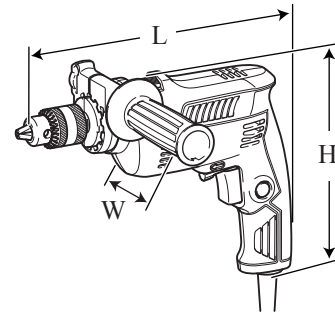


# T ECHNICAL INFORMATION

**Model No.** ▶ MT80A, MT80B

**Description** ▶ Hammer Drills 10mm (3/8"), 16mm (5/8")



## CONCEPT AND MAIN APPLICATIONS

Models MT80A/ MT80B have been developed as maktec brand hammer drills 10mm (3/8")/ 16mm (5/8"), mainly for the emerging countries.

New maktec design is employed to eliminate white printing and polygonal line from maktec logo/ elastomer from handle for the cost effectiveness.

Dimensions: mm ( " )		
	MT80A	MT80B
Length (L)	254 (10)	262 (10-3/8)
Width (W)	70 (2-3/4)	
Height (H)	196 (7-3/4)	

### ► Specification

Voltage (V)	Current (A)	Cycle (Hz)	Continuous Rating (W)		Max. Output (W)
			Input	Output	
220	2.4	50/60	500	250	350
230	2.3	50/60	500	250	350
240	2.2	50/60	500	250	350

Specification	Model No.	MT80A	MT80B
No load speed: min. <sup>-1</sup> =rpm		0 - 2,900	0 - 2,900
Impacts per min.: min. <sup>-1</sup> = ipm		0 - 43,500	0 - 43,500
Chuck type		Keyed	Keyed
Chuck capacity: mm (")		1.5 - 10 (1/16 - 3/8)	1.5 - 13 (1/16 - 1/2)
Capacities: mm (")	Concrete	10 (3/8)	16 (5/8)
	Steel	10 (3/8)	13 (1/2)
	Wood	20 (13/16)	20 (13/16)
Variable speed control by trigger		Yes	Yes
Reverse switch		Yes	Yes
Protection against electric shock		Double insulation	Double insulation
Power supply cord: m (ft)		2.0 (6.6)	2.0 (6.6)
Weight according to EPTA-Procedure 01/2003*: kg (lbs)		1.6 (3.4)	1.7 (3.7)

\* with Side grip

### ► Standard equipment

- Chuck key S10 (MT80A) ..... 1
- Chuck key S13 (MT80B) ..... 1
- Key holder 10 ..... 1 (for some countries only)
- Side grip ..... 1
- Plastic carrying case (MT80B) ..... 1 (for "K model" only)

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

### ► Optional accessories

- Depth gauge

## ► Repair

**CAUTION:** Repair the machine in accordance with “Instruction manual” or “Safety instructions”.

### [1] NECESSARY REPAIRING TOOLS

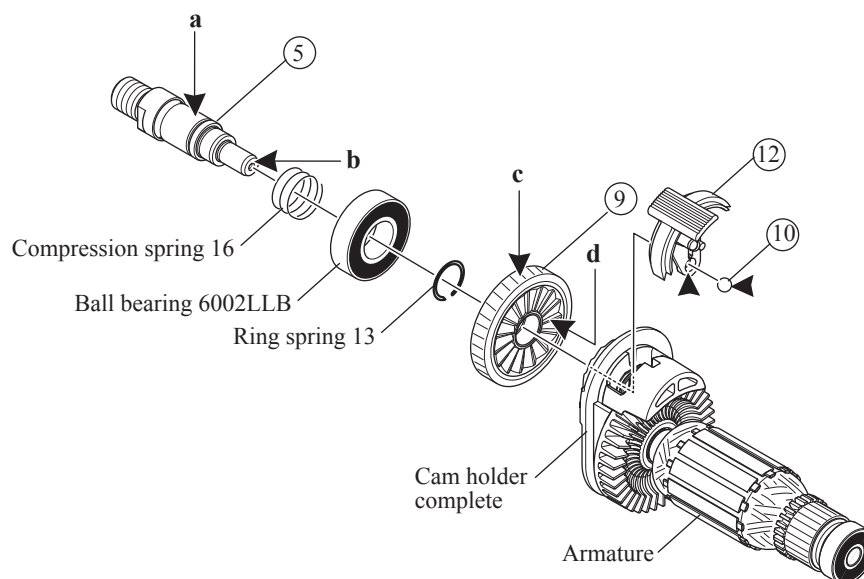
Code No.	Description	Use for	
1R004	Retaining ring pliers ST-2	removing / mounting Ring spring 13	
1R029	Bearing setting pipe 23-15.2	assembling Helical gear 39 to Spindle	
1R031	Bearing setting pipe 28-20.2	assembling Cam complete to Cam holder	
1R139	Drill chuck extractor	fixing Spindle when removing / mounting Drill chuck	
1R165	Ring spring setting tool B	holding Helical gear 39 when separating Spindle from Helical gear 39	
1R223	Torque wrench shaft 20-90N·m	removing / assembling Drill chucks	for both 10 mm and 13 mm Drill chucks
1R224	Ratchet head 12.7 (for 1R223)		for 10 mm Drill chuck
1R231	1/4” Hex. shank bit for M8		for 13 mm Drill chuck
1R298	Hex bar 10 with square socket		
1R258	V block	holding Cam holder when disassembling/ assembling Cam complete	
1R278	Round bar for arbor 4-50	disassembling Cam complete from Cam holder	

### [2] LUBRICATION

Apply **Makita grease N. No.2** to the following portions designated with the black triangle to protect parts and product from unusual abrasion.

