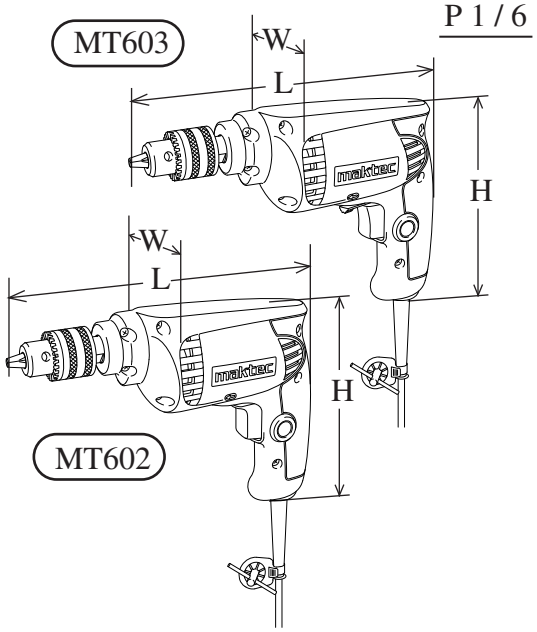
TECHNICAL INFORMATION

maktec | makita PRODUCT

Models No. ► MT602, MT603

Description ► Drill 10mm (3/8")



CONCEPTION AND MAIN APPLICATIONS

The above **maktec** drills have been designed as a medium class model between Mod.MT600 and MT650.

* MT602 : 1. Compact design and easy to handle
  2. Less expensive, but service life is long as the existing models.
  3. Easy to repair construction
* MT603 : Equipped with variable speed control and reverse switch in addition to the above features.

Dimensions : mm (")		
Model No.	MT602	MT603
Length (L)	228 (9)	
Width (W)	64 (2-1/2)	
Height (H)	175 (6-7/8)	

► Specification

Voltage (V)	Current (A)	Cycle (Hz)	Continuous Rating (W)		Max. Output(W)
			Input	Output	
110	4.3	50 / 60	450	230	350
120	4.0	50 / 60	450	230	350
220	2.2	50 / 60	450	230	350
230	2.1	50 / 60	450	230	350
240	2.0	50 / 60	450	230	350

Model No.		MT602	MT603
No load speed : (min -1= rpm)		3,000	0 - 3,000
Keyless chuck		No	
Chuck ability : mm (")		1.5 - 10 (1/16 - 3/8)	
Drilling capacity : mm (")	in Steel	10 (3/8)	
	in Wood	25 (1)	
Reverse switch		No	Yes
Variable switch		No	Yes
Protection against electric shock		Double insulation	
Cord length : m (ft)		2.0 (6.6)	
Net weight :Kg (lbs)		1.2 (2.6)	

► Standard equipment

* Chuck key S10 ..... 1 pc.
* Key holder 10 ..... 1 pc.

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

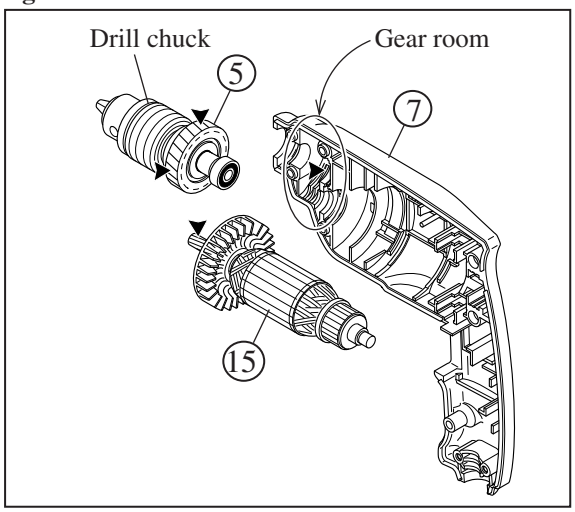
Repair

< 1 > Lubrication

Apply Makita grease N. No.1 to the following portions designated by black triangle to protect parts and product from unusual abrasion. See **Fig. 1**.

