

TECHNICAL INFORMATION

Makita

PRODUCT

P 1/9

Models No. ▶ TD021D

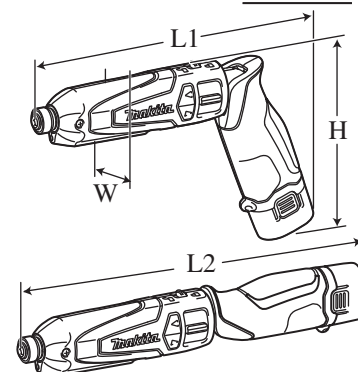
Description ▶ 7.2V Cordless Impact Driver

CONCEPT AND MAIN APPLICATIONS

Model TD021D has been developed from TD020D by adding variable speed control and electric brake for more controlled operation. Also features the same benefits as Model TD020D:

- Compact and lightweight tool design for easy handling and maneuverability
- Uses 7.2V Li-ion battery of stick type as a power unit.
- Can be easily converted from straight- to pistol-type impact driver.

This product is available in the following variations.



Model No.	Housing color	Battery Model/ Quantity	Charger	Carrying case	Bit assortment	Holster	Dimensions: mm (")	
							Length 1 (L1)	227 (8-15/16)
TD021DZ	Makita-blue	No	No	No	3 Driver bits	No	Length 2 (L2)	282 (11-1/8)
TD021DSE		BL7010/ 2	DC07SA	Tool bag (of cloth)	3 Driver bits, 1 Drill bit*1	Yes	Width (W)	42 (1-5/8)
TD021DSEX				Aluminum case	Assortment of Ming Shin bits	No	Height (H)	144 (5-5/8)
TD021DSEW	White	BL7010/ 2	DC07SA	Tool bag (of cloth)	3 Driver bits, 1 Drill bit	Yes		

*1: Assortment of Ming Shin bits is supplied for some countries instead of 3 Driver bits and 1 Drill bit.

► Specification

Specification		Model	TD021D
Battery	Type of cell		Li-ion
	Voltage: V		7.2
	Capacity: Ah		1.0
	Charging time (approx.): min.		30 with DC07SA
No load speed: min ⁻¹ = rpm			0 - 2,300
Impacts per min: min ⁻¹ = ipm			0 - 3,000
Driving shank: mm (")			6.35 (1/4) Hex
Max. fastening torque*2: N.m [kgf.cm] (in.lbs)			22 [224] (195)
Capacities	Machine screw		M3 - M8 (1/8" - 5/16")
	Standard bolt		M3 - M8 (1/8" - 5/16")
	High tensile bolt		M3 - M6 (1/8" - 1/4")
	Coarse thread (length)		22mm - 45mm (7/8" - 1-3/4")
Switch			Rotary type, with Variable speed control and Reversing function
Electric brake			Yes
Torque adjustment			No
Variable speed control			Yes
Reversing function			Yes
LED job light			Yes
Net weight*3: kg (lbs)			0.54 (1.2)

*2: Max. fastening torque is the value of torque measured at 3 seconds after seating of M8 high tensile bolt.

*3: Weight according to EPTA-Procedure 01/2003, with battery BL7010

► Standard equipment

Holster, Driver bits, Drill bits, Tool bag or Aluminum case

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

► Optional accessories

Driver bits, Drill bits, Socket bits, Rebar binding attachment set, Battery BL7010, Charger DC07SA, Charger DC10WA

► Repair

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

[1] NECESSARY REPAIRING TOOLS

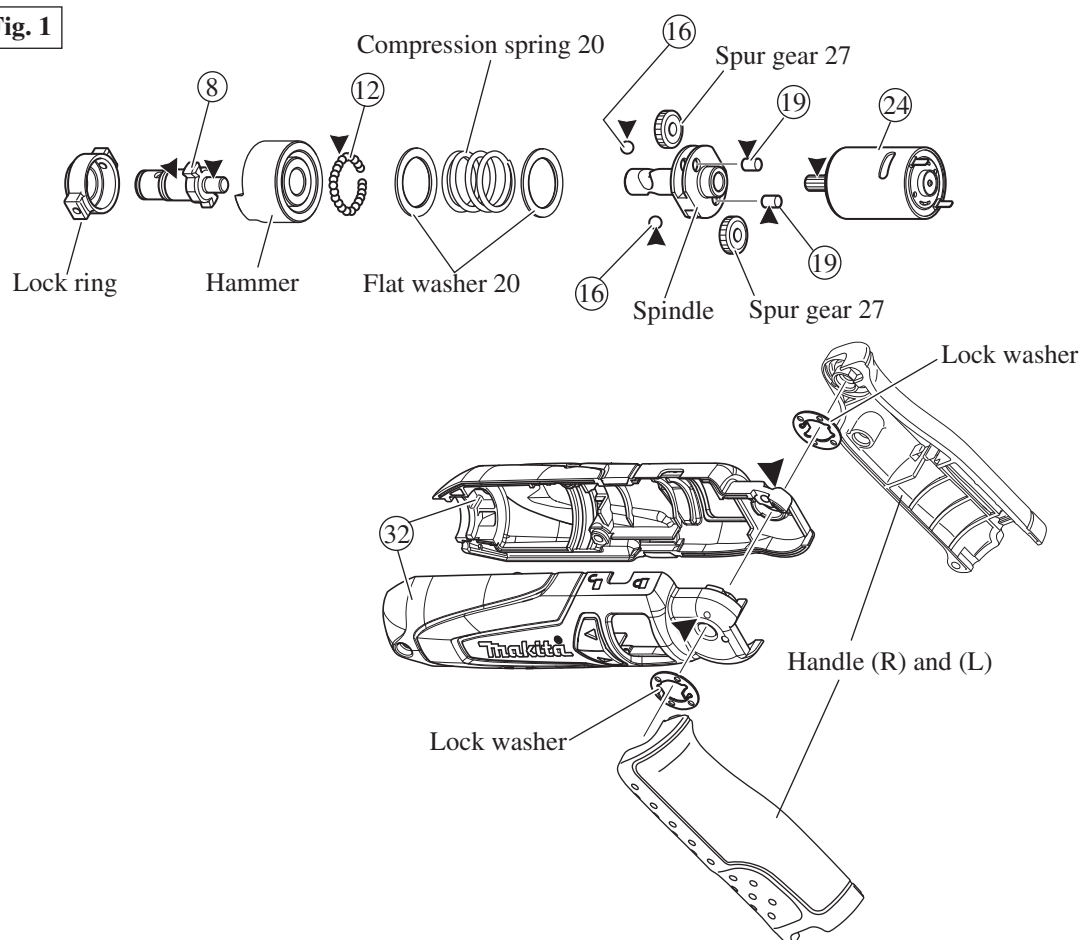
Code No.	Description	Use for
1R004	Retaining ring pliers	Removing Retaining ring S-12 from Spindle M*
1R026	Bearing setting pipe 16-8.2	Mounting Ball bearing 6801LLU to Internal gear case
1R045	Gear extractor	Disassembling Hammer section
1R217	Ring 22	Removing Ball bearing 6801LLU from Internal gear case
1R232	Pipe 30	Supporting Internal gear case when mounting Ball bearing 6801LLU
1R288	Screwdriver magnetizer	Magnetizing screwdriver for removing Steel balls
1R291	Retaining ring S and R pliers	Disassembling Driver bit holder section
1R346	Center attachment	Disassembling Hammer section (modular use with 1R045)