Item No.	Description	Portion to lubricate	Amount
⑤	Spindle	a: Drum portion for smooth hammering in the inner ring of Ball bearing 6002LLB	a little
		b: Spindle end where ⑩ Steel ball 5 contacts	a little
⑨	Helical gear 39	c: Teeth portion for smooth engaging with Armature’s gear	3.0g
		d: Cam portion for smooth engaging with Cam on Cam holder complete	1.7g
⑩	Steel ball 5	Whole portion	a little
⑫	Change lever	accepting hole for ⑩ Steel ball 5	a little

**Fig. 1**



## ► Repair

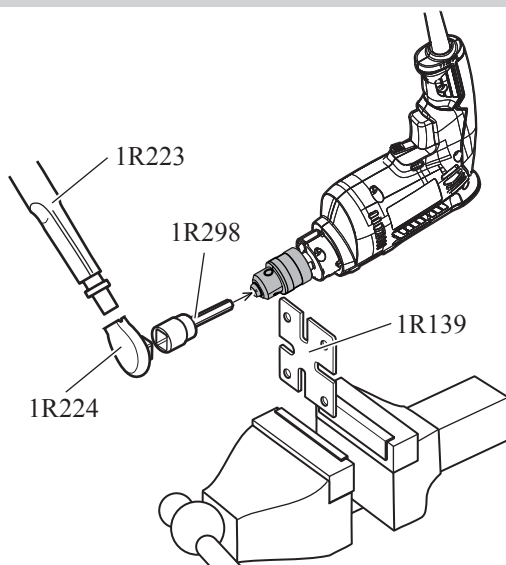
### [3] DISASSEMBLY/ASSEMBLY [3] -1A. 13mm Drill Chuck of model MT80B

#### DISASSEMBLING

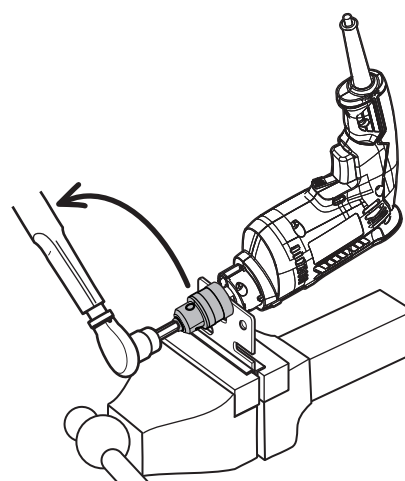
Remove 13mm Drill chuck as drawn in **Fig. 2A**.

**Fig. 2A**

1. Fix 1R139 firmly with vise. Then attach 1R298 to 13mm Drill chuck, and then fix the machine to 1R139 by fitting the flat portion of Spindle to the groove of 1R139.
2. Attach 1R224 to 1R223 and set them to 1R298.



3. Turn 1R223 counter clockwise to remove 13mm Drill chuck from the machine.

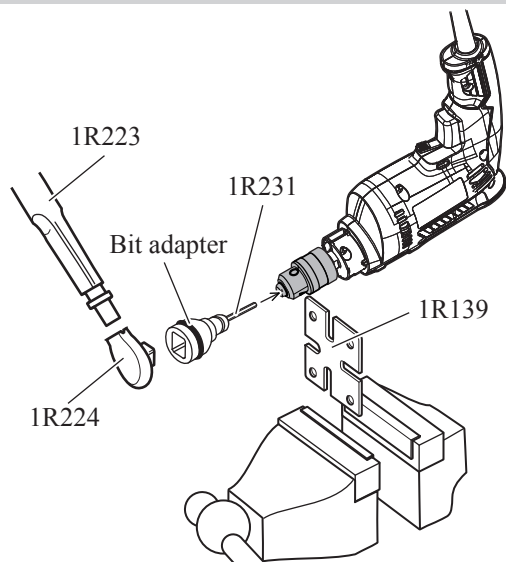


### [3] -1B. 10mm Drill Chuck of model MT80A

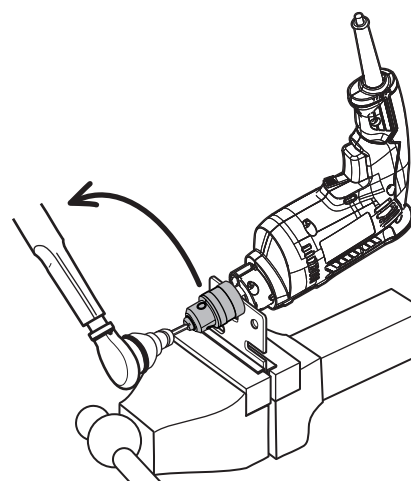
Remove 10mm Drill chuck as drawn in **Fig. 2B**.

**Fig. 2B**

1. Fix 1R139 firmly with vise. Then attach 1R231 and Bit adapter to 10mm Drill chuck, and then fix the machine to 1R139 by fitting the flat portion of Spindle to the groove of 1R139.
2. Attach 1R224 to 1R223 and set them Bit adapter.



3. Turn 1R223 counter clockwise to remove 10mm Drill chuck from the machine.



## ► Repair

### [3] DISASSEMBLY/ASSEMBLY

#### [3] -1A. 13mm Drill Chuck of model MT80B (cont.)

#### -1B. 10mm Drill Chuck of model MT80A (cont.)

#### ASSEMBLING

Assemble by reversing the disassembly procedure. Refer to **Fig. 2A** or **Fig. 2B**.

**Note:** Set the fastening torque of 1R223 to **24.5N·m ~ 29.4 N·m (250 Kg f·cm ~ 300 Kg f·cm)** and turn 1R223 clockwise.