Item No.	Descriptions	The portion to lubricate	Amount of lubricant
⑤	Helical gear	Teeth portion	Approx. 3.0 g in total
⑦	Housing R or L	Gear room	
⑮	Armature	Teeth portion	

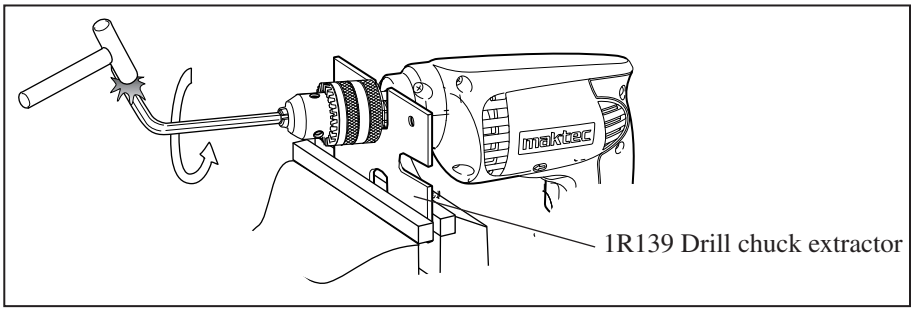
Fig. 1



< 2 > Removing drill chuck

Firmly hold No.1R139 "Drill chuck extractor" with vise. And lock spindle with the drill chuck extractor.
Hold hex wrench with drill chuck firmly.
Strike the hex wrench with hammer so that the drill chuck turns anti-clockwise. See **Fig. 2**.
So drill chuck can be removed from spindle.

Fig. 2

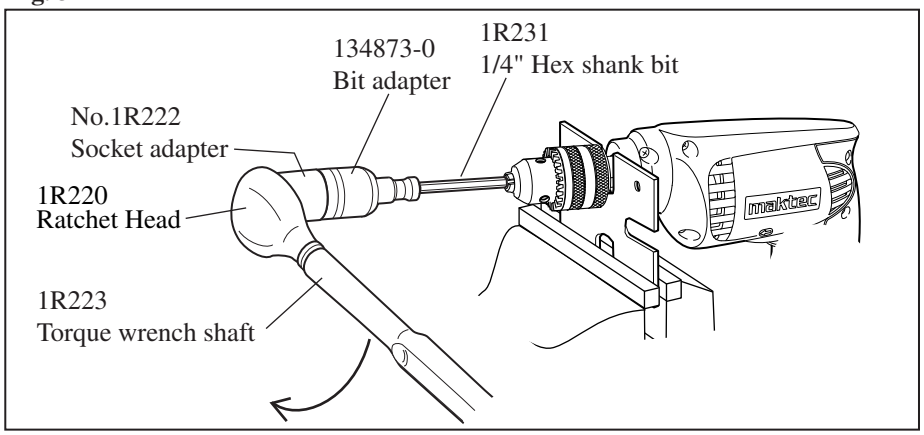


< 3 > Mounting drill chuck

1. Set the repairing tools, No.1R222, 1R220, 1R223, 134873-0, 1R231 as illustrated in **Fig. 3**.
2. Hold No.1R231 with drill chuck firmly.
3. Turn 1R223 clockwise. Then, drill chuck can be mounted to spindle.

The fastening torque for drill chuck is 25.52 - 29.42N.m (250 - 300Kgfcm).

Fig. 3

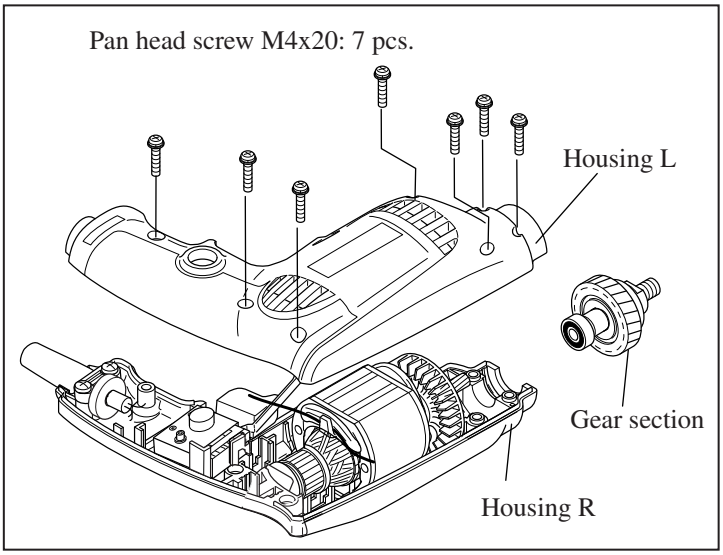


Repair

< 4 > Disassembling gear section

(1) Separate housing L after removing 7 pcs. of pan head screw M4x20. See **Fig. 4**.
(2) Remove gear section. See **Fig. 4**.