[2] LUBRICATIONS

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
⑧	Spindle M (Spindle N is used for some countries.)	Surface that contacts Lock ring Pin portion that is inserted into Spindle
⑫	Steel ball 3.0 (23 pcs)	Whole surface
⑯	Steel ball 4.8 (2 pcs)	Whole surface
⑲	Pin 5	Surface that contacts Spur gear 27
⑳	Motor	Teeth portion of pinion gear
㉓	Motor housing R and L	Each hinge portion that contacts Lock washer

Fig. 1



Repair

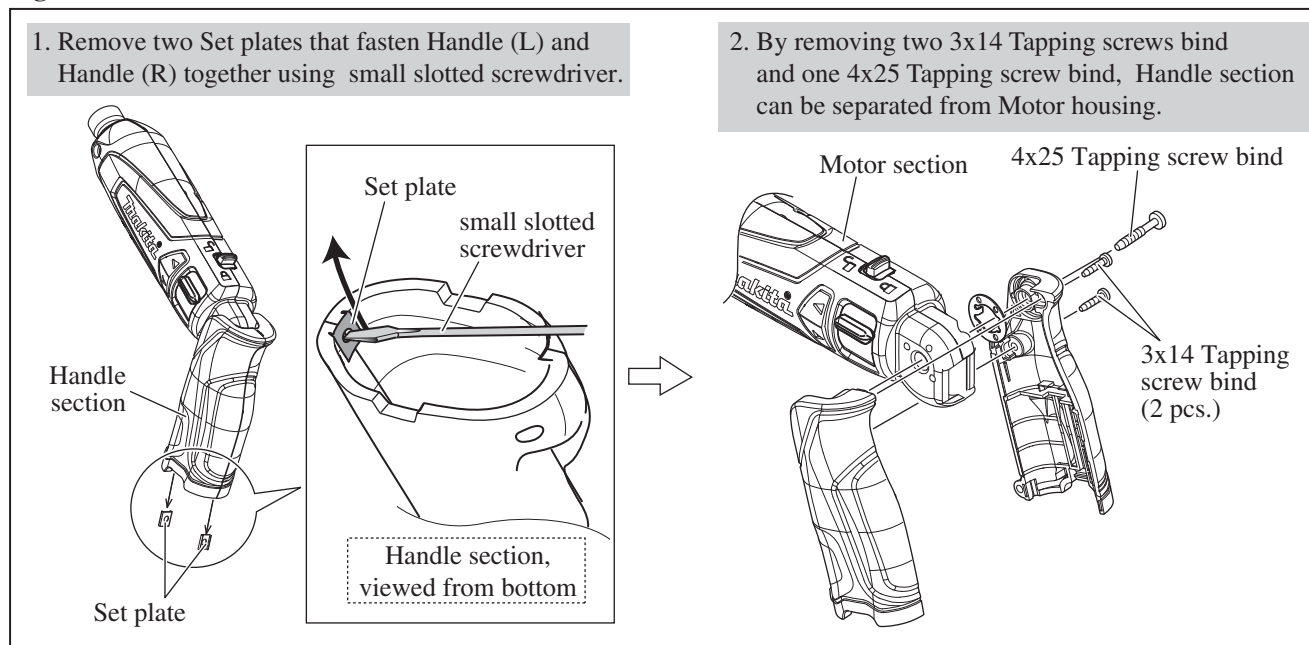
[3] DISASSEMBLY/ASSEMBLY

[3] -1. Handle Section

DISASSEMBLING

Handle section can be separated from Motor housing as illustrated in **Fig. 2**.

