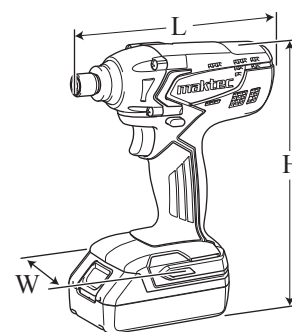


TECHNICAL INFORMATION

Model No. ▶ MT690/ MT691

Description ▶ Cordless Impact Driver



The image above is MT691.

Dimensions: mm (")	
Length (L)	173 (6-13/16)
Width (W)	82 (3-1/4)
Height (H)	225 (8-7/8)

CONCEPT AND MAIN APPLICATIONS

Models MT690/ MT691 are the first 14.4V/ 18V maktec cordless impact drivers powered by 1.1Ah Li-ion batteries L1451/ L1851 designed to provide the cost advantage.

These products are available in the following variations.

MT690

Model No.	Charger	Battery		Battery cover	Plastic carrying case
		Type	Quantity		
MT690Z	No	No	No	No	No
MT690E	DC1851	L1451	2	1	Yes

MT691

Model No.	Charger	Battery		Battery cover	Plastic carrying case	Phillips bit 2-65	Hook
		Type	Quantity				
MT691Z	No	No	No	No	No	No	No
MT691E	DC1851	L1851	2	1	Yes	No*1	No*1

*1: Yes for Taiwan

Specification

Specification		Model	MT690	MT691
Battery	Voltage: V		14.4	18
	Capacity: Ah		1.1	
	Cell		Li-ion	
	Energy capacity: Wh		16	20
	Charging time: min.		60 with DC1851	
Max output: W			230	
No load speed: min. ⁻¹ =rpm			0 - 2,400	
Impacts per minute: min. ⁻¹ =ipm			0 - 3,000	
Driving shank			6.35mm (1/4") Hex	
Max. fastening torque*1: N.m [kgf.cm] (in.lbs)			130 [1,330] (1,150)	135 [1,380] (1,200)
Capacities	Machine screw		M4 - M8 (5/32" - 5/16")	
	Standard bolt		M5 - M14 (3/16" - 9/16")	
	High tensile bolt		M5 - M12 (3/16" - 1/2")	
	Coarse thread (length)		22mm - 125mm (7/8" - 4-7/8")	
Electric brake			Yes	
Torque adjustment			No	
Variable speed control			Yes	
Reversing function			Yes	
LED Job light			No	
Weight according to EPTA-Procedure 01/2003*2: kg (lbs)			1.4 (3.1)	1.5 (3.2)

*1: Torque at 3 seconds after seating, when fastening M14 high tensile bolt

*2: MT690/with battery L1451, MT691/with battery L1851

Standard equipment

See the model variation list above.

Note: The standard equipment for the tools may vary by country.

Optional accessories

Charger DC1851

Li-ion battery L1451 (for MT690 only)

Li-ion battery L1851 (for MT691 only)

► Repair

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

[1] NECESSARY REPAIRING TOOLS

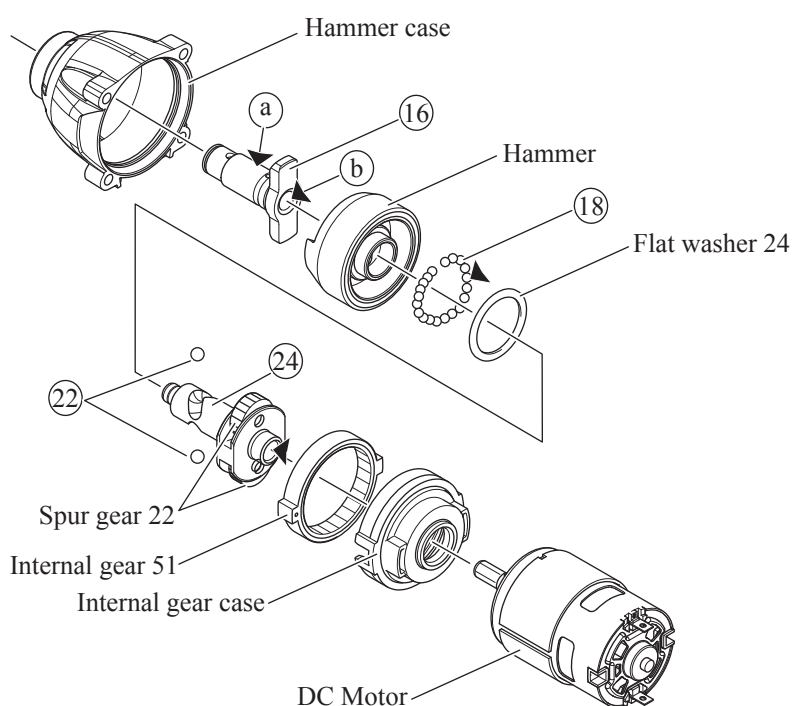
Code No.	Description	Use for
1R045	Gear extractor (large)	disassembling/ assembling Hammer section
1R232	Pipe 30	holding Anvil when disassembling Bit holder section
1R288	Screwdriver magnetizer	magnetizing a screwdriver for easy removal of steel balls
1R291	Retaining ring S and R pliers	removing Ring spring 11 of Bit holder section