Fig. 4



(3) Remove ball bearing 608ZZ from spindle with 1R269 "Bearing extractor". See **Fig. 5**.
(4) Put the gear section on 1R273 "Ring Spring Setting Tool B", and press the spindle with arbor press. Then, helical gear 35 can be separated from the spindle. See **Fig. 6**.

Fig. 5

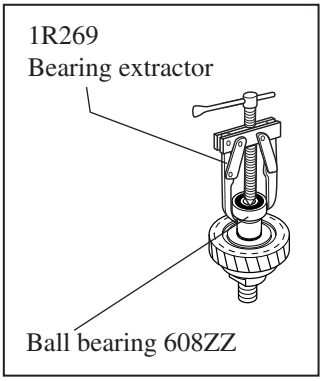
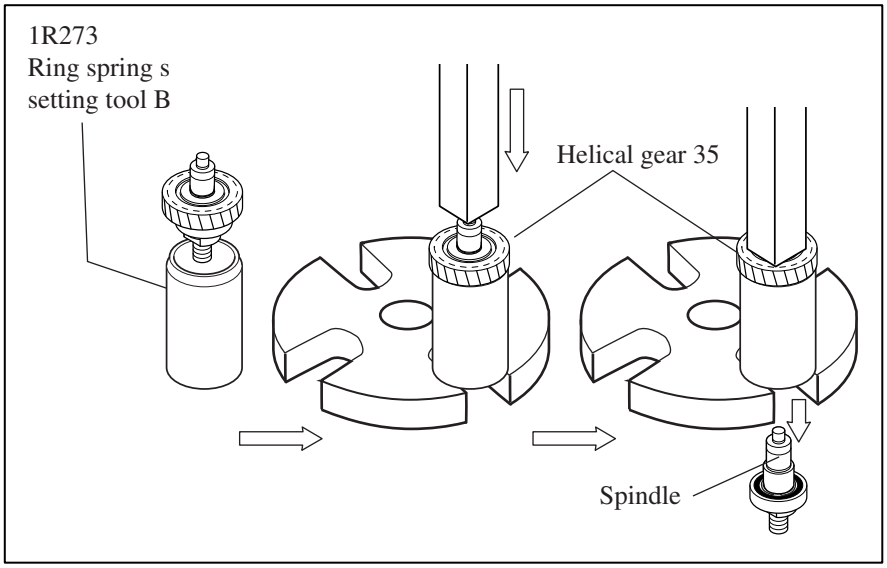


Fig. 6



(5) Remove ring spring 13. See **Fig. 7**.
(6) Put the gear section on 1R031 "Bearing Setting Pipe", and press the spindle with arbor press. Then, ball bearing 6902ZZ can be separated from spindle. See **Fig. 8**.

Fig. 7

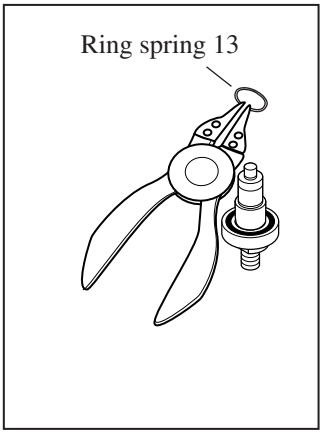
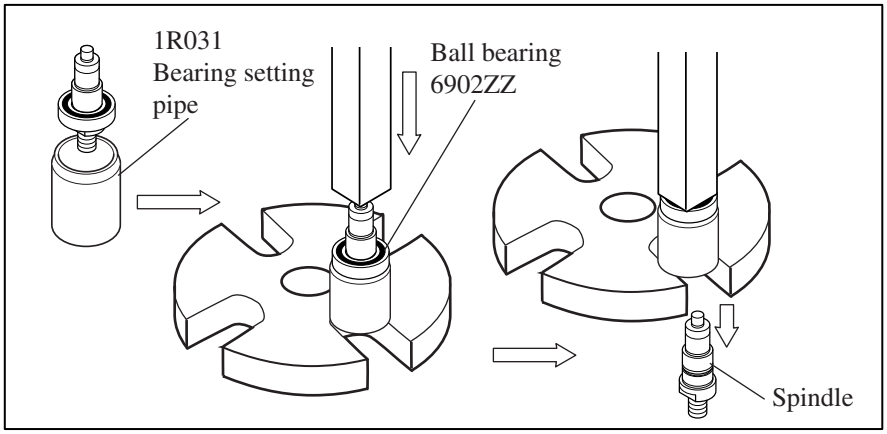