Fig. 2



ASSEMBLING

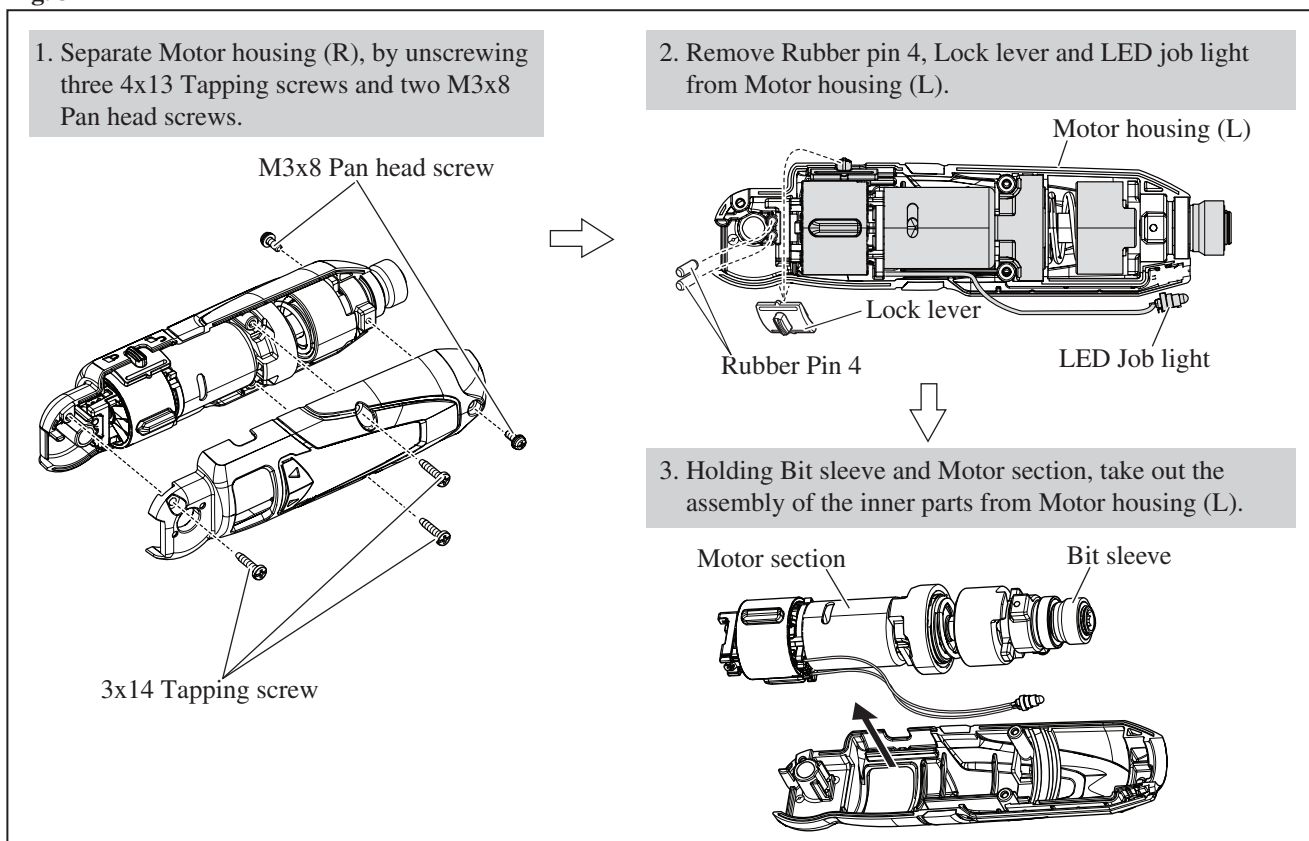
Assemble Handle section by doing the reverse of the disassembling steps. (Refer to **Fig. 2**.)

[3] -2. Motor Section

DISASSEMBLING

- 1) Disassemble Handle section as illustrated in **Fig. 2**.
- 2) Remove the inner parts as illustrated in **Fig. 3**.

Fig. 3



Repair

[3] DISASSEMBLY/ASSEMBLY

[3] -2. Motor Section

DISASSEMBLING

3) DC Motor can be disassembled from the assembly of inner parts as illustrated in **Figs. 4, 5**.

Fig. 4

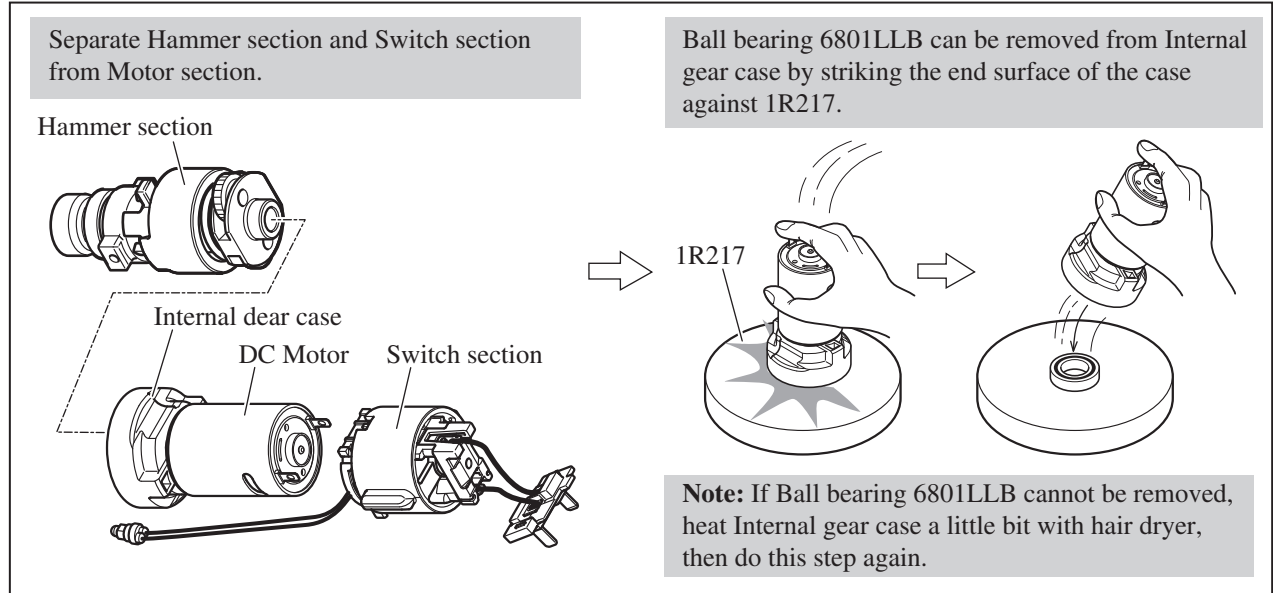
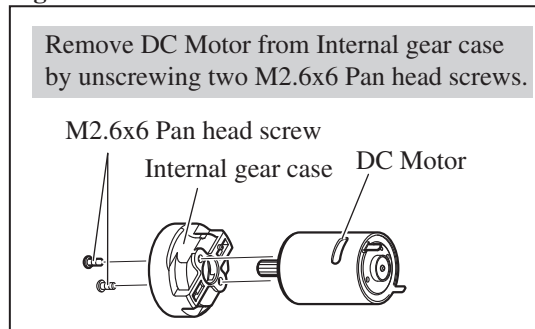