[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
①⑥	Anvil	Ⓐ Drum portion that contacts Sleeve 14 and Oil seal 14 of Hammer case	a little
		Ⓑ Hole portion into which ②④ Spindle is inserted	
①⑧	Steel ball 3.5 (24 pcs.)	Surface that contacts 24 pcs. of Steel ball 3.5	
②②	Steel ball 5.6 (2 pcs.)	Whole portion	
②④	Spindle	Hole portion into which DC motor's pinion gear is inserted	approx. 2 g

Fig. 1



► **Repair**

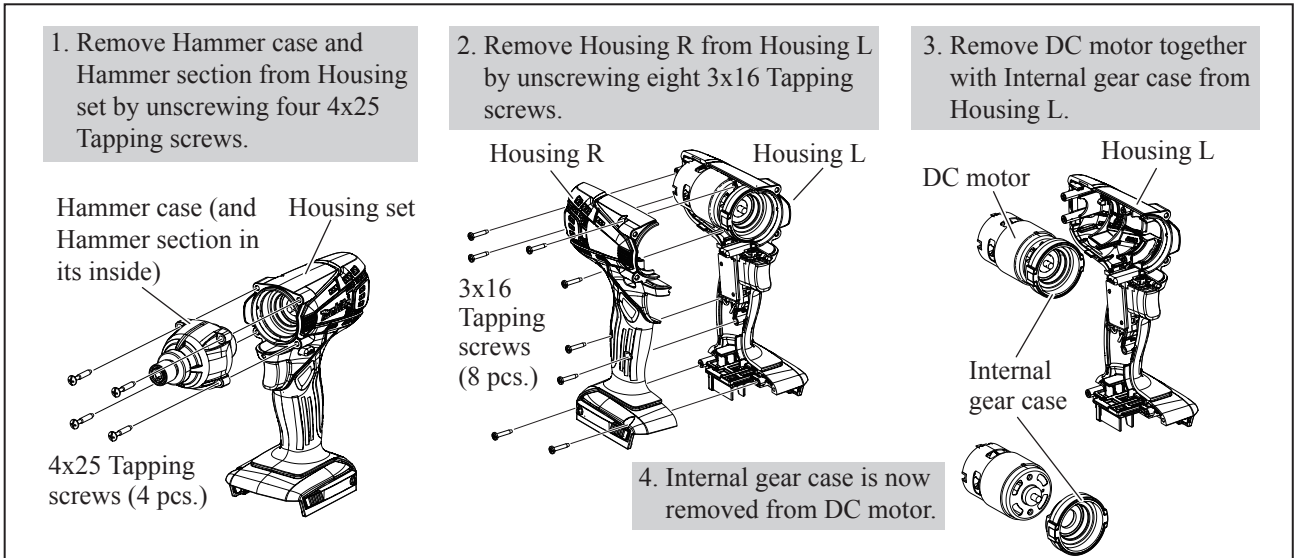
[3] DISASSEMBLY/ASSEMBLY

[3] -1. DC Motor

DISASSEMBLING

(1) Disassemble DC motor as drawn in **Fig. 2**.