Fig. 8



Repair

< 5 > Assembling gear section

(1) Mount ball bearing 6902ZZ to spindle. See **Fig. 9**.
(2) Mount ring spring 13 for securing ball bearing 6902ZZ. See **Fig. 10**.
(3) Mount helical gear 35 by pressing the spindle with arbor press. See **Fig. 11**.
(4) Mount ball bearing 608ZZ by pressing the spindle with arbor press. See **Fig. 12**.
The gear section has been completed in this step.
(5) Mount the gear section to the housing, while engaging helical gear 35 with armature gear.
And then secure housing L with 7 pcs. of pan head screw M4x20. See **Fig. 13**.

Fig. 9

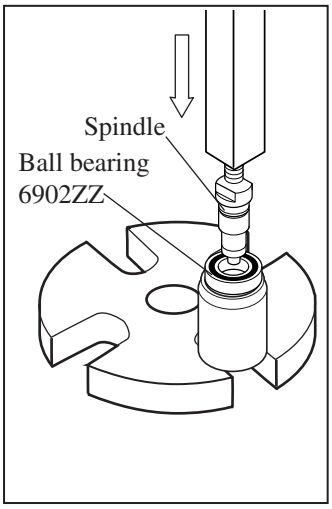


Fig. 10

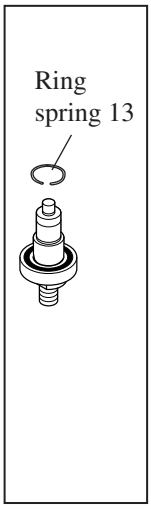


Fig. 11

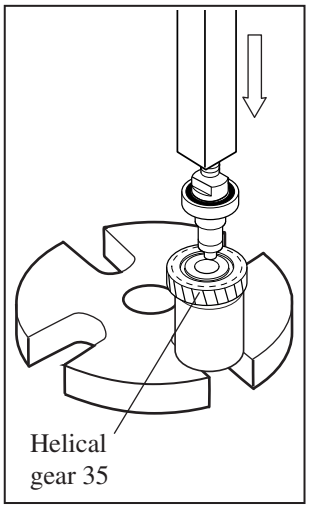


Fig. 12

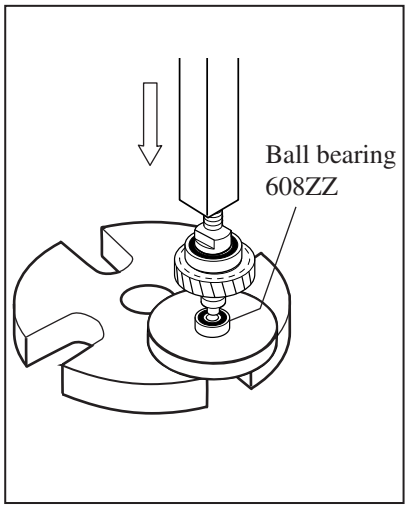
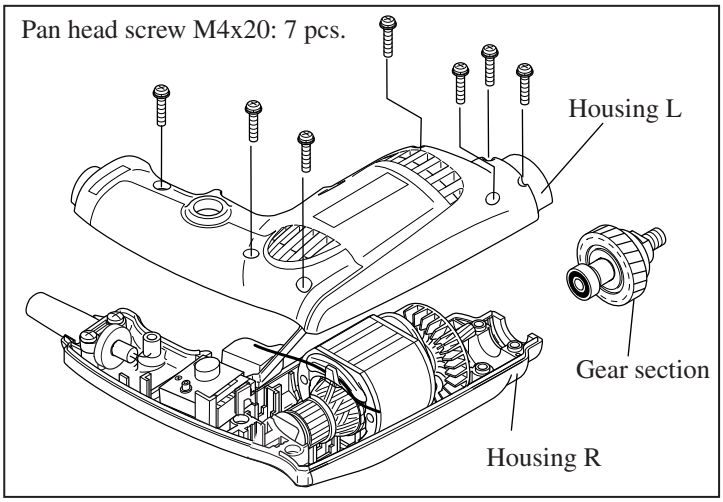


Fig. 13



< 6 > Note on assembling armature

Before mounting armature, mount leaf spring to the housing. See **Fig. 14R**.

