

TECHNICAL INFORMATION



PRODUCT

P 1 / 9

Models No. ▶ 6827

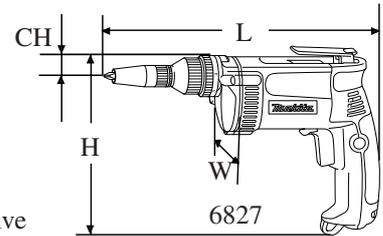
Description ▶ Screwdriver

CONCEPTION AND MAIN APPLICATIONS

These new models have been developed from Model 6823 for matured line-up of Makita Screwdrivers.

While they have the same powerful motor and the ergonomic designed body as Model 6823 ;

6827 features the same 6 stage torque control system as Model 6805BV for effective screwdriving of various screws.



| Dimensions : mm (") | |
|-----------------------|---------------|
| Length (L) | 304 (12) |
| Height (H) | 218 (8-5/8) |
| Width (W) | 70 (2-3/4") |
| Center height (CH) | 23.3 (15/16") |

► Specification

| Voltage (V) | Current (A) | Cycle (Hz) | Continuous Rating (W) | | Max. Output(W) |
|-------------|-------------|------------|-----------------------|--------|----------------|
| | | | Input | Output | |
| 120 | 6.5 | 50/60 | (710) | 340 | 590 |
| 220 | 2.7 | 50/60 | 570 | 260 | 570 |
| 230 | 2.6 | 50/60 | 570 | 260 | 570 |
| 240 | 2.5 | 50/60 | 570 | 260 | 570 |

| | |
|--------------------------------|--|
| No load speed (min-1=rpm) | 0 - 2,500 |
| Driving shank : mm (") | 6.35 (1/4) |
| Max. driving capacity | Self drilling screw 6mm (#14) Hex screw 6mm (#14) Machine screw M8 (5/16") |
| Fastening torque adjustment | Yes (6 stages) |
| Fastening depth adjustment | Yes |
| Reverse switch | Yes |
| Retractable belt clip | Yes |
| Soft-grip handle | Yes |
| Protection from electric shock | by double insulation |
| Cord length : m (ft) | 2.5 (8.2) / 4.0m (13.1) for Europe |
| Weight : Kg (lbs) | 1.8 (4.0) |

► Standard equipment

* Plastic case 1 pc.

< Note > The standard equipment for the tool shown may differ from country to country.

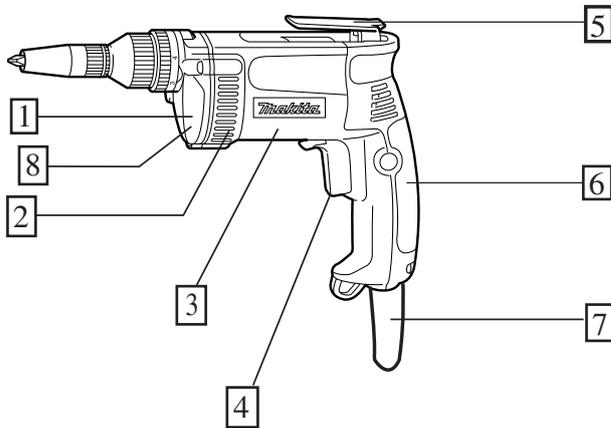
► Optional accessories

* Various philips bits and socket bits
* Various magnetic socket bits

* Front cap 12
* Front cap 15.5
* Front cap 1/4
* Front cap 5/16
* Front cap 3/8
* Front cap 5/16

Model 6827

Features Fastening Torque Control



1 Solid Aluminum Gear Housing

2 Air Outlet Designed for Operator's Comfort

Cooling air is exhausted towards the bit side for comfortable operation.

3 Slim but Powerful 570W Motor

4 Large Switch with Reversing Lever and Lock-Off Button

Convenient for single-handed operation.