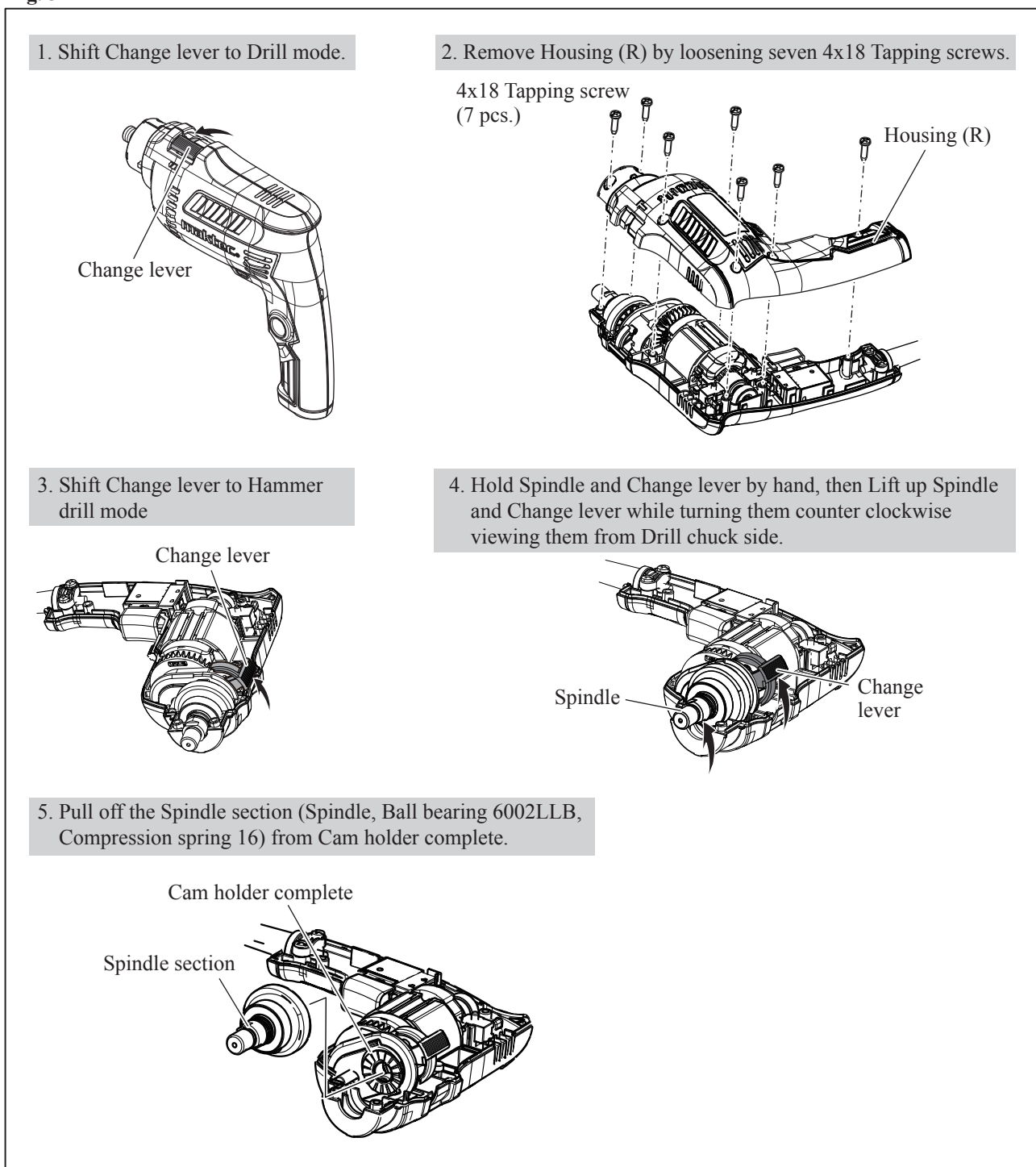
### [3] -2. Helical Gear 39, Ball Bearing 6002LLB

#### DISASSEMBLING

(1) Remove Drill chuck as drawn in **Fig. 2A** or **Fig. 2B**.

(2) Remove Spindle section from the machine as illustrated in **Fig. 3**.

**Fig. 3**



## ▶ Repair

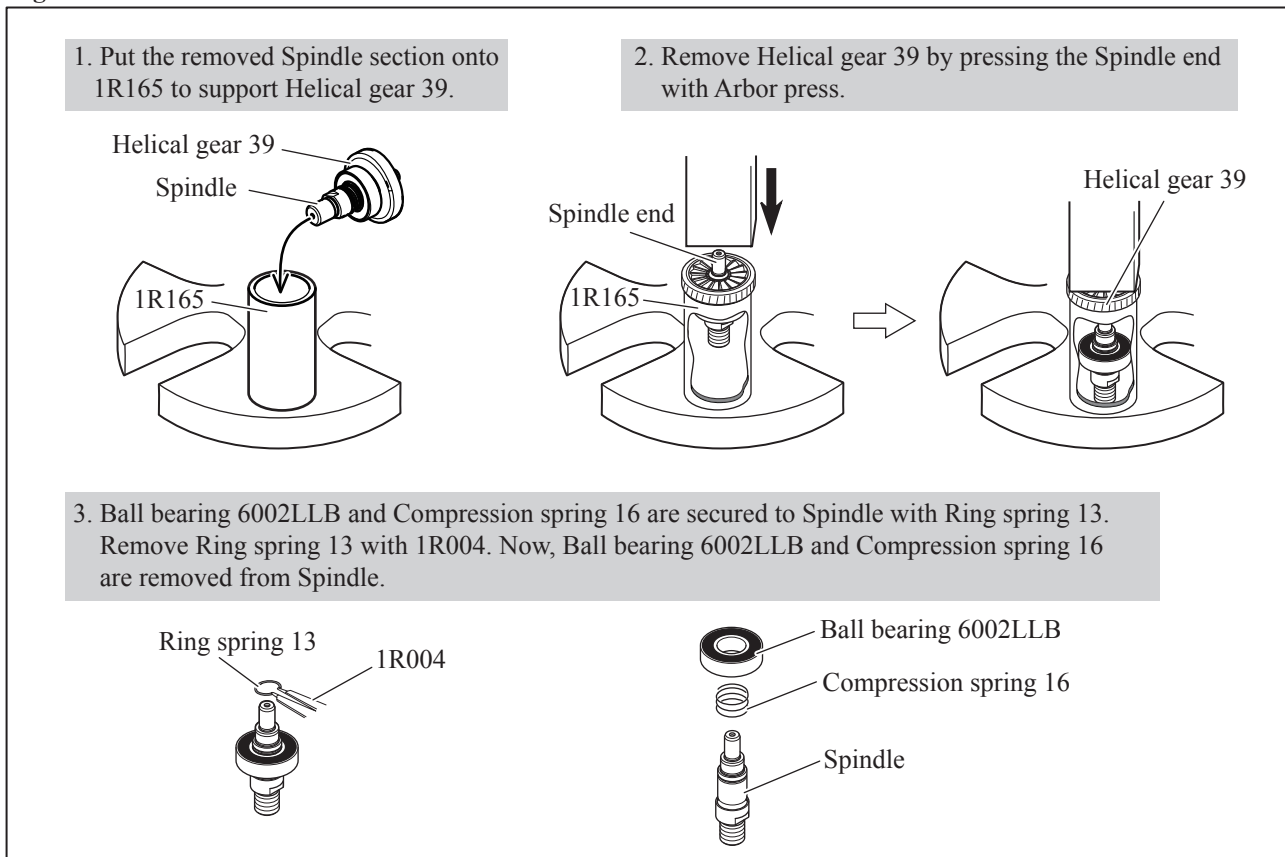
### [3] DISASSEMBLY/ASSEMBLY

#### [3] -2. Helical Gear 39, Ball Bearing 6002LLB (cont.)

##### DISASSEMBLING

(3) Disassemble the removed Spindle section as drawn in Fig. 4.