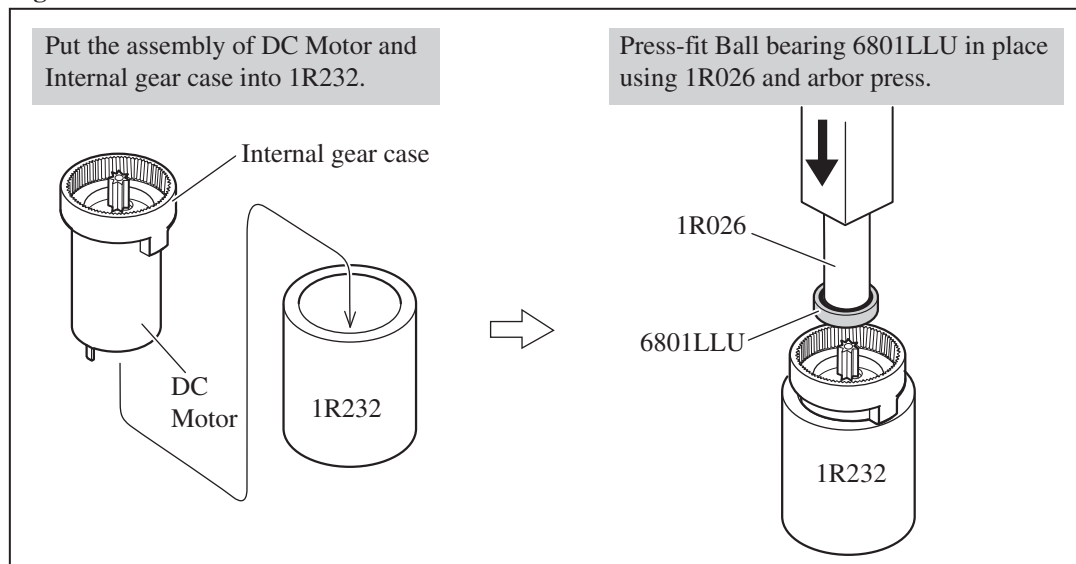
Fig. 5



ASSEMBLING

- 1) Assemble Internal gear case to DC Motor by fastening M2.6x6 Pan head screws. (Refer to **Fig. 5**.)
- 2) Assemble Ball bearing 6801LLU to Internal gear case illustrated in **Fig. 6**.

Fig. 6



- 3) Assemble Hammer section to Internal gear case, then connect Switch section to DC motor. (Refer to the **left** illustration in **Fig. 4**.)

► Repair

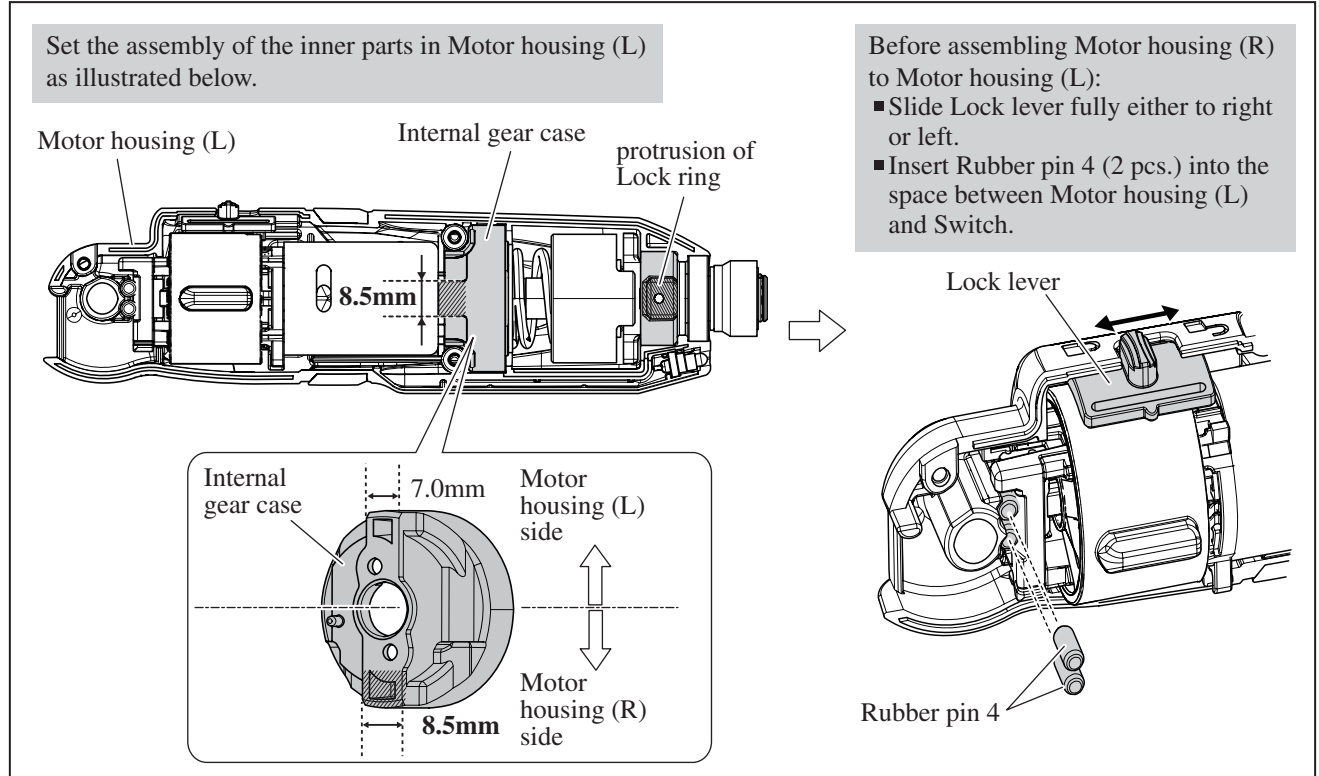
[3] DISASSEMBLY/ASSEMBLY

[3] -2. Motor Section

ASSEMBLING

4) Assemble the inner parts (Hammer section, DC Motor with Internal gear case, Switch section) as illustrated in **Fig. 7**.