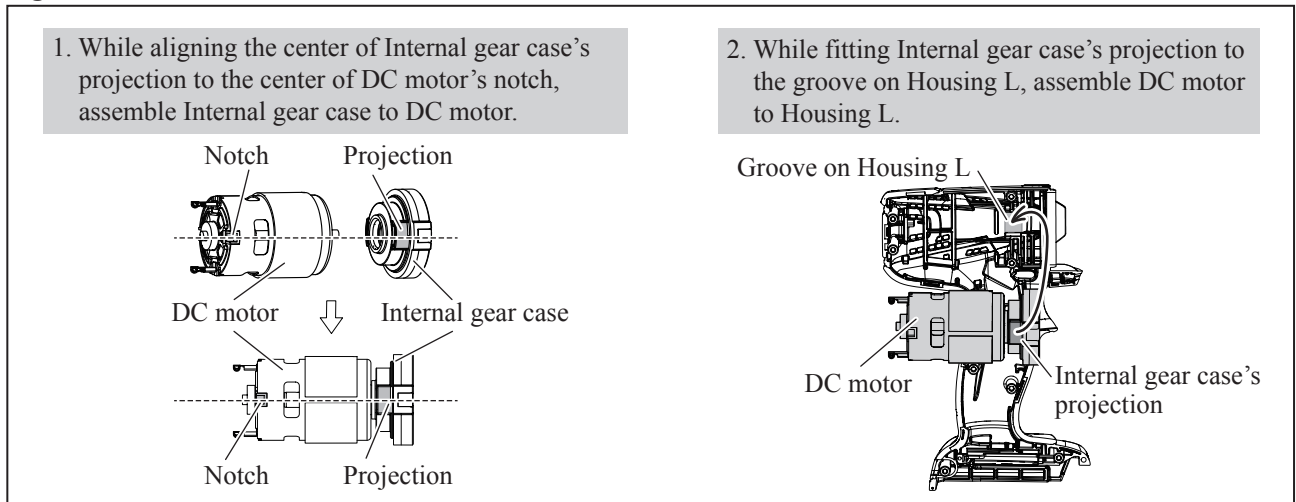
Fig. 2



ASSEMBLING

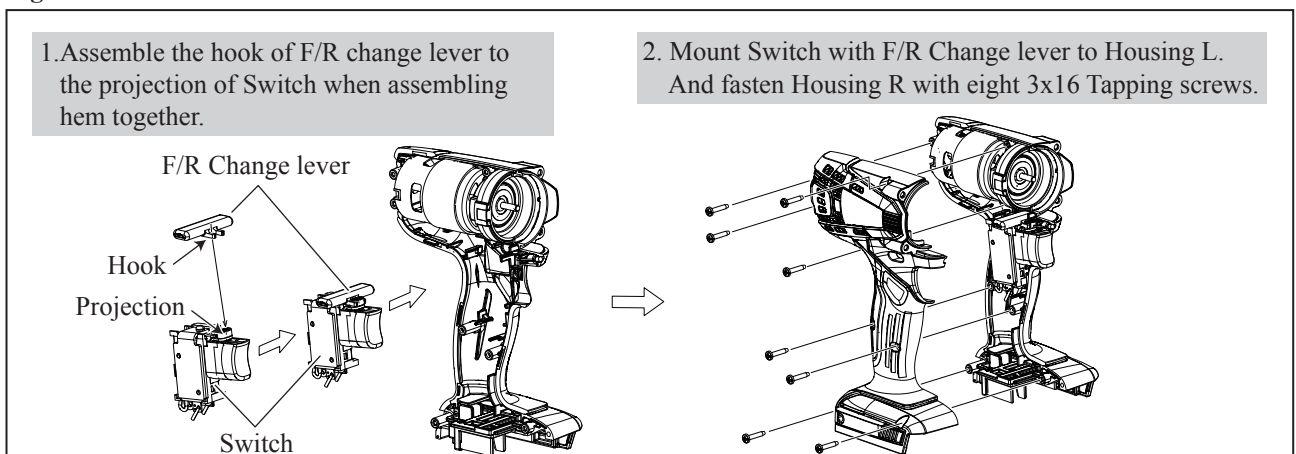
(1) Assemble DC motor and Internal gear case as drawn in **Fig. 3**.

Fig. 3



(2) Before mounting Housing R to Housing L, assemble F/R change lever to Switch as drawn in **Fig. 4**.

Fig. 4



► **Repair**

[3] DISASSEMBLY/ASSEMBLY

[3] -2. Anvil, Bit Holder Section

DISASSEMBLING

- (1) Remove Hammer case and Hammer section from Housing set as per the **left** drawing in **Fig. 2**.
- (2) Disassemble Bit holder section and Anvil as drawn in **Figs. 5** and **6**.