5 Belt Clip is Retractable into Motor Housing.

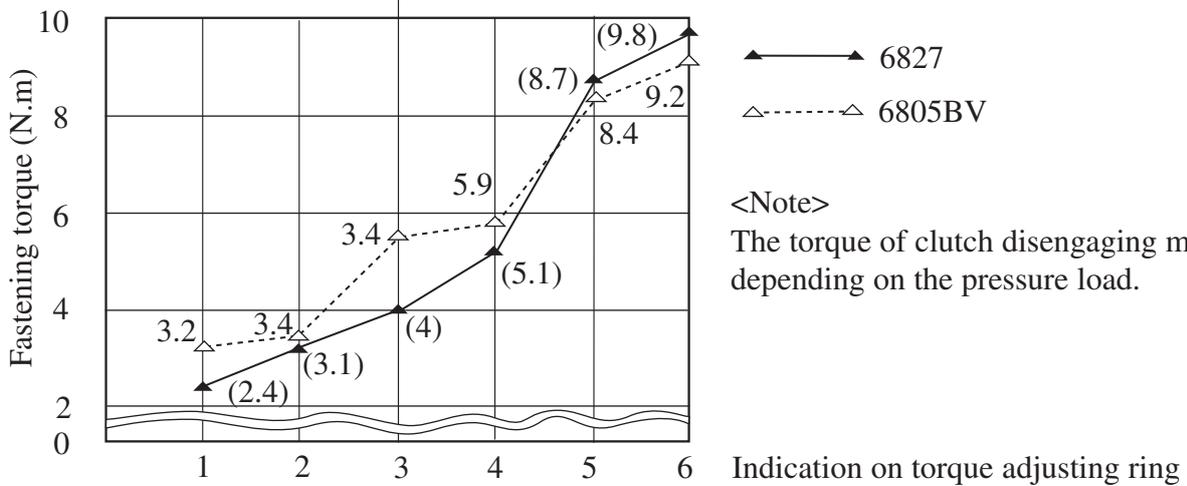
6 Ergonomic Designed Soft Grip Handle

Presses the machine just along the spindle axis for effective screwdriving.

7 Durable Cord Guard against Frequent Inflection

8 Low noise and suppressed vibration thanks to pin type silent clutch

The relation of indication on torque adjusting ring and torque of clutch disengaging



<Note>
The torque of clutch disengaging may differ depending on the pressure load.

Indication on torque adjusting ring and capacity

| Screws and its size | Indication on torque adjusting ring |
|----------------------------|---|
| Machine screw M5 - M8 | 1 - 3 |
| Wood screw 3.5 | 1 |
| Wood screw 4.1 | 1 |
| Wood screw 4.5 | 1 |
| Wood screw 5.1 | 2 - 3 |
| Wood screw 5.8 | 3 - 4 |
| Wood screw 6.2 | 4 - 5 |
| Self drilling screw 5 .6mm | 6 In case of self drilling screws, the clutch does not disengage. So, the stopper has to be used. |

* The above listed figures may differ depending on the working conditions, such as quality of screws, materials to be fastened, pressure load, etc.

| Model No. | Makita | | Competitor A | |
|---------------------------------------|---|---------------|---------------------------------|---------------|
| | 6827 | 6805BV | A-a | |
| Power Input (W) | 570 | 510 | — | |
| Continuous rating current (A) on 120V | 6.5 | 4.8 | 6.5 | |
| No load speed : min-1=rpm | 0 - 2,500 | | | |
| Max. screwdriving capacity | Self drilling screw : 6mm (#14) Hex screw : 6mm (#14) Wood screw : 6.2mm (1/4") Machine screw : M8 (5/16") | | Self drilling screw : 6mm (#14) | |
| Fastening torque control | Yes (6 stages) | | Yes (10 stages) | |
| Fastening depth adjustment | Yes | | No | |
| Belt clip | Yes (Retractable) | Yes | Yes | |
| Soft-grip handle | Yes | No | Yes | |
| Double insulation | Yes | | | |
| Center height : mm (") | 23.3 (15/16) | 29.5 (1-3/16) | 25.6 (1) | |
| Dimensions : mm (") | Length | 304 (12) | 279 (11) | 302 (11-7/8) |
| | Width | 70 (2-3/4) | 73 (2-7/8) | 65 (2-9/16) |
| | Height | 218 (8-5/8) | 199 (7-7/8) | 176 (6-15/16) |
| Net Weight : Kg (lbs) | 1.8 (4.0) | 1.9 (4.2) | 1.5 (3.2) | |
| Standard equipments | Plastic case | Steel case | | |

Comparison of fastening speed per screw

Numbers in chart below are relative values when setting 6805BV 's capacity as 100.