Fig. 4



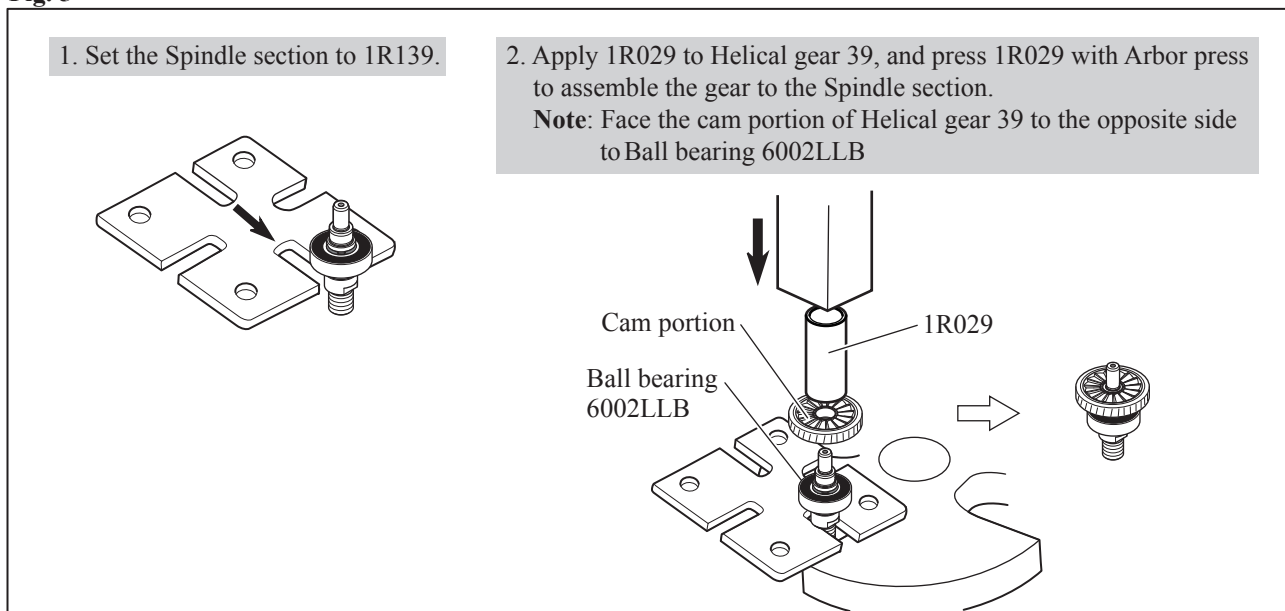
##### ASSEMBLING

(1) Assemble Compression spring 16 and Ball bearing 6002LLB to Spindle. And secure them with Ring spring 13.  
(Refer to the **lower two** illustrations in Fig. 4.)

**Note:** Apply a little amount of **Makita grease N. No.2** to Drum portion of Spindle and in the inner ring the bearing.  
(Refer to [2] LUBRICATION.)

(2) Assemble Helical gear 39 to Spindle as drawn in Fig. 5.

Fig. 5



## ► Repair

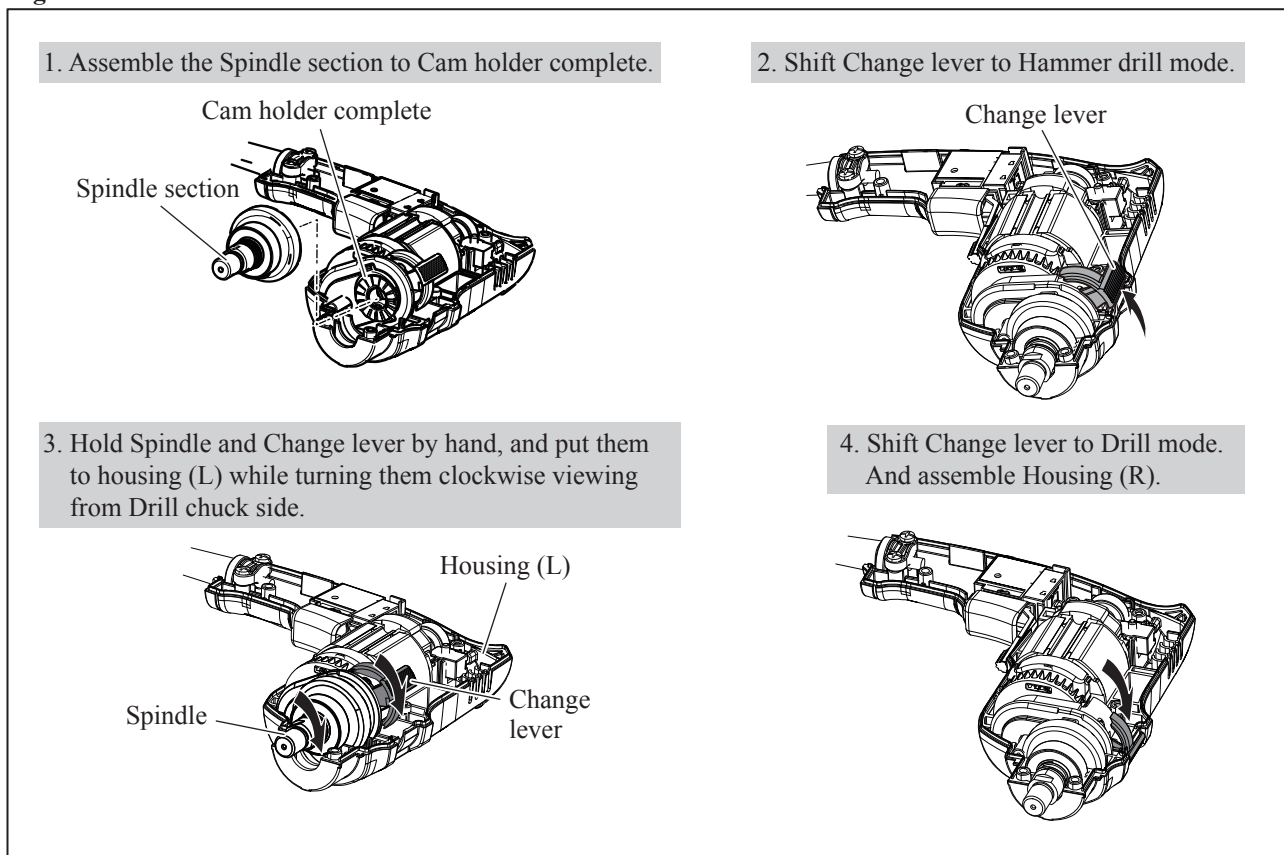
### [3] DISASSEMBLY/ASSEMBLY

#### [3] -2. Helical Gear 39, Ball Bearing 6002LLB (cont.)

##### ASSEMBLING

(3) Mount the assembled Spindle section to the machine as drawn in **Fig. 6**.