Fig. 5

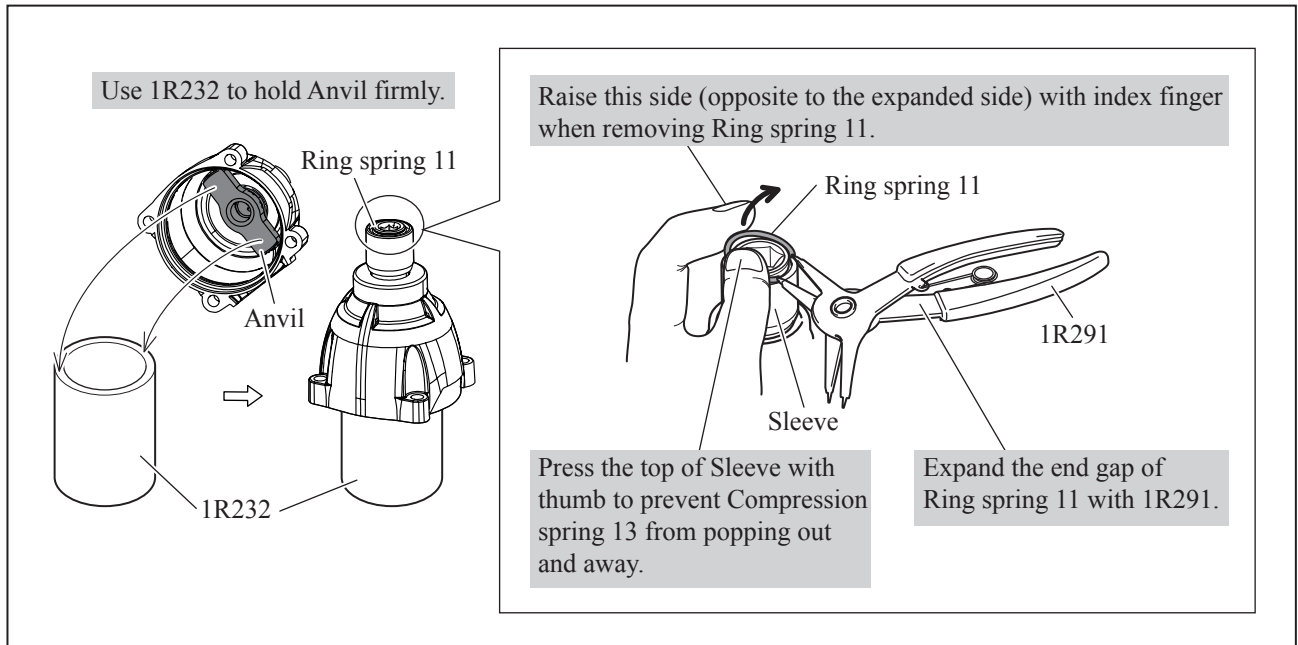
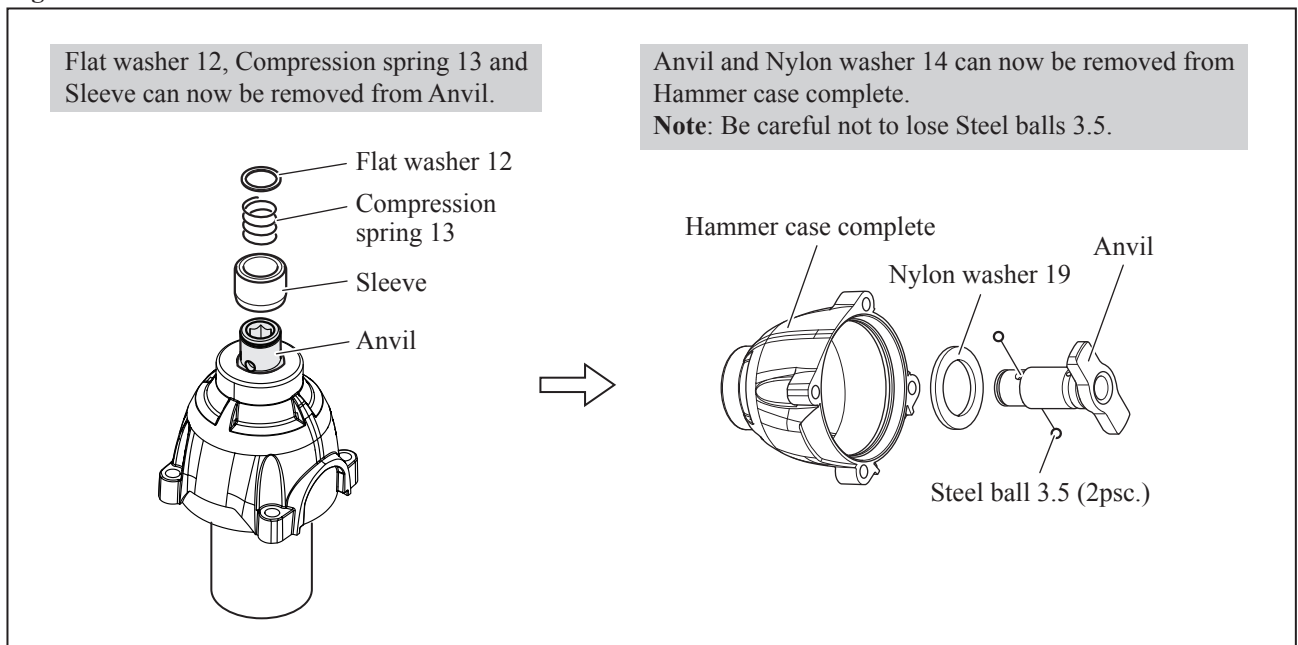