Fig. 7



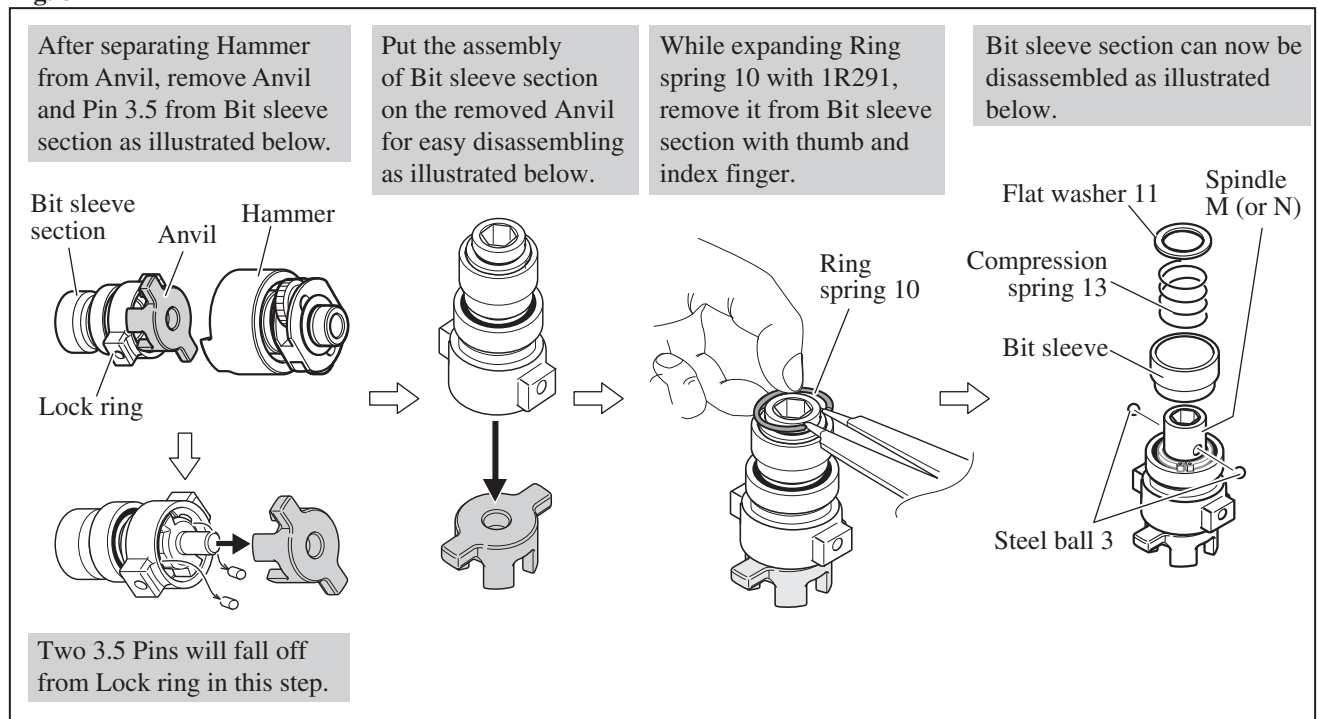
5) Assemble Motor housing (R) to Motor housing (L). (Refer to the **left** illustration in **Fig. 3**.)

[3] -3. Bit Holder Section

DISASSEMBLING

- 1) Disassemble Handle section and Motor housing. (**Figs. 2, 3**)
- 2) From Motor section, separate Hammer section as described on **left** in **Fig. 4**.
- 3) Disassemble the removed Hammer section as illustrated in **Fig. 8**.

Fig. 8



► Repair

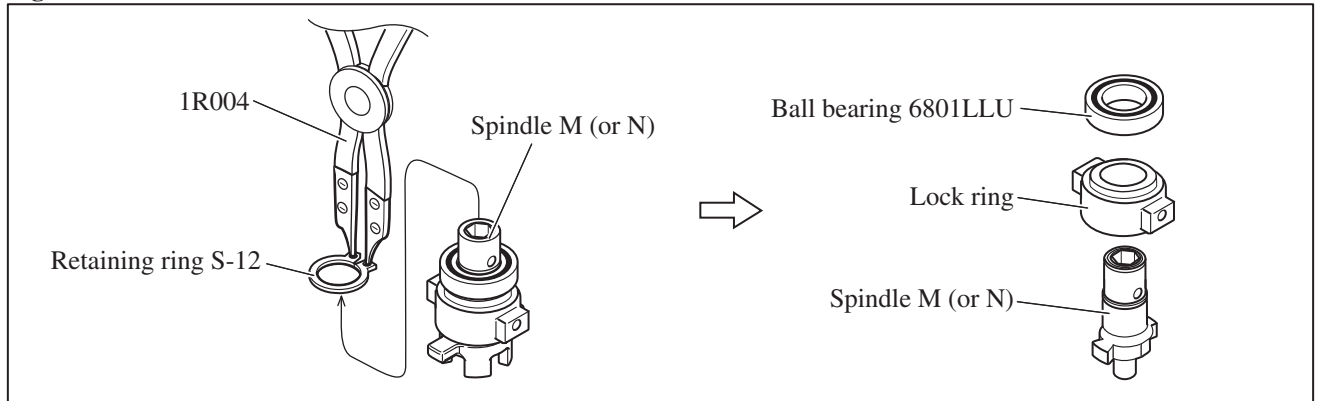
[3] DISASSEMBLY/ASSEMBLY

[3] -3. Bit Holder Section

DISASSEMBLING

4) After disassembling Bit sleeve section, Spindle M (or N) section can be disassembled as illustrated in **Fig. 9**.