Fig. 14R

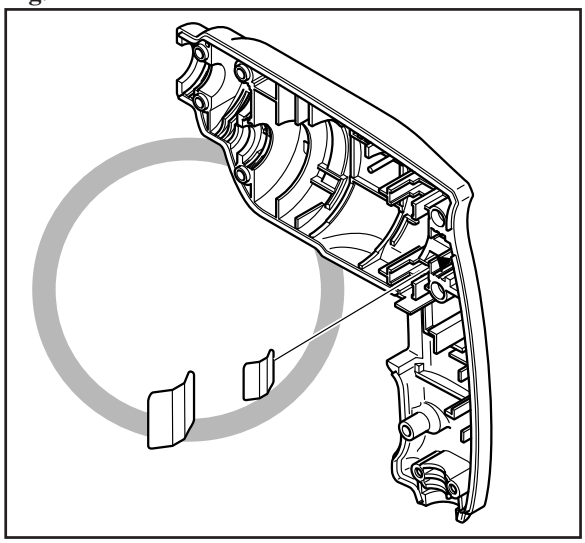
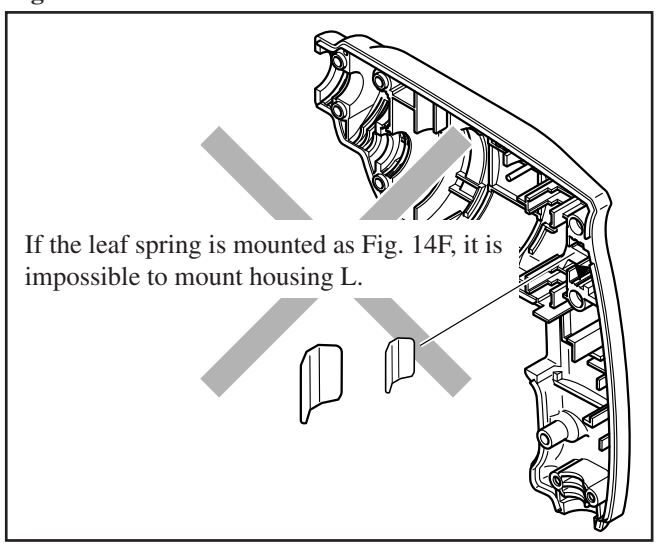
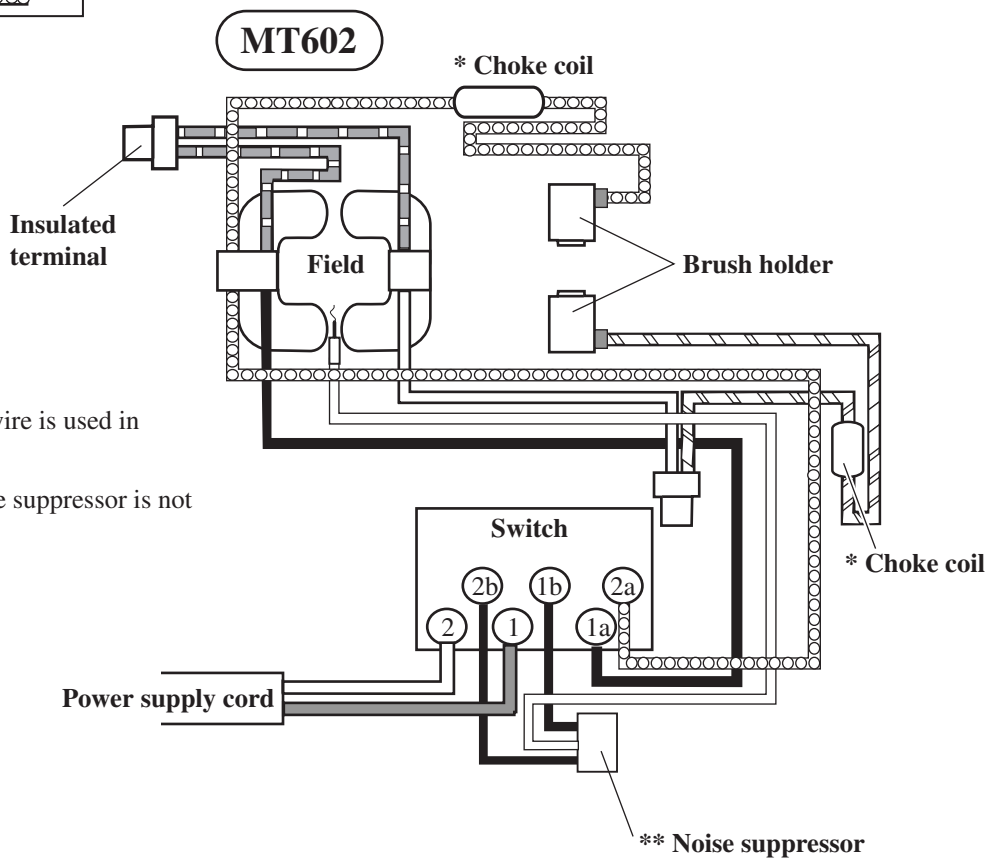