Fig. 6



ASSEMBLING

Assemble Anvil and Bit holder section by reversing the disassembly procedure. (**Figs. 6** and **5**)

► Repair

[3] DISASSEMBLY/ASSEMBLY

[3] -3. Hammer Section

DISASSEMBLING

- (1) Remove Hammer case and Hammer section from Housing set as per the **left** drawing in **Fig. 2**.
- (2) Disassemble Hammer section as drawn in **Figs. 7, 8, 9** and **10**.

Fig. 7

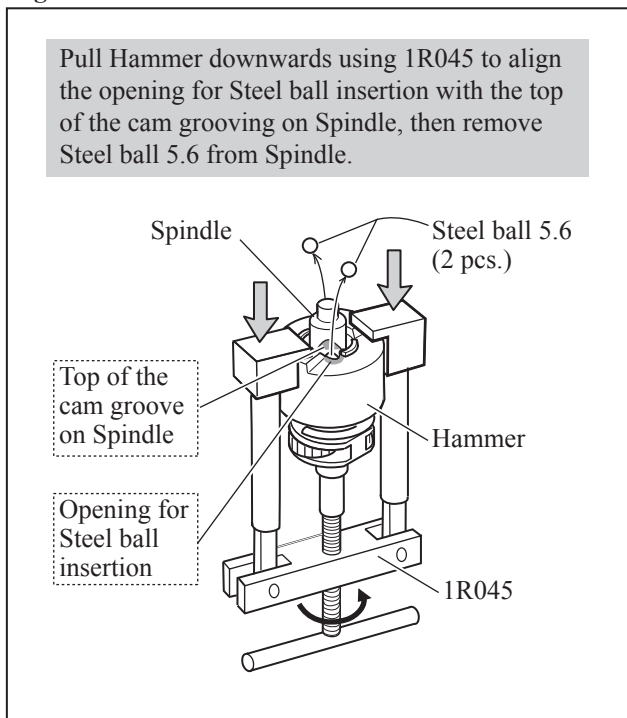


Fig. 8

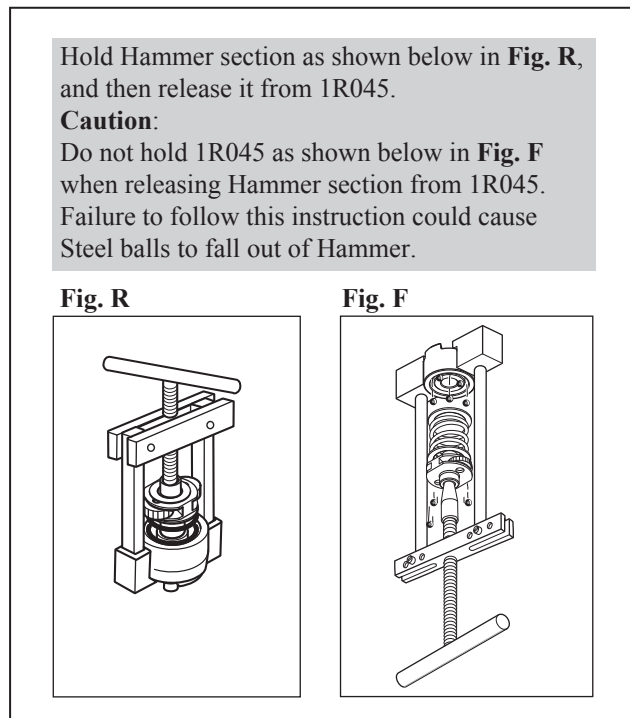


Fig. 9

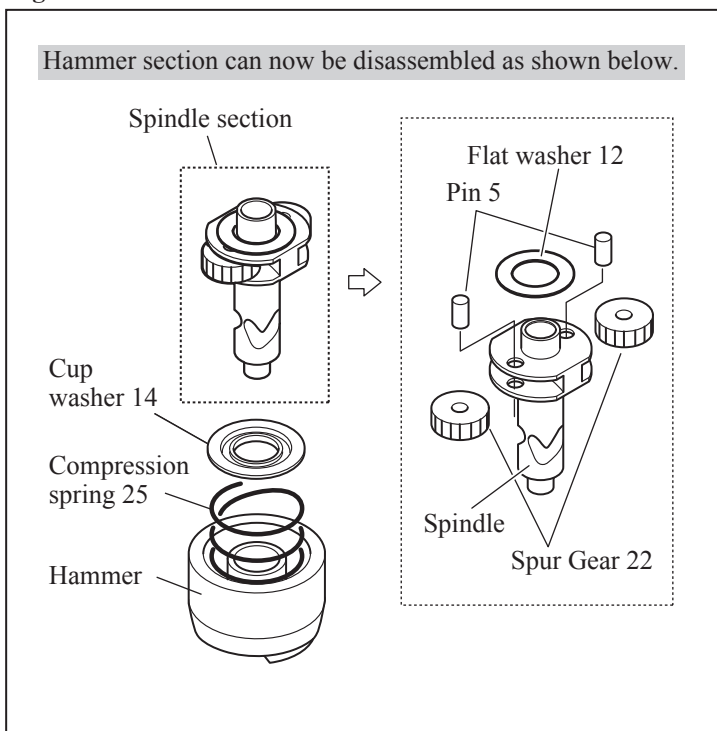
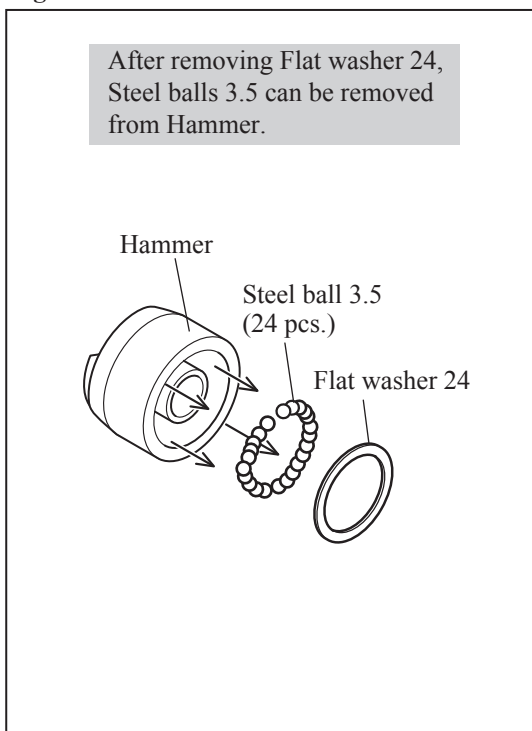