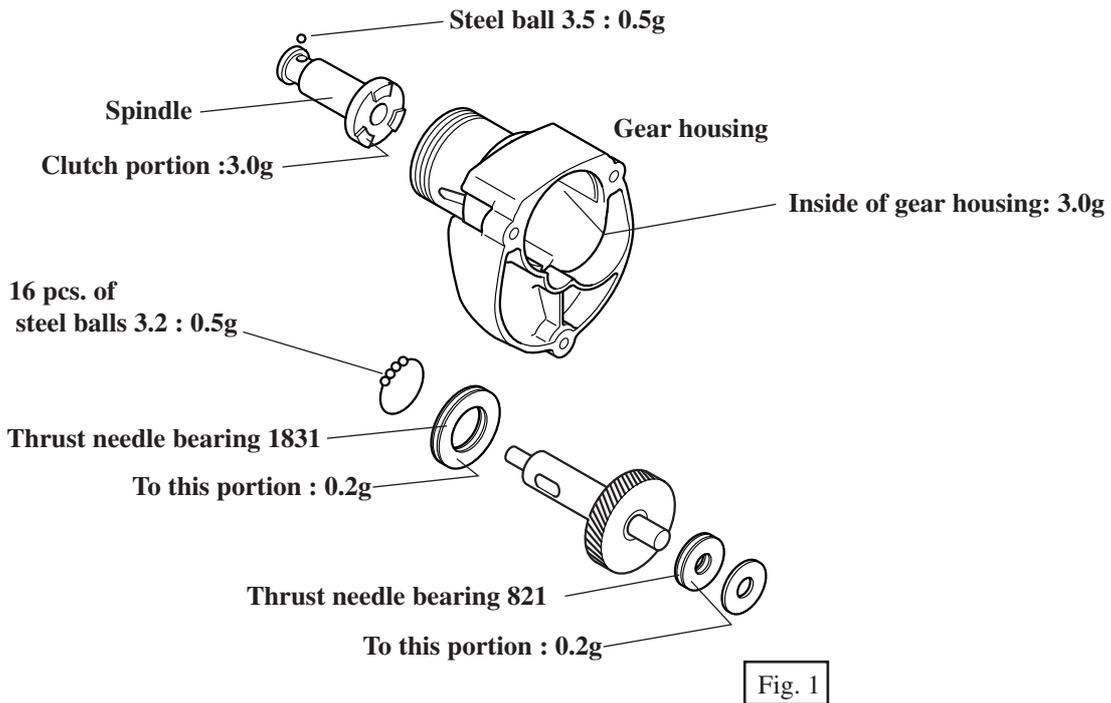
Testing conditions

- * Testing voltage : 120 V
- * The connected extension cord : 1.25mm² x 60m
- * Pressure load : 150 N / 200 N

| Model | | Pressure load : 150 N | Pressure load : 200 N | Testing materials | |
|--------------|--------|-----------------------|-----------------------|-------------------------|---|
| | | | | Screws | Materials to be fastened |
| MAKITA | 6827 | 100 | 110 | Hex screw Ø6 x 25mm | Spruce: 2mm thick + Steel : 3.2mm thick |
| | 6805BV | 100 | 100 | | |
| Competitor A | A-a | 90 | 110 | | |
| MAKITA | 6827 | 95 | 105 | Hex screw Ø4 x 25mm | Steel : 3.2mm thick |
| | 6805BV | 100 | 100 | | |
| Competitor A | A-a | 85 | 100 | | |
| MAKITA | 6827 | 140 | 120 | Teks screw Ø6 x 16mm | Steel : 3.2mm thick |
| | 6805BV | 100 | 100 | | |
| Competitor A | A-a | 110 | 90 | | |
| MAKITA | 6827 | 110 | 110 | Teks screw Ø6 x 70mm | Spruce: 3.2mm thick + Lauan |
| | 6805BV | 100 | 100 | | |
| Competitor A | A-a | 95 | 100 | | |

< 1 > Lubrication

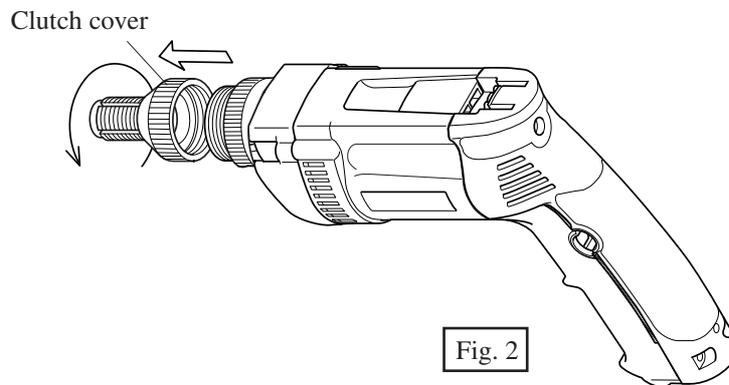
Apply MAKITA Grease N No.1 to the parts illustrated in Fig. 1.



< 2 > Disassembling

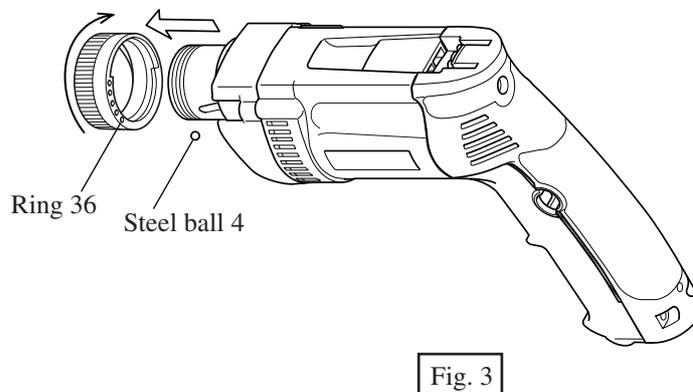
(1) Disassembling clutch cover

Disassemble clutch cover by turning it clockwise as illustrated in Fig. 2.