**Fig. 6**

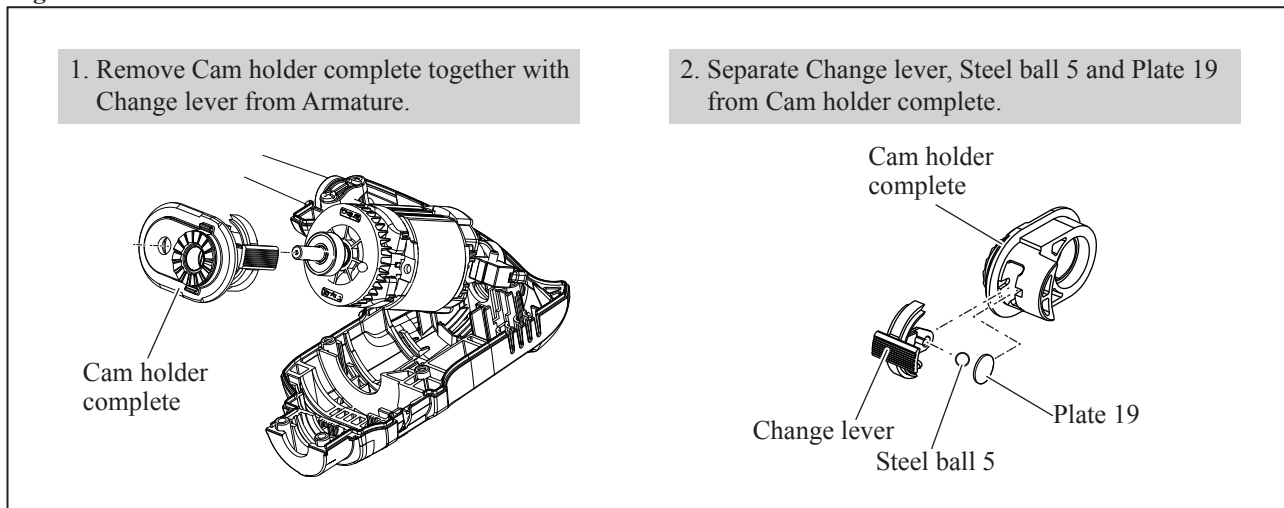


### [3] -3. Cam Complete, Change Lever

##### DISASSEMBLING

- (1) Shift Change lever to Drill mode, and separate Housing (R) from Housing (L) by unscrewing seven 4x18 Tapping screws. (See the **upper two** illustrations in **Fig. 3**.)
- (2) Shift Change lever back to Hammer drill mode, and remove the Spindle section from Cam holder complete. (See the **lower** illustrations in **Fig. 3**.)
- (3) Disassemble Cam holder complete as drawn in **Fig. 7**.

**Fig. 7**



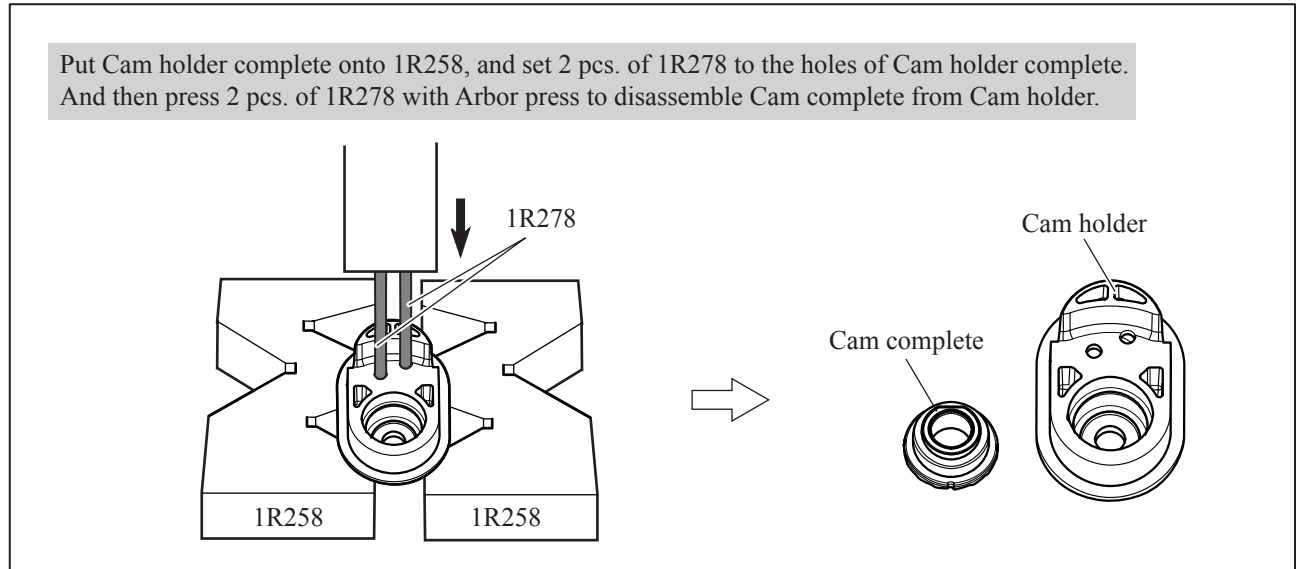
► **Repair**

**[3] DISASSEMBLY/ASSEMBLY**  
**[3] -3. Cam Complete, Change Lever (cont.)**

DISASSEMBLING

(4) Disassemble Cam complete from Cam holder as drawn in **Fig. 8**.