Fig. 10



► Repair

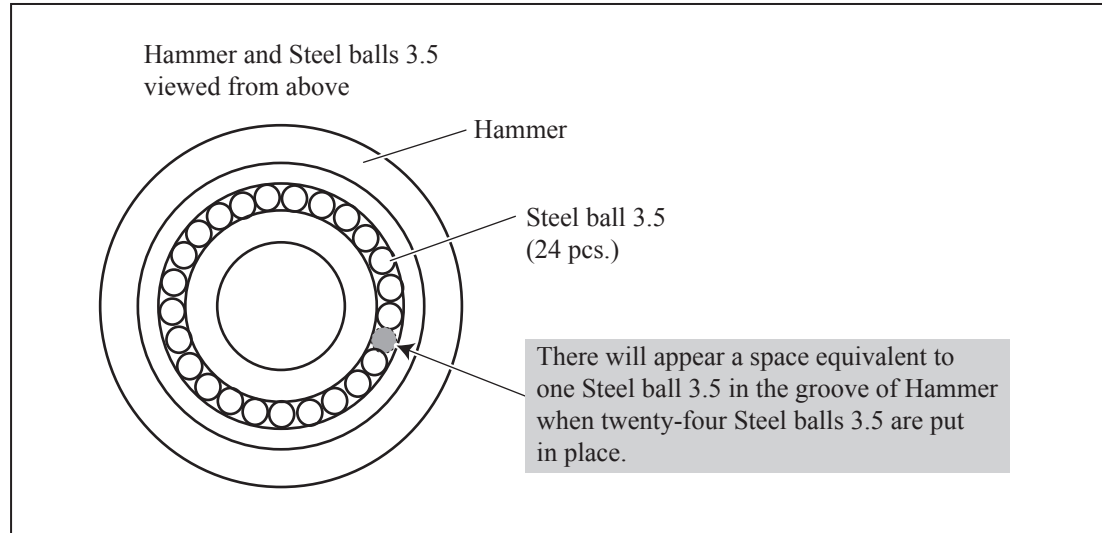
[3] DISASSEMBLY/ASSEMBLY

[3] -3. Hammer Section (cont.)

ASSEMBLING

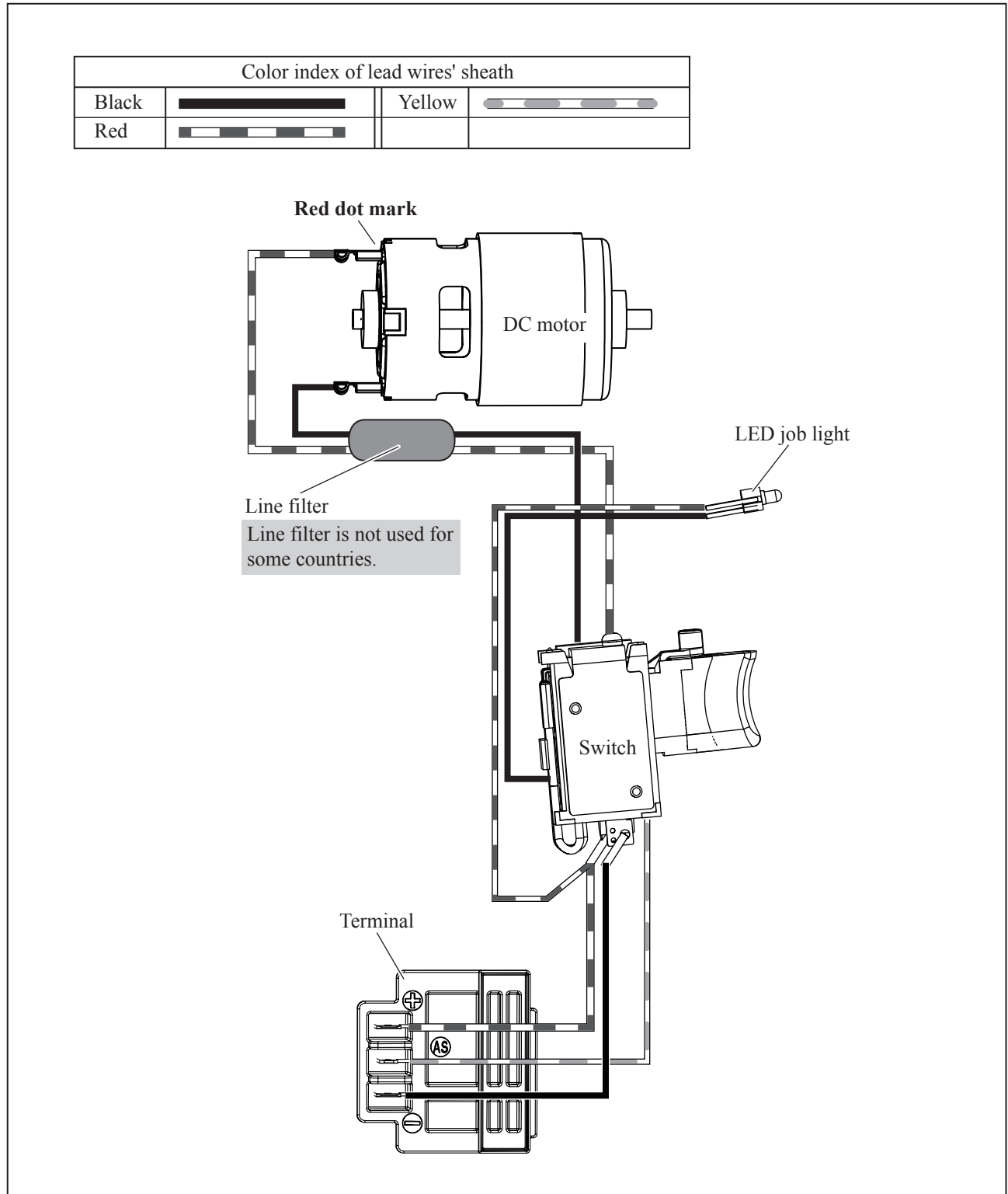
Assemble Hammer section by reversing the disassembly procedure. Refer to **Figs. 11, 10, 9** and **8**. Before putting Flat washer 24 in Hammer (Refer to **Fig. 10**), make sure that twenty-four Steel balls 3.5 are put in the groove of Hammer as shown in **Fig. 11**.