(2) Disassembling ring 36

Disassemble ring 36 by turning it anti-clockwise as illustrated in Fig. 3.



< Note > Pay attention, not to lose steel ball 4 in this process.

(3) Disassembling ball bearing 606

Disassemble ball bearing 606 by striking gear housing with plastic hammer as illustrated in Fig. 4.

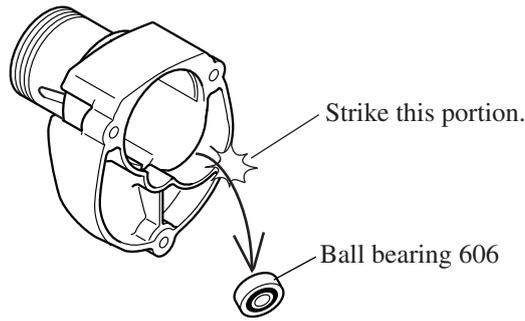


Fig. 4

(4) Disassembling torque adjusting section

Take off torque adjusting section after removing 2 pcs. of pins 4 and gear complete 17-35 as illustrated in Fig. 5 and Fig. 5A..

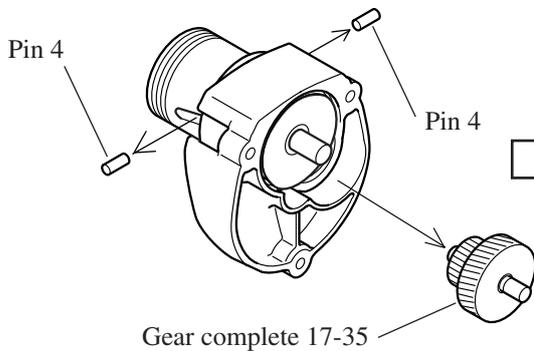


Fig. 5

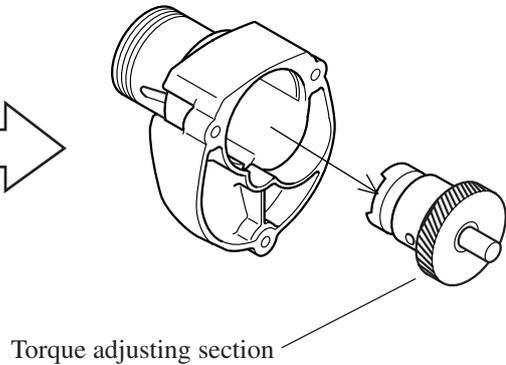


Fig. 5A

Turn the handle of large gear extractor clockwise, so clutch cam is pressed to gear portion, and then 3 pcs. of steel balls 5.6 which is fixing clutch cam on gear complete, can be taken off from gear complete.

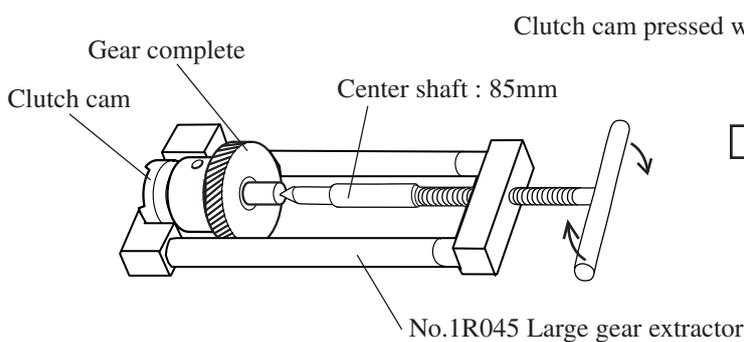


Fig. 6

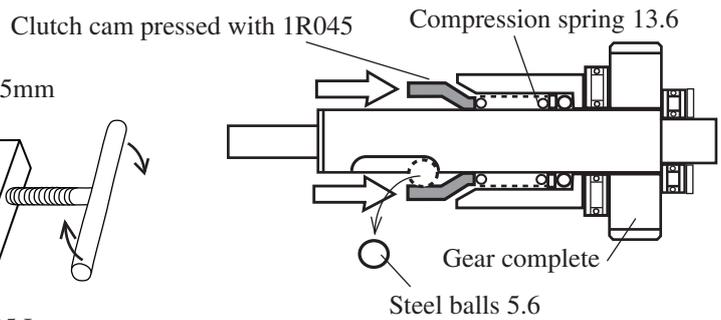


Fig. 6A

After removing 3 pcs. of steel ball 5.6, the torque adjusting section can be disassembled as illustrated in Fig. 6B.