Fig. 9



ASSEMBLING

- 1) Assemble Lock ring and Ball bearing 6801LLU to Spindle M (or N), then secure them with Retaining ring S-12. (Refer to **Fig. 9**.)
- 2) Assemble Bit sleeve section and Hammer section. (**Figs. 10, 11, 8**)

Fig. 10

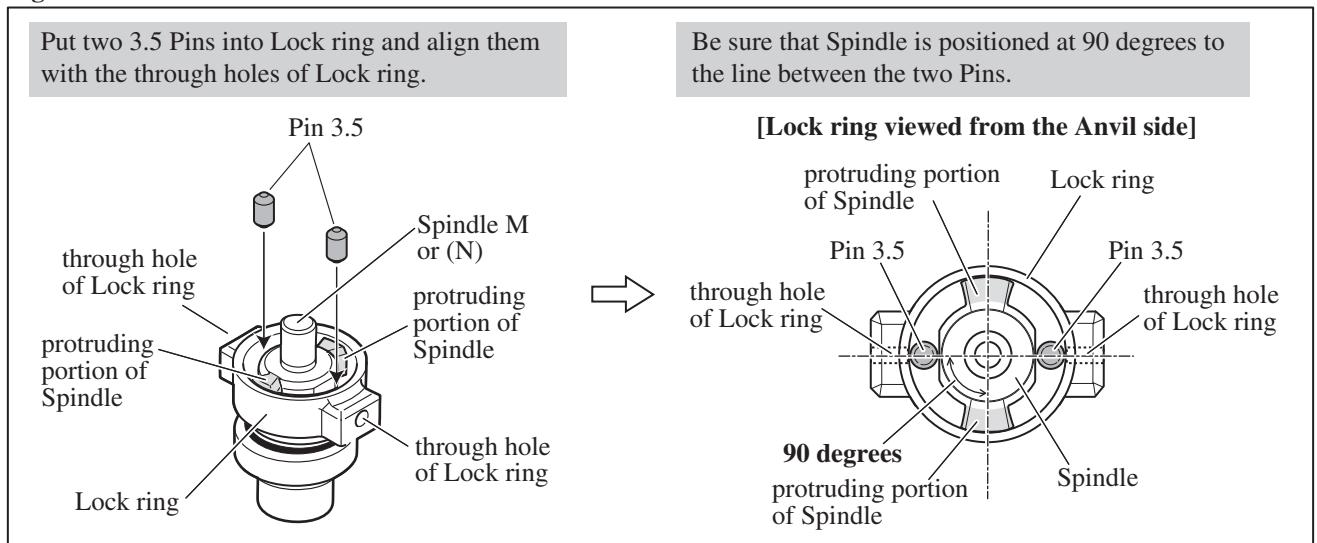
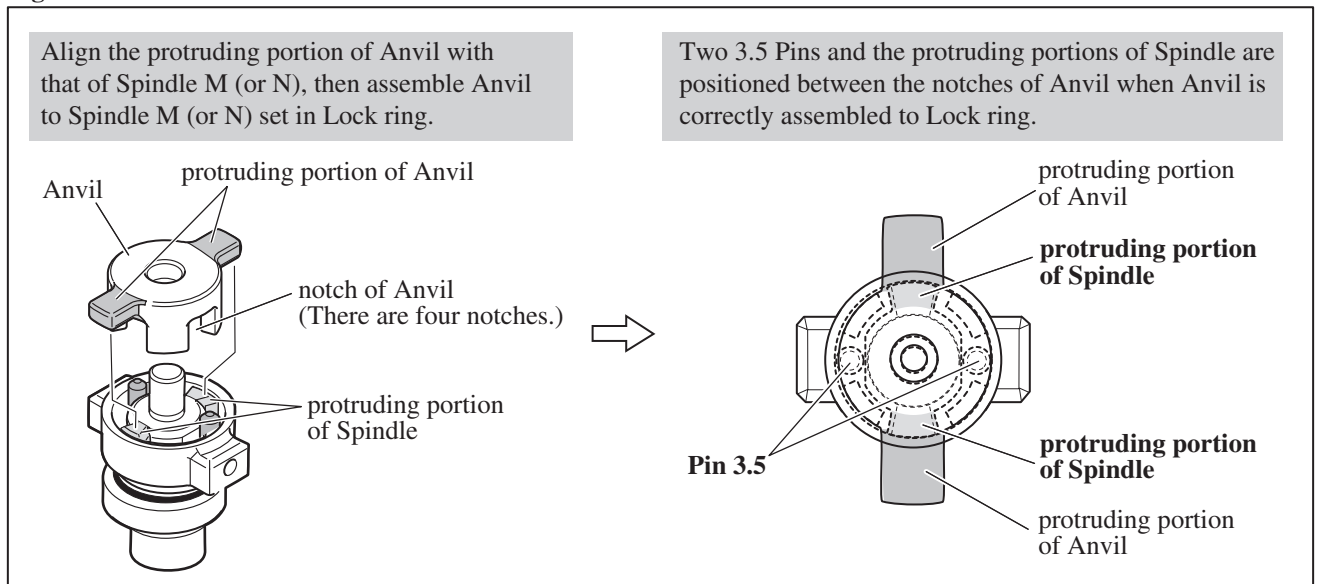


Fig. 11



Repair

[3] DISASSEMBLY/ASSEMBLY

[3] -4. Hammer Section

DISASSEMBLING

- 1) Disassemble Handle section and Motor housing set as described in **Figs. 2, 3.**
- 2) From Motor section, separate Hammer section as described on the **left** in **Fig. 4.**
- 3) Separate Hammer from Anvil. (**Fig. 12**)
- 4) Hammer section can now be disassembled using 1R045. (**Figs. 13, 14**)