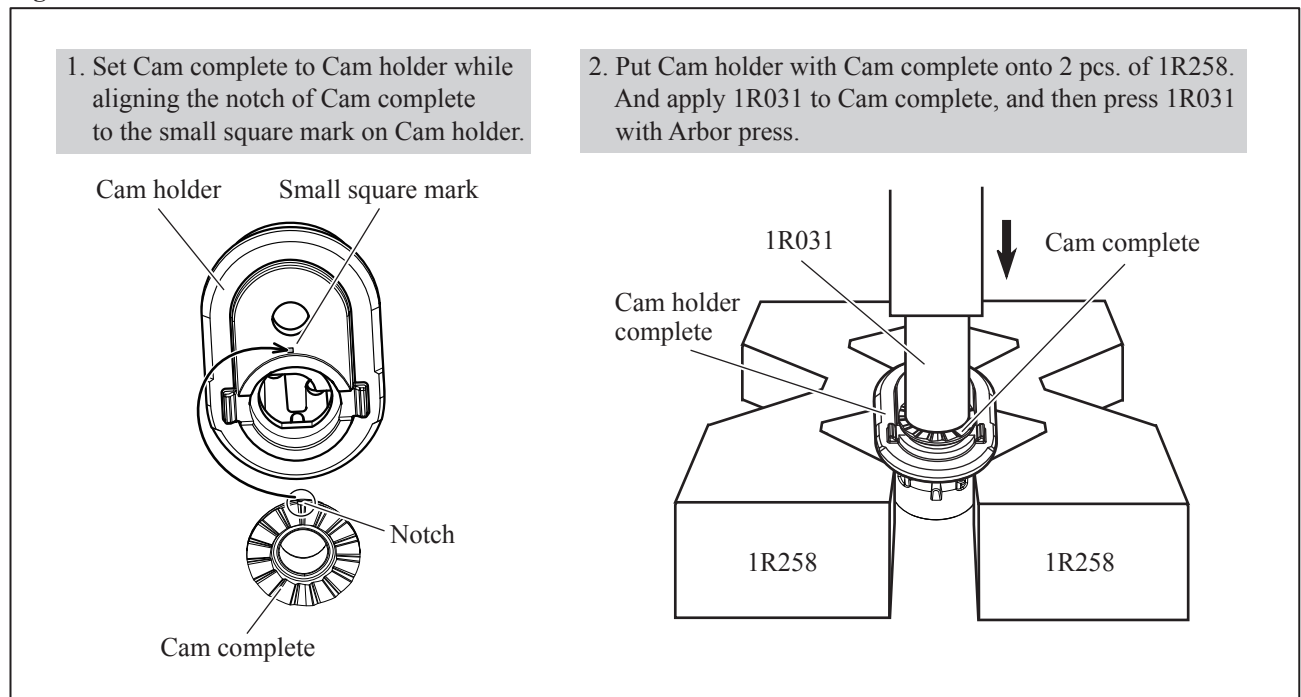
**Fig. 8**



ASSEMBLING

(1) Cam complete can be assembled to Cam holder complete as drawn in **Fig. 9**.