Fig. 14F



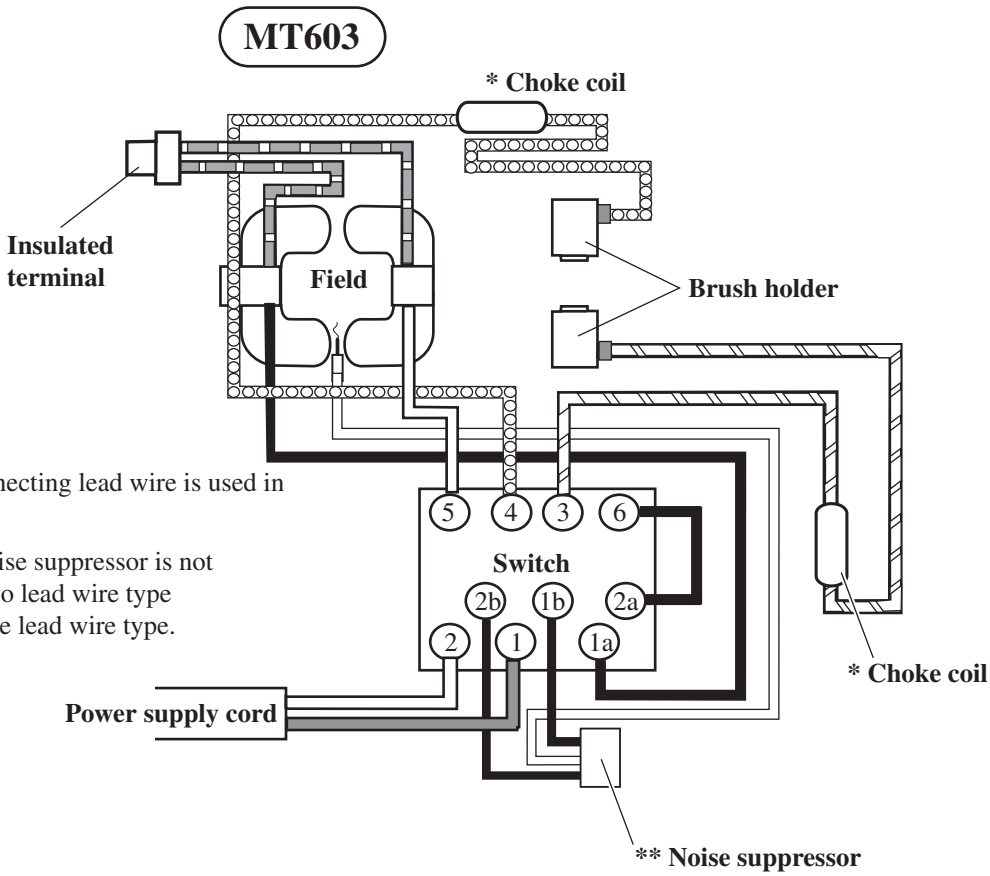
► Circuit diagram

Color index of lead wires' sheath	
Black	
White	
Red	
Orange	
Purple	



* For some country, lead wire is used in stead of choke coil.