Fig. 12

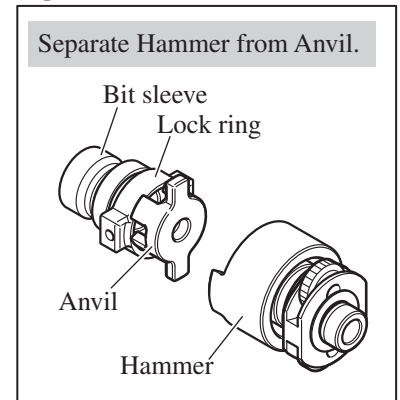


Fig. 13

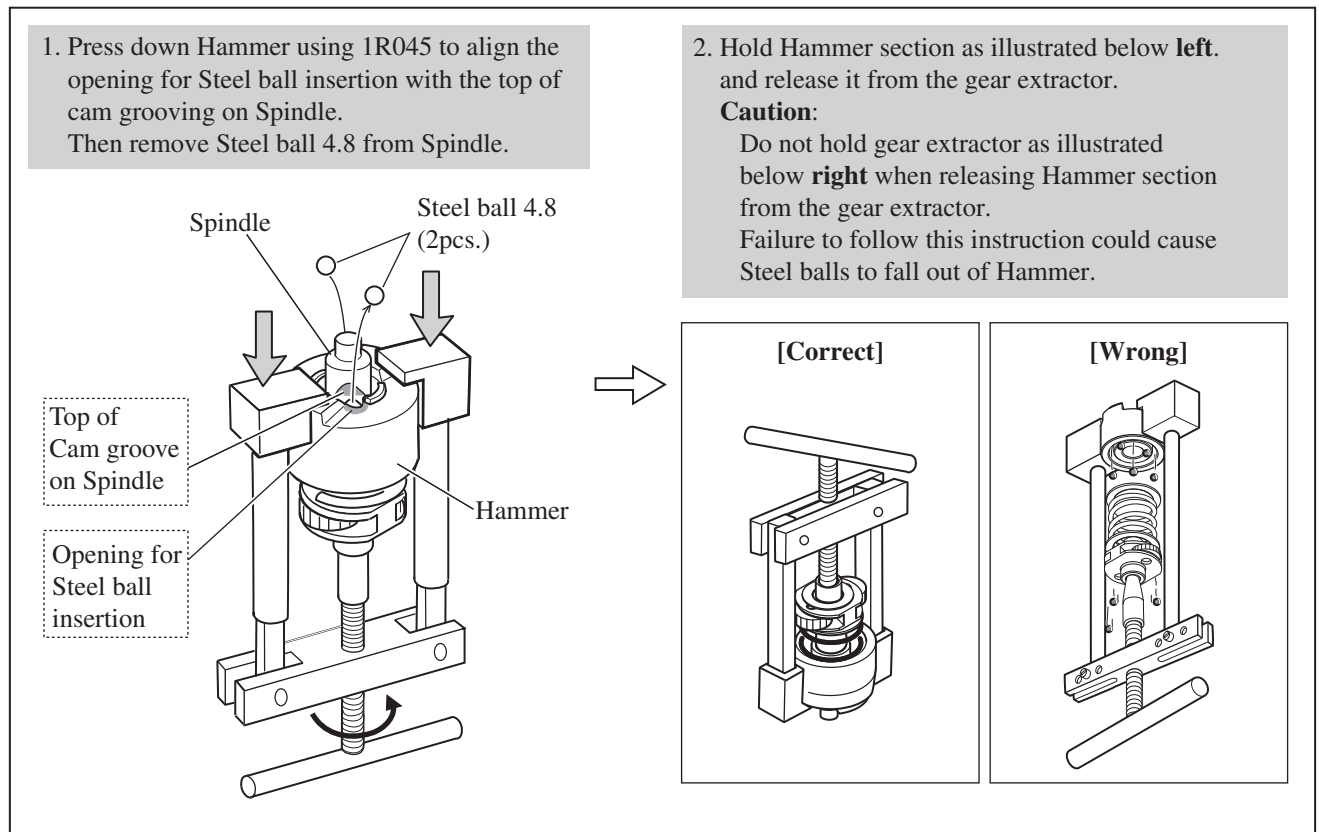
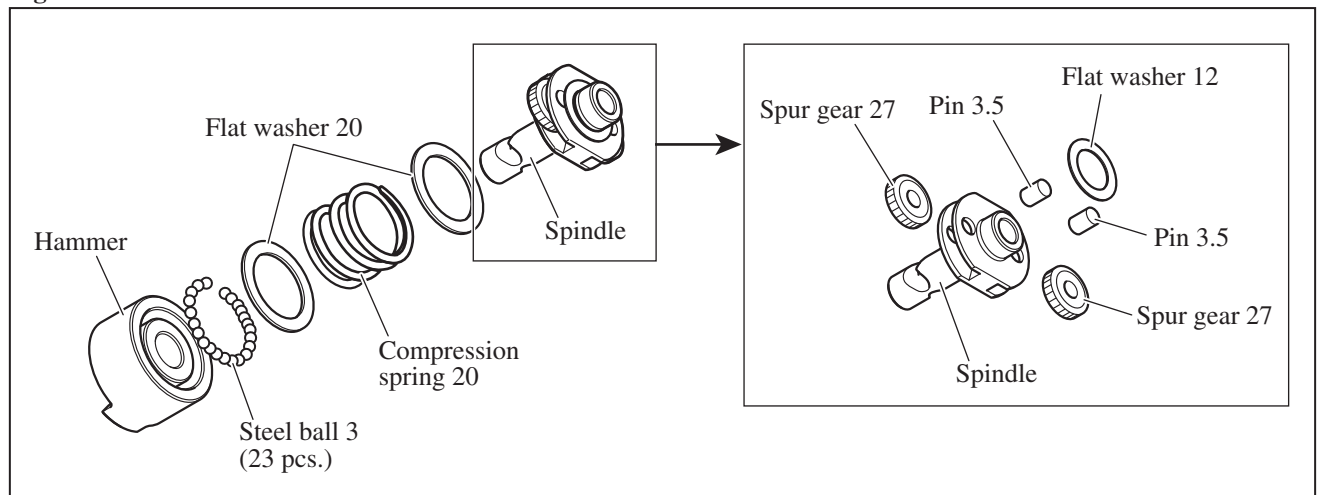


Fig. 14



► Repair

[3] DISASSEMBLY/ASSEMBLY

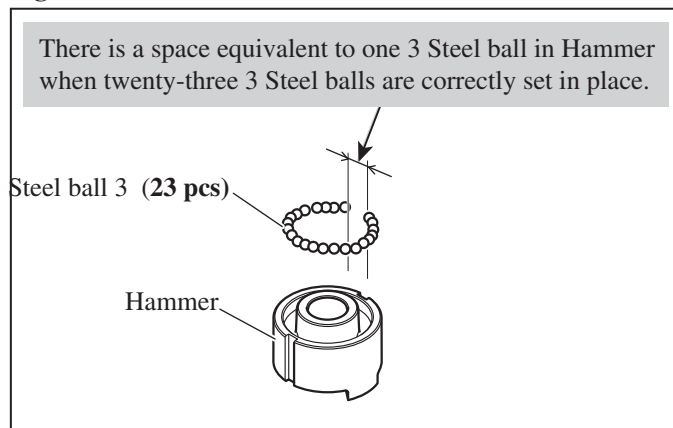
[3] -4. Hammer Section

ASSEMBLING

Do the reverse of the disassembling steps.