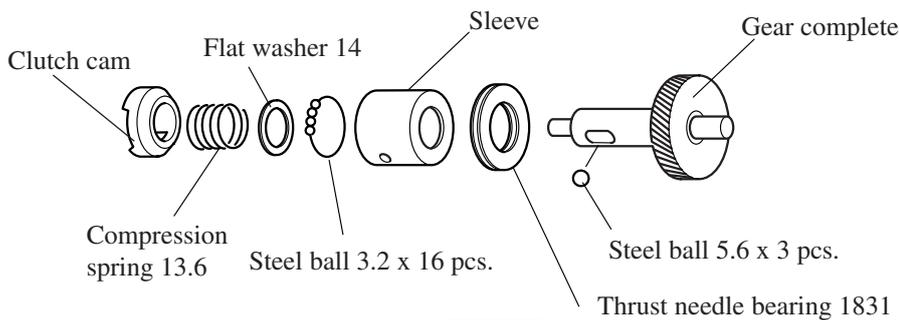


Fig. 6B

< 3 > Assembling

(1) Assembling torque adjusting section See Fig. 7.

Assemble the following parts to gear complete.

- * Thrust needle bearing 1831
- * Sleeve

Place flat washer 14 on the 16 pcs. of steel balls 3.2 which have been put on the bottom of sleeve. And then, place compression spring 13.6 and clutch cam on the flat washer 14.

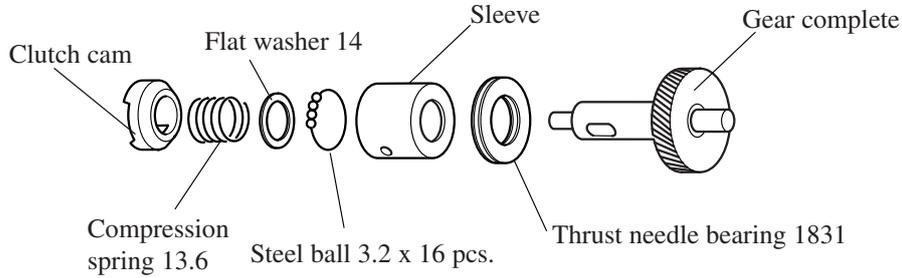


Fig. 7

Place 3 pcs. of steel ball 5.6 into the groove of gear complete by pressing clutch cam with No.1R045 to the gear side as illustrated in Fig. 7A.

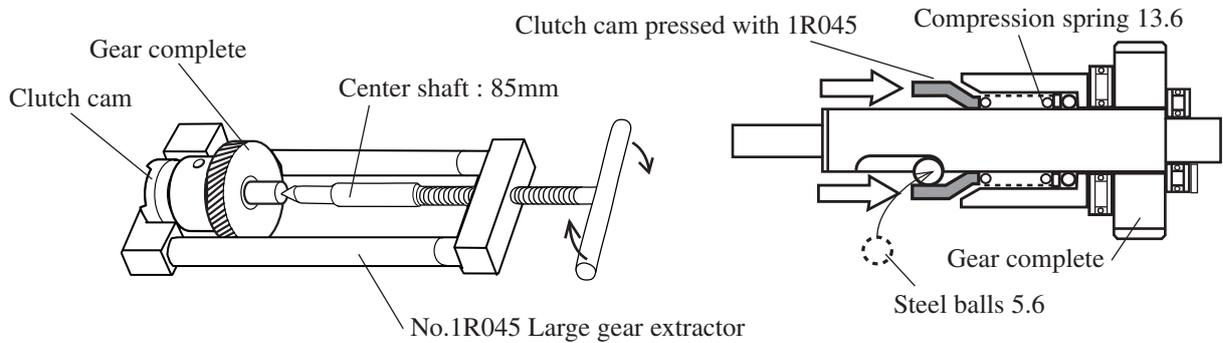


Fig. 7A

(2) Assembling torque adjusting section to gear housing

Assemble torque adjusting section to gear housing with aligning sleeve's hole with elliptic hole of gear housing. And then, assemble 2 pcs. of pins 4 to the elliptic hole of gear housing which has been aligned with sleeve's hole.