** For some country, noise suppressor is not used.

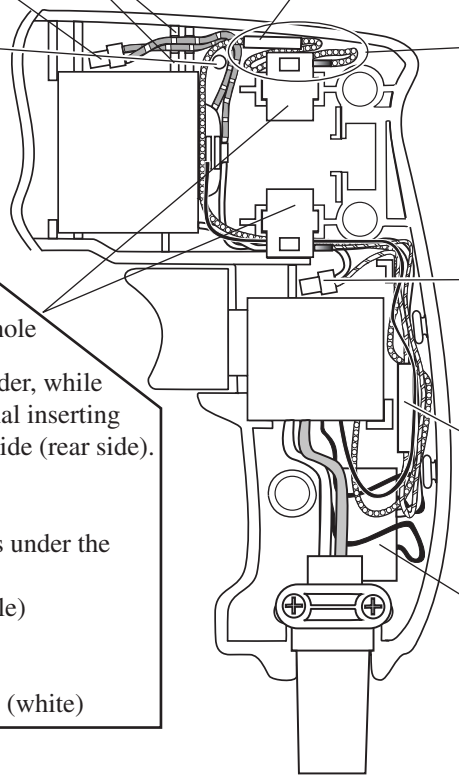


* For some countries, connecting lead wire is used in stead of choke coil.

** For some countries, noise suppressor is not used, or the same of two lead wire type is used, in stead of three lead wire type.

Wiring diagram

MT602

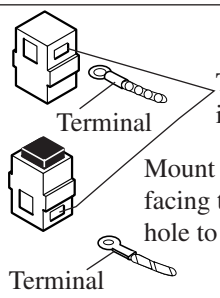


Lead holder
Hold the field lead wire (red) with lead holder

Insulated terminal
Put insulated terminal in the space illustrated.

Rib A
Pass the field lead wire (red) by rib A.

Brush holder



Pass the following lead wires under the brush holders.
* Choke coil lead wire (purple)
* Field lead wire (black)
* Field lead wire (white)
* Noise suppressor lead wire (white)

Choke coil with purple lead wire
Put choke coil in the space illustrated, if it is installed.

In case that the connecting lead wire (orange) in stead of choke coil.

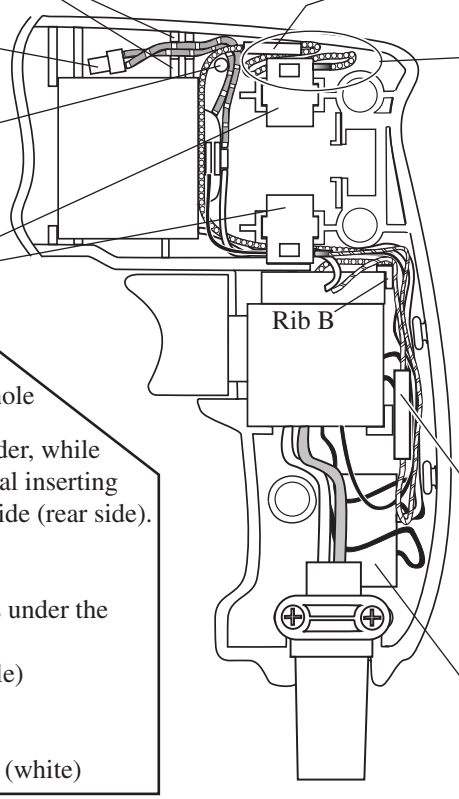
Use the connecting lead wire (orange) which has been cut in the proper length, so that it does not slack in this space.

Insulated terminal
Put insulated terminal in the space illustrated.

Choke coil with orange lead wire
Put choke coil in the space illustrated, if it is used.

Noise suppressor
Put noise suppressor in the space illustrated, if it is used.

MT603

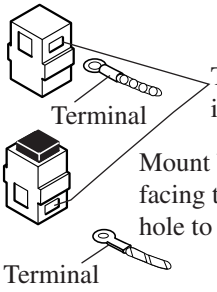


Lead holder
Hold the field lead wire (red) with lead holder

Insulated terminal
Put insulated terminal in the space illustrated.

Rib A
Pass the field lead wire (red) by rib A.

Brush holder



Pass the following lead wires under the brush holders.
* Choke coil lead wire (purple)
* Field lead wire (black)
* Field lead wire (white)
* Noise suppressor lead wire (white)

Choke coil with purple lead wire
Put choke coil in the space illustrated, if it is installed.

In case that the connecting lead wire (orange) in stead of choke coil.

Use the connecting lead wire (orange) which has been cut in the proper length, so that it does not slack in this space.

Choke coil with orange lead wire
Put choke coil in the space illustrated, if it is used.

Noise suppressor
Put noise suppressor in the space illustrated, if it is used.