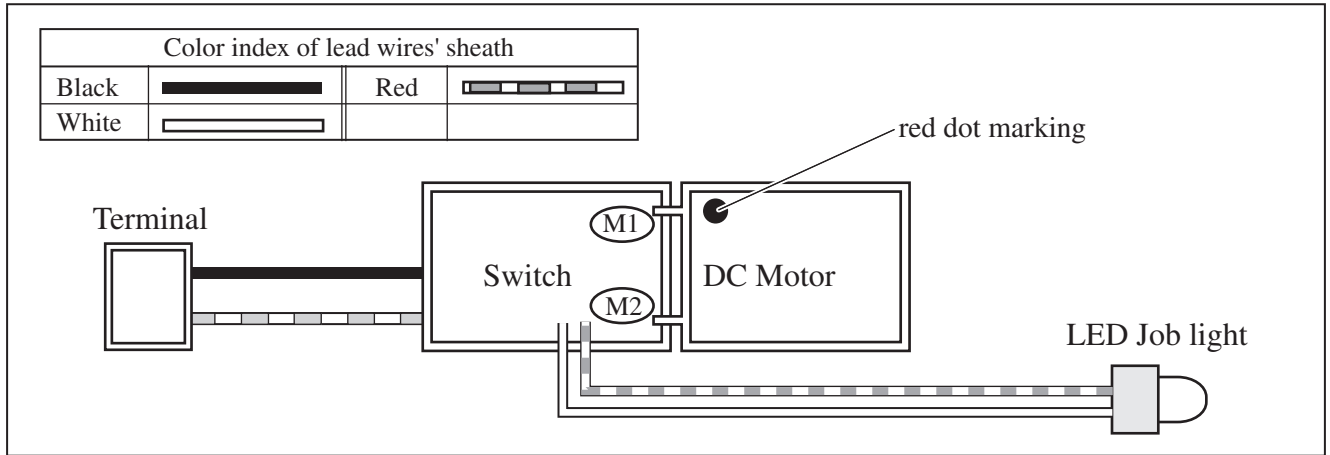
Note: Make sure that twenty-three 3 Steel balls are set in Hammer before assembling. (**Fig. 15**)

Fig. 15



► Circuit diagram

Fig. D-1



► Wiring diagram

Fig. D-2

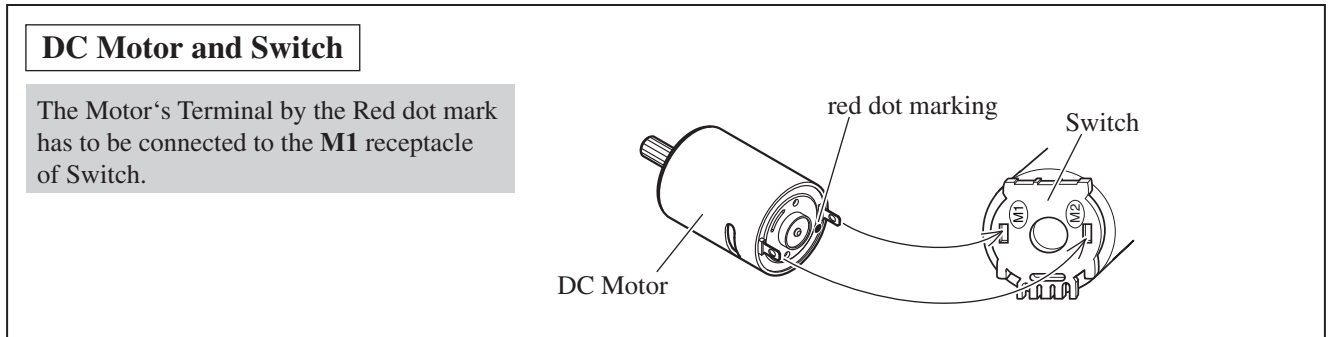


Fig. D-3

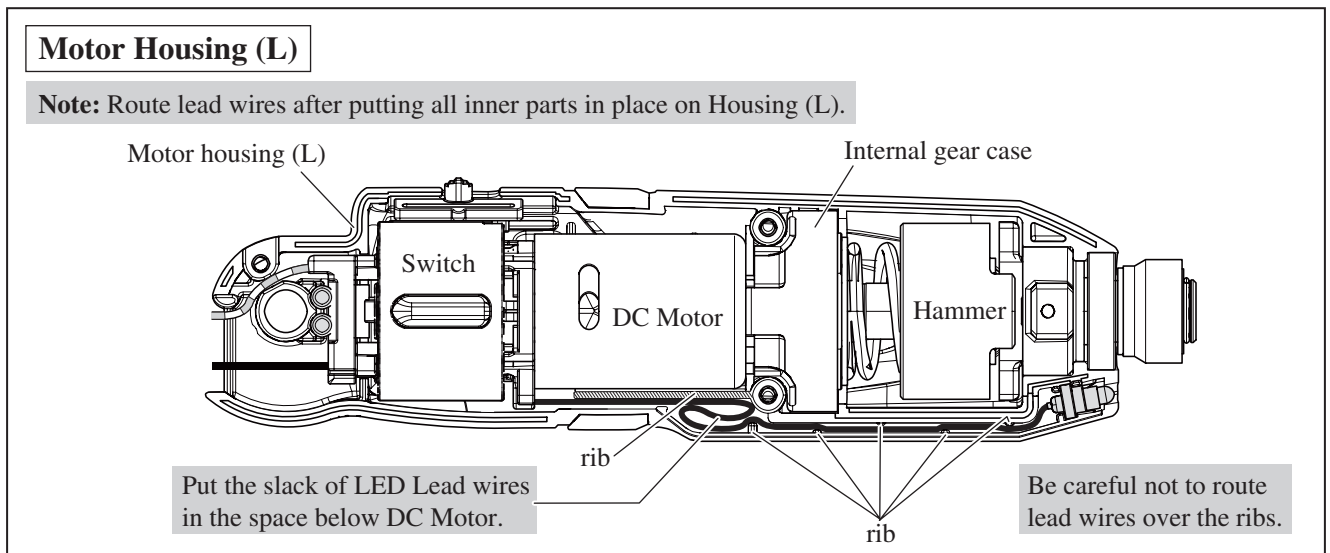


Fig. D-4