Fig. 11



► **Circuit diagram**

Fig. D-1



► Wiring diagram

Fig. D-2

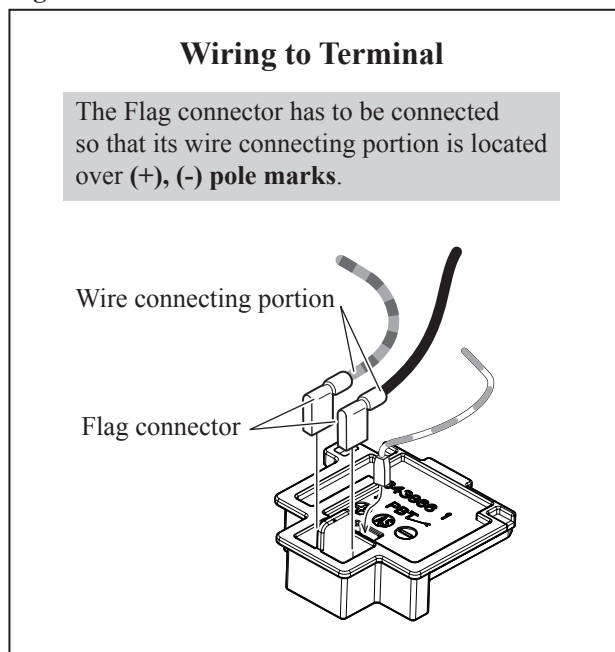


Fig. D-3

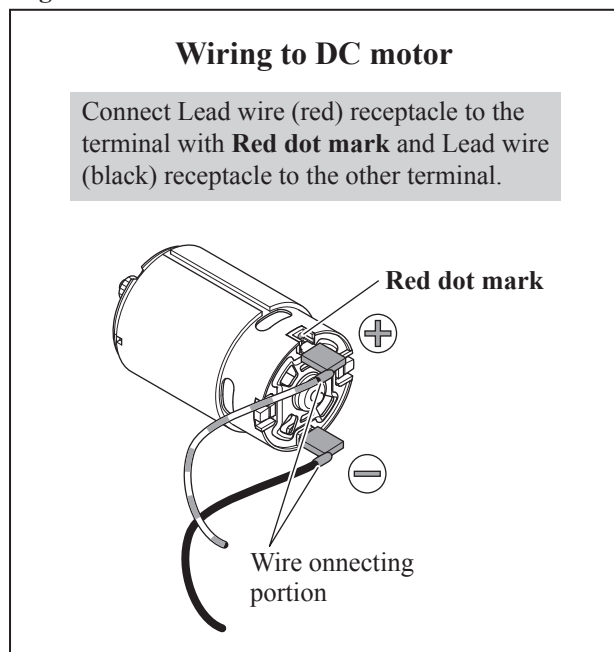


Fig. D-4