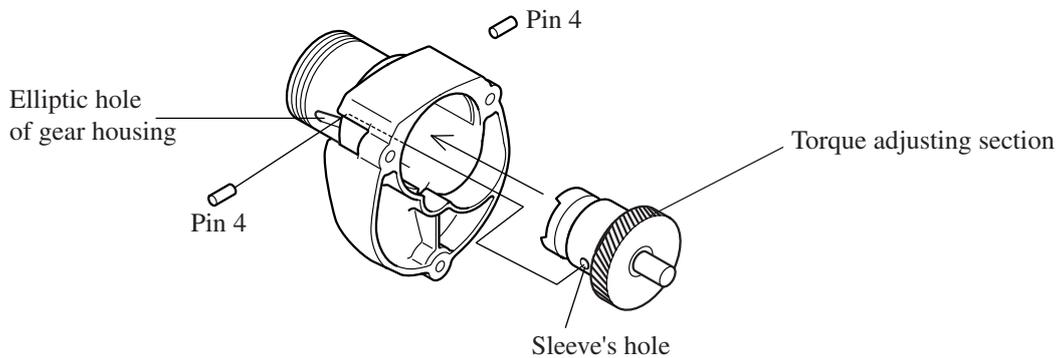
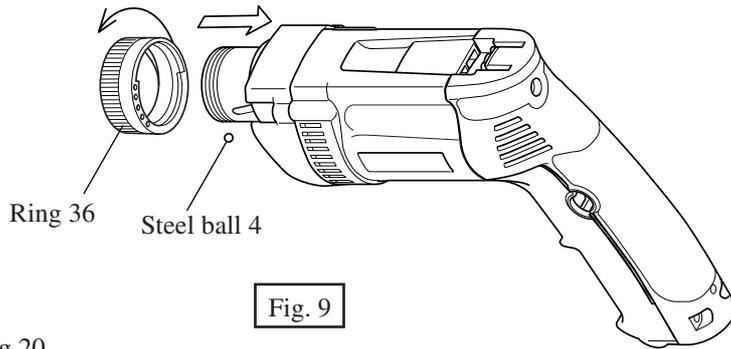


Fig. 8

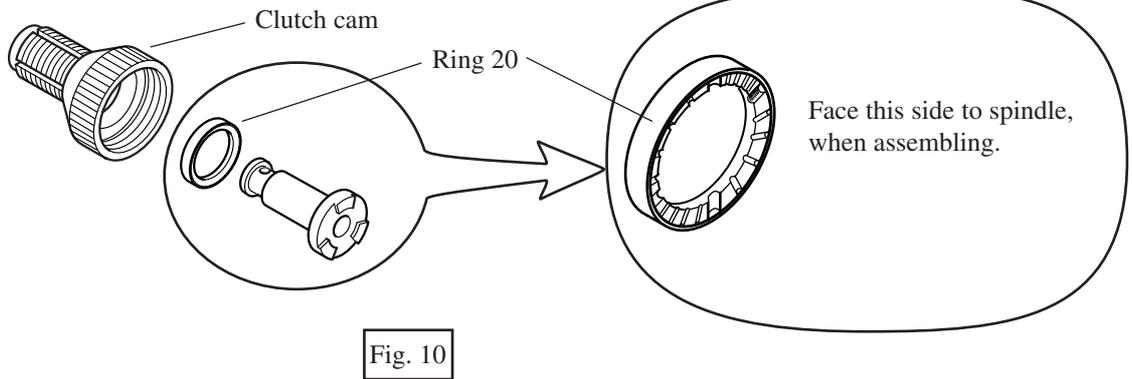
(3) Assembling ring 36

Assemble ring 36 to gear housing by turning it clockwise as illustrated in Fig. 9. Pay attention, not to lose steel ball 4 in this process.



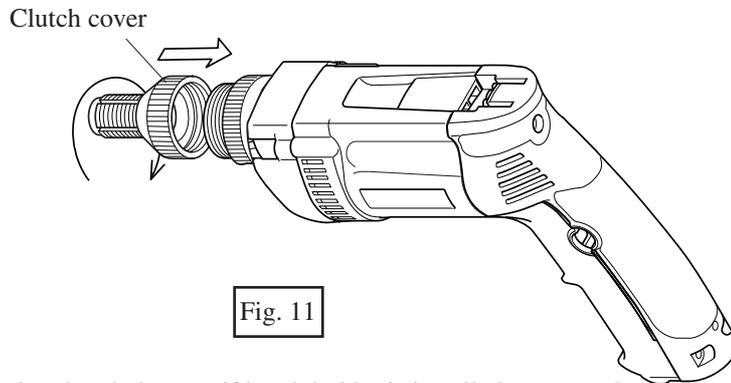
(4) Assembling ring 20

Assemble ring 20 into clutch cover as illustrated in Fig. 10.



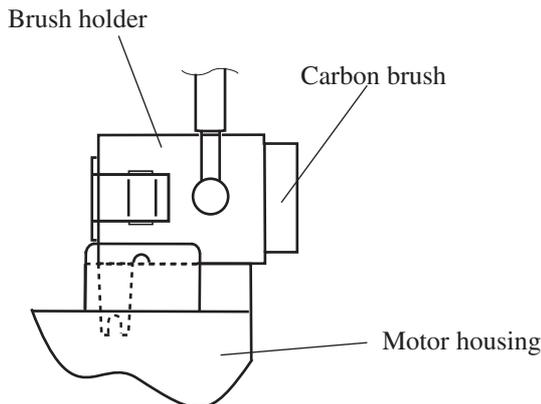
(5) Assembling clutch cover

Assemble clutch cover to gear housing by turning it anti-clockwise as illustrated in Fig. 11.