**Fig. 9**



## ► Repair

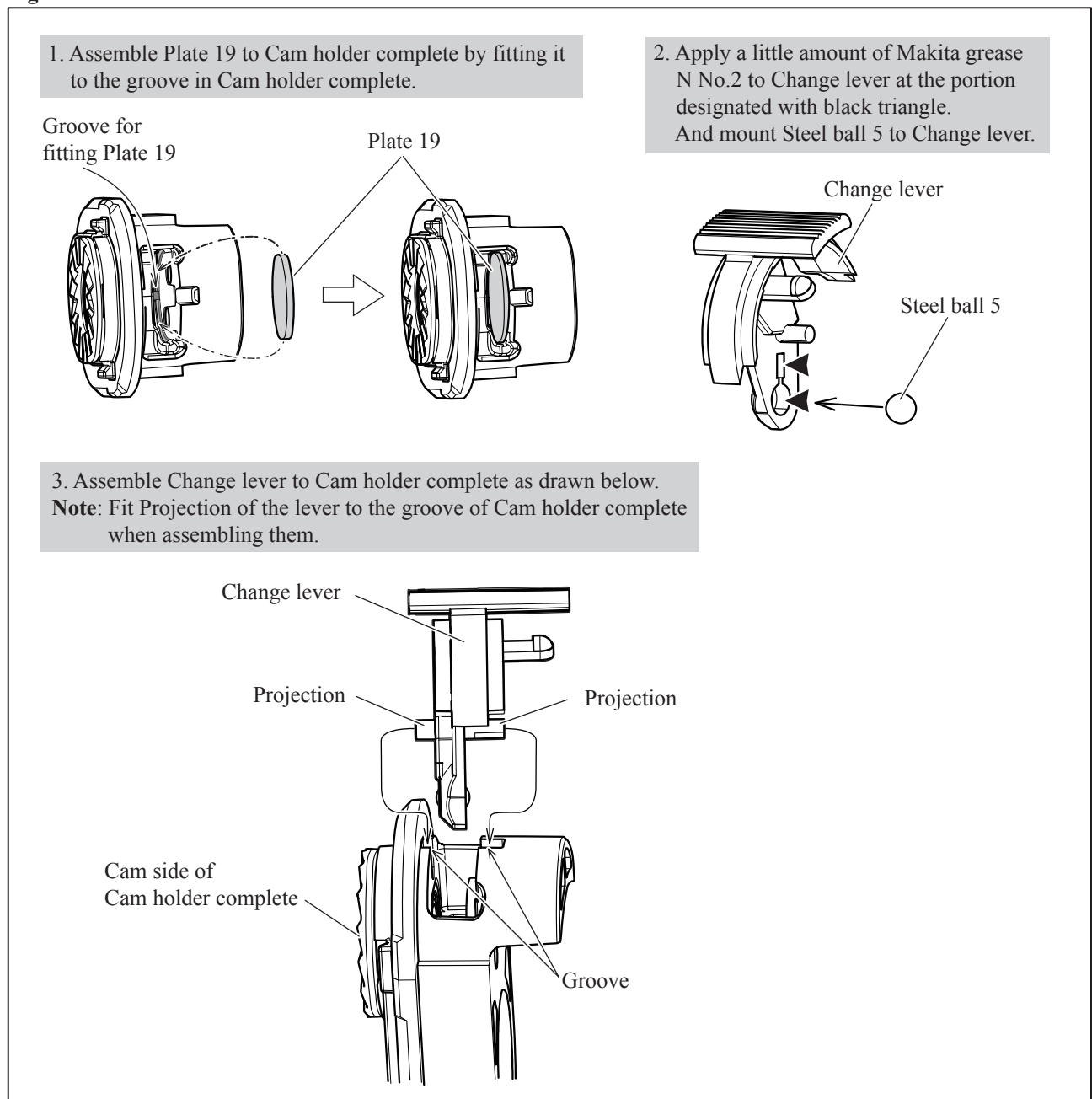
### [3] DISASSEMBLY/ASSEMBLY

#### [3] -3. Cam Complete, Change Lever (cont.)

##### ASSEMBLING

(2) Assemble Change lever to Cam holder complete as drawn in **Fig. 10**.

**Fig. 10**

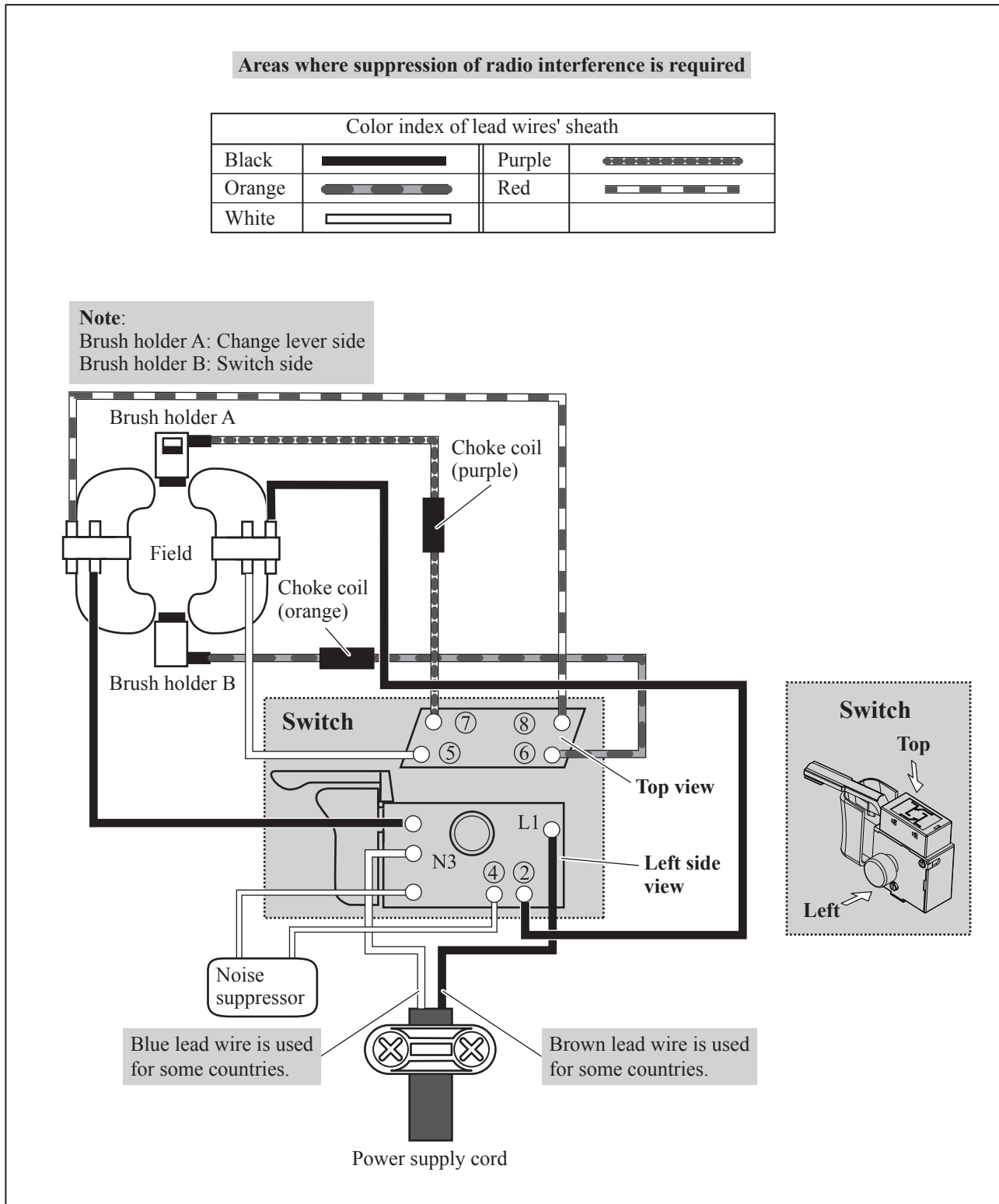


(3) Assemble Cam holder complete to Armature by reversing the Disassembly procedure.  
 (Refer to the **left** illustration in **Fig. 7**.)



► **Circuit diagram**

Fig. D-1



► **Wiring diagram**

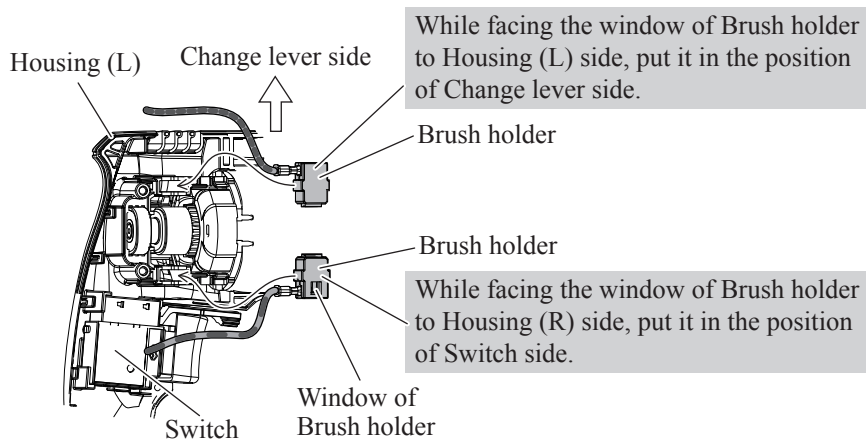
Fig. D-2

**Areas where suppression of radio interference is required**

**Wiring in Housing set (L)**

**Setting of Brush holders**

Put Brush holders as drawn below so that the Lead wires can be connected to them **approaching from rear side**.



