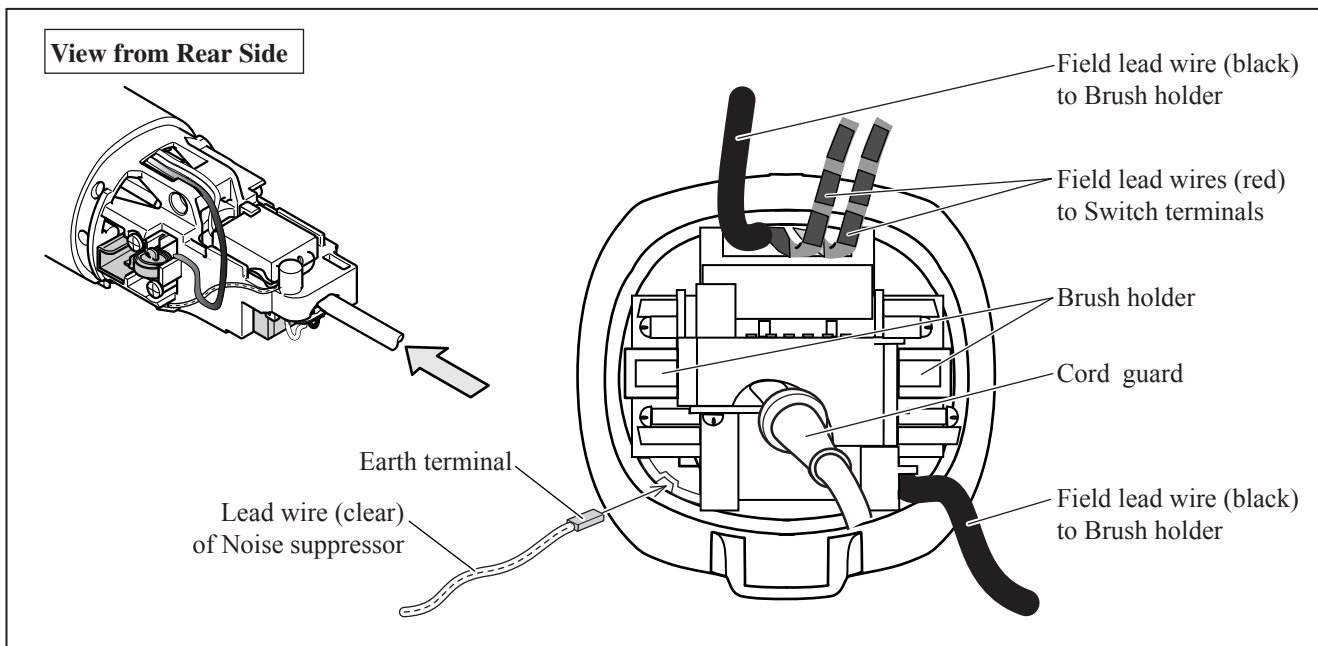
**Fig. 22**



► **Circuit diagram**

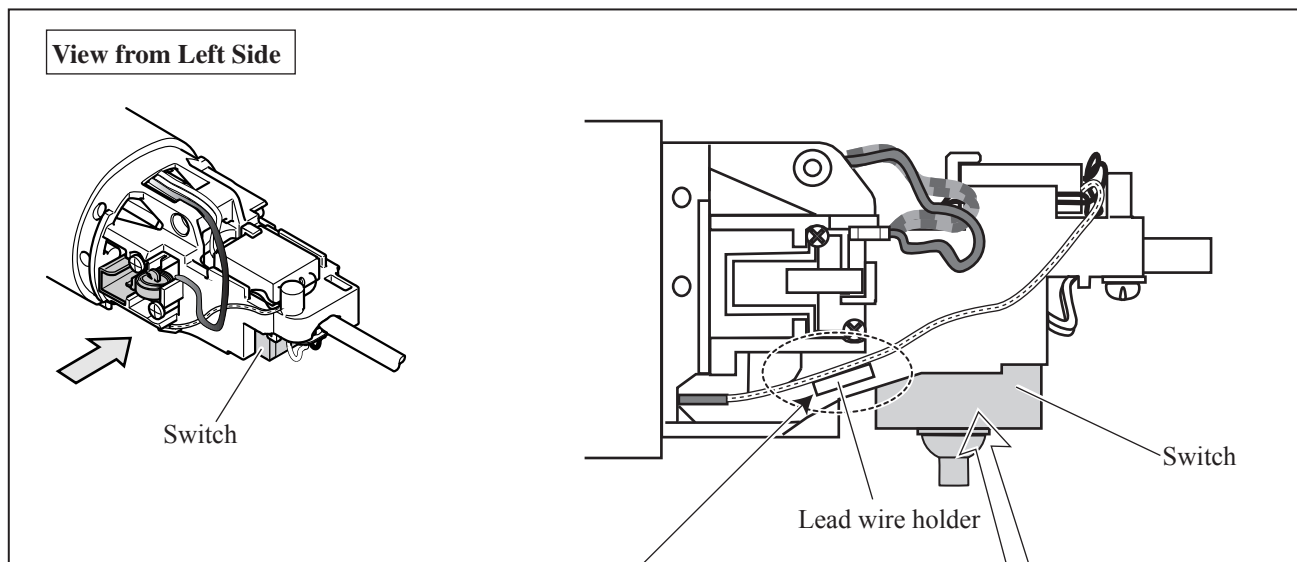


► **Wiring diagram**





► **Wiring diagram**



Route the lead wire (clear) of Noise suppressor as illustrated above and below.  
Be sure to fix with this lead wire holder.

From the ON-OFF button side, connect the lead wires of Power supply cord with the terminals on Switch.