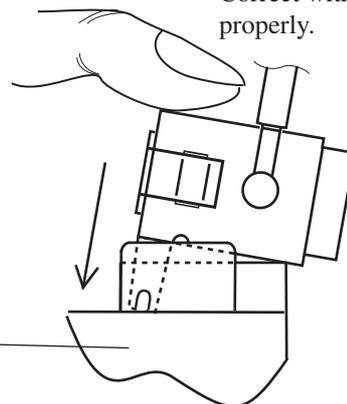
(6) When replacing carbon brush, be sure if brush holder is installed on motor housing properly. And then install handle cover onto motor housing. (see Fig. .12.)

< Properly installed carbon brush >



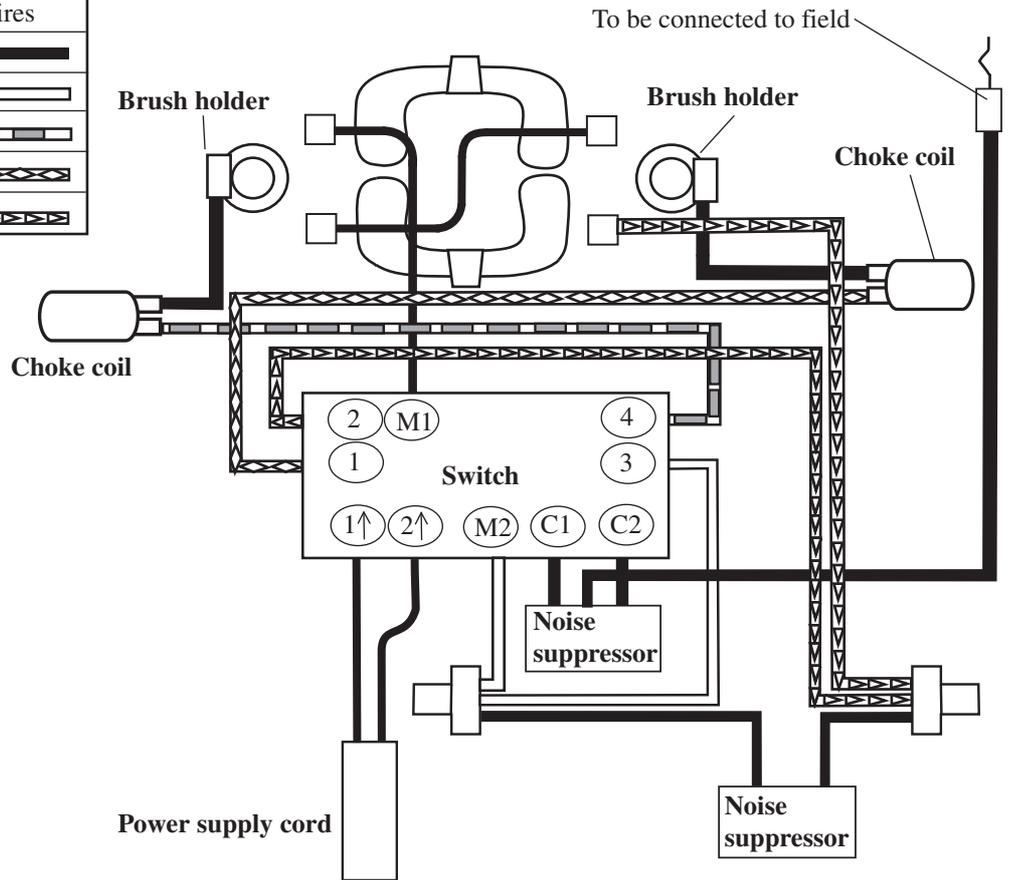
< Incompletely installed carbon brush >

Correct with your finger to install properly.