Put Choke coil (purple) in the position shown below.

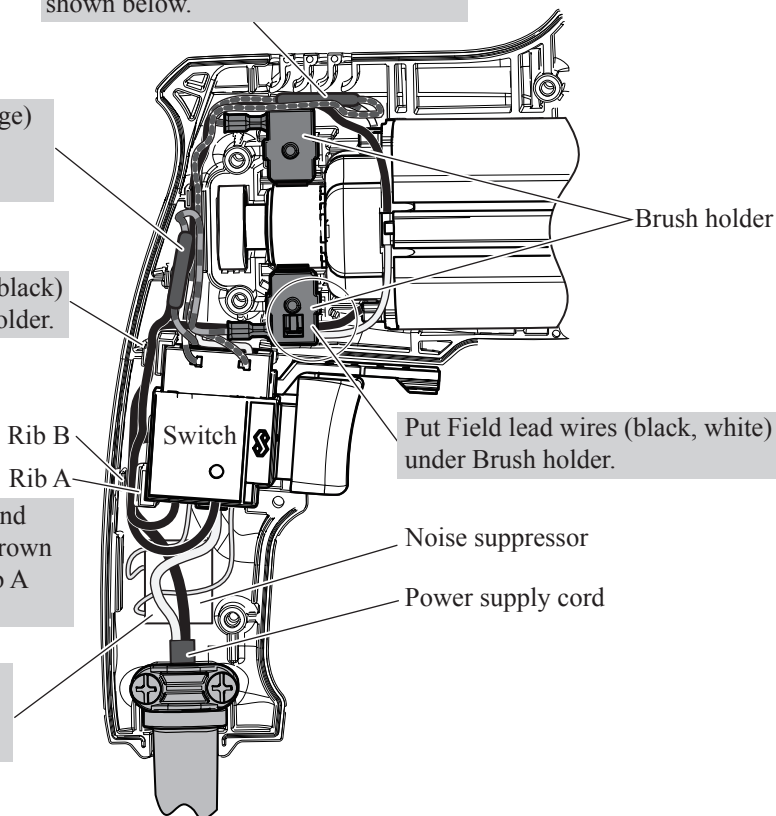
Put Choke coil (orange) in the position shown in the right.

Fix Field lead wires (black) with this Lead wire holder.

Rib B  
Rib A

Put Field lead wires and Power supply cord (brown or black) between Rib A and Rib B.






Put Noise suppressor in the position shown in the right.



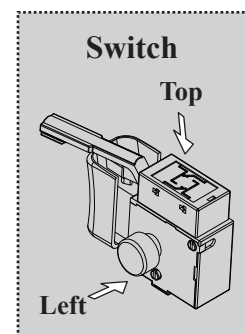
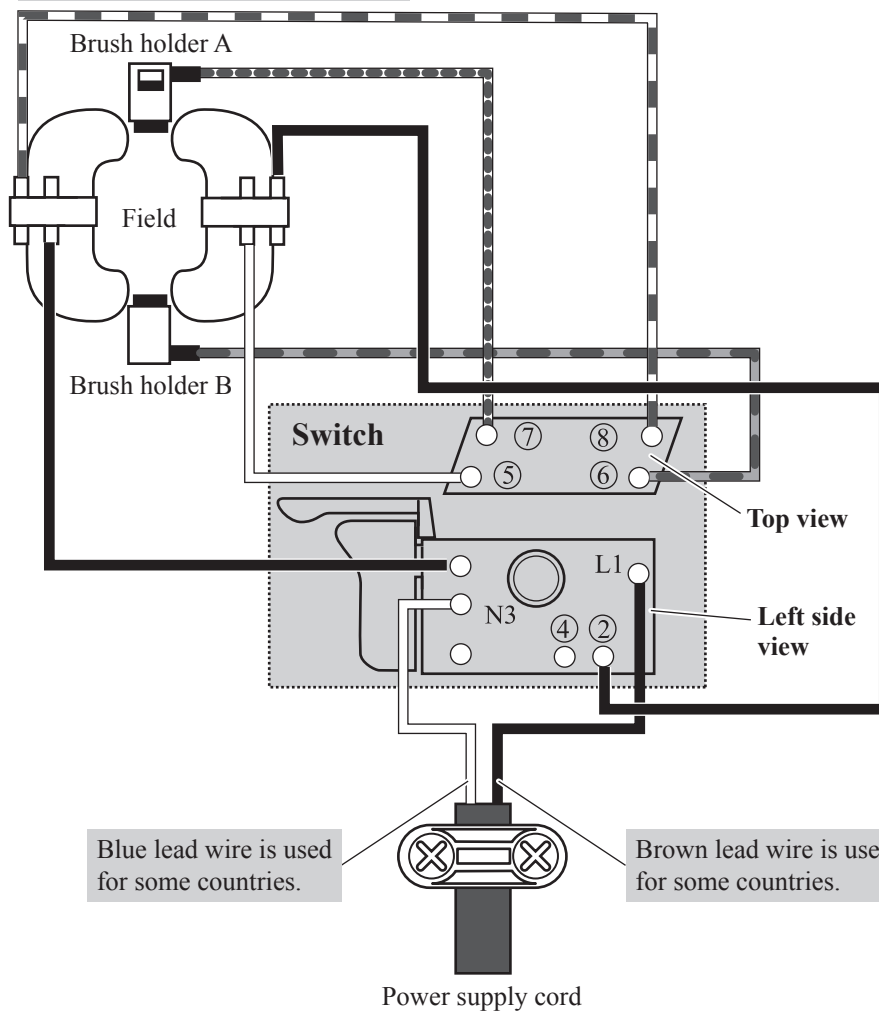
► **Circuit diagram**

Fig. D-1A

Areas where suppression of radio interference is not required

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

**Note:**  
 Brush holder A: Change lever side  
 Brush holder B: Switch side



► **Wiring diagram**

Fig. D-2A

**Areas where suppression of radio interference is not required**

**Wiring in Housing set (L)**

**Setting of Brush holders**

Put Brush holders as drawn below so that the Lead wires can be connected to them **approaching from rear side**.