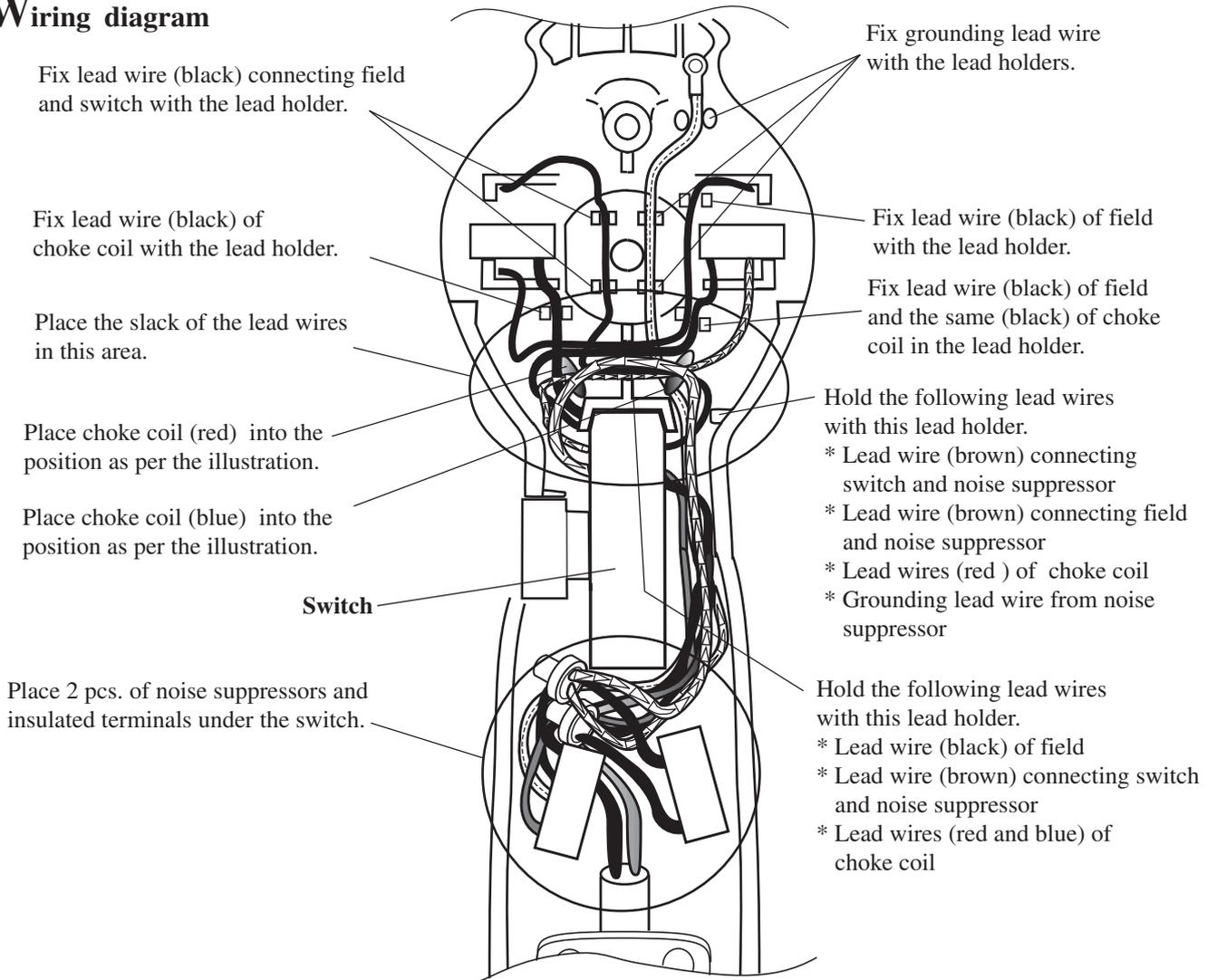


▶ **Circuit diagram (for the market where noise suppressor is required.)**

| Color index of lead wires | |
|---------------------------|--|
| Black | |
| White | |
| Red | |
| Blue | |
| Brown | |

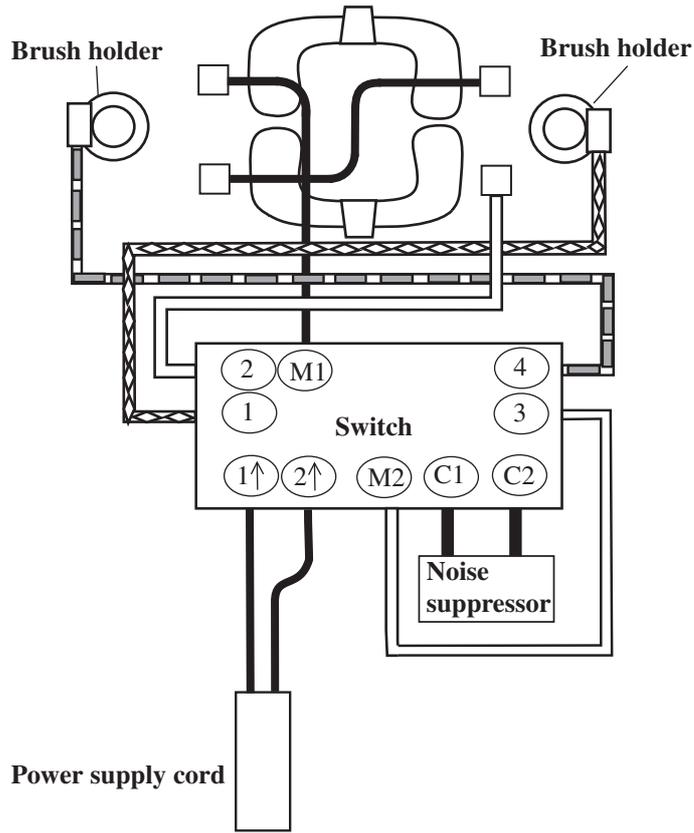


▶ **Wiring diagram**



▶ **Circuit diagram**

| Color index of lead wires | |
|---------------------------|---|
| Black |  |
| White |  |
| Red |  |
| Blue |  |



▶ **Wiring diagram**

