

# TECHNICAL INFORMATION

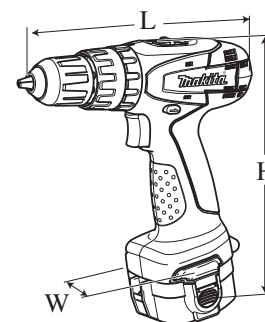


PRODUCT

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**Models No.** ▶ 8271D

**Description** ▶ 12V Cordless Hammer Driver Drill 10mm (3/8")



## CONCEPT AND MAIN APPLICATIONS

Model 8271D has been developed as the successor model of 8270D, featuring:

- Single sleeve keyless drill chuck for easy bit installation/removal
- New tool design

Model 8271D is available in the following variations.

| Model No. | Battery               |          | Battery cover | Charger | Rechargeable flashlight | Plastic carrying case |
|-----------|-----------------------|----------|---------------|---------|-------------------------|-----------------------|
|           | type                  | quantity |               |         |                         |                       |
| 8271DZ    | No                    | ---      | No            | No      | No                      | No                    |
| 8271DWE   | 1220<br>(Ni-Cd 1.3Ah) | 2        | 2             | DC1414  | No                      | Yes                   |
| 8271DWAE  | 1222<br>(Ni-Cd 2.0Ah) | 2        | 2             | DC1414  | No                      | Yes                   |
| 8271DWALE |                       |          |               |         | ML120                   |                       |
| 8271DWPE  | PA12<br>(Ni-Cd 1.3Ah) | 2        | 2             | DC1414  | No                      | Yes                   |
| 8271DWPLE |                       |          |               |         | ML120                   |                       |

| Dimensions: mm (") |             |
|--------------------|-------------|
| Length (L)         | 210 (8-1/4) |
| Width (W)          | 95 (3-3/4)  |
| Height (H)         | 240 (9-1/2) |

Also, the models include the accessory listed in "Standard equipment".

## ► Specification

|  |              |                       |
|--|--------------|-----------------------|
| Battery                                  | Voltage: V   | 12                    |
|  | Capacity: Ah | 1.3/ 2.0              |
|  | Cell         | Ni-Cd                 |
| Max output: W                            |              | 165                   |
| No load speed:<br>min-1=rpm              | High         | 0 - 1,300             |
|  | Low          | 0 - 400               |
| Impacts per minute:<br>min-1=ipm         | High         | 0 - 19,500            |
|  | Low          | 0 - 6,000             |
| Capacity of drill chuck: mm (")          |              | 0.8 - 10 (1/32 - 3/8) |
| Capacity: mm (")                         | Steel        | 10 (3/8)              |
|  | Wood         | 25 (1)                |
|  | Masonry      | 8 (5/16)              |
| Torque setting                           |              | 16 stage + drill mode |
| Clutch torque setting: N.m (in.lbs)      |              | 1.0 - 4.0 (9 - 35)    |
| Lock torque: N.m (in.lbs)                |              | 28 (250)              |
| Max. fastening torque: N.m (in.lbs)      | Hard joint   | 30 (260)              |
|  | Soft joint   | 18 (160)              |
| Electric brake                           |              | Yes                   |
| Mechanical speed control                 |              | Yes (2 speed)         |
| Variable speed control                   |              | Yes                   |
| Reverse switch                           |              | Yes                   |
| Net weight [with Battery 1222]: kg (lbs) |              | 1.6 (3.5)             |

## ► Standard equipment

+/- Bit 2-65 (double-end) ..... 1 pc

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

## ► Optional accessories

|              |               |                     |                           |                        |
|--------------|---------------|---------------------|---------------------------|------------------------|
| Battery 1220 | Battery 1235A | Charger DC1414      | Automotive charger DC1822 | Drill bits for masonry |
| Battery 1222 | Battery 1235F | Charger DC1804      | Drill bits for wood       | Driver bits            |
| Battery 1234 | Battery PA12  | Fast charger DC1439 | Drill bits for steel      | TCT drill bits         |
| Battery 1235 |               |                     |                           |                        |

## ► Repair

**CAUTION: Remove the battery and the bit from the machine for safety before repair/ maintenance in accordance with the instruction manual!**

### [1] NECESSARY REPAIRING TOOLS

| Description    | Use for                           |
|----------------|-----------------------------------|
| Hex wrench 8   | Removing / Installing Drill chuck |
| Plastic hammer | Removing Drill chuck              |

### [2] LUBRICATIONS

The components of Gear ass'y has been lubricated in Makita plant and assembled under strict quality control. Therefore, it is recommended to replace Gear ass'y without disassembling in repair.

### [3] DISASSEMBLY/ASSEMBLY

#### [3]-1. Keyless Drill Chuck

**Note:** When replacing Gear ass'y, begin by removing Keyless drill chuck.

As long as the repairing does not concern Gear ass'y, it is not necessary to remove Keyless drill chuck.

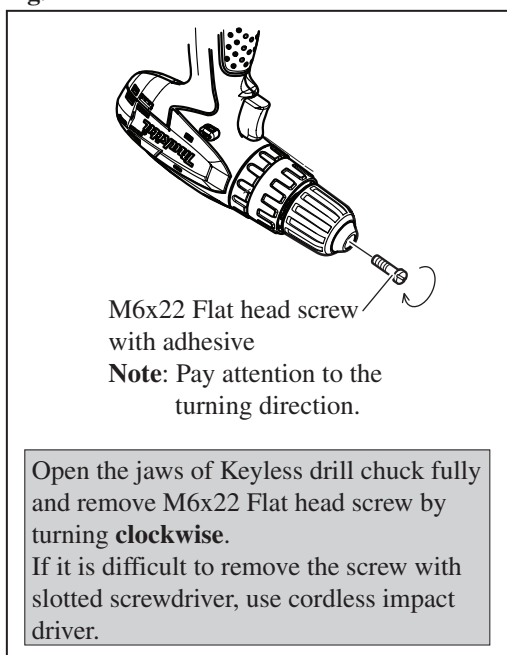
#### DISASSEMBLING

- (1) Remove M6x22 Flat head screw. (**Fig. 1**)
- (2) Preset the machine as illustrated in **Fig.2**.
- (3) Hold the machine firmly and pull the switch trigger slowly and carefully.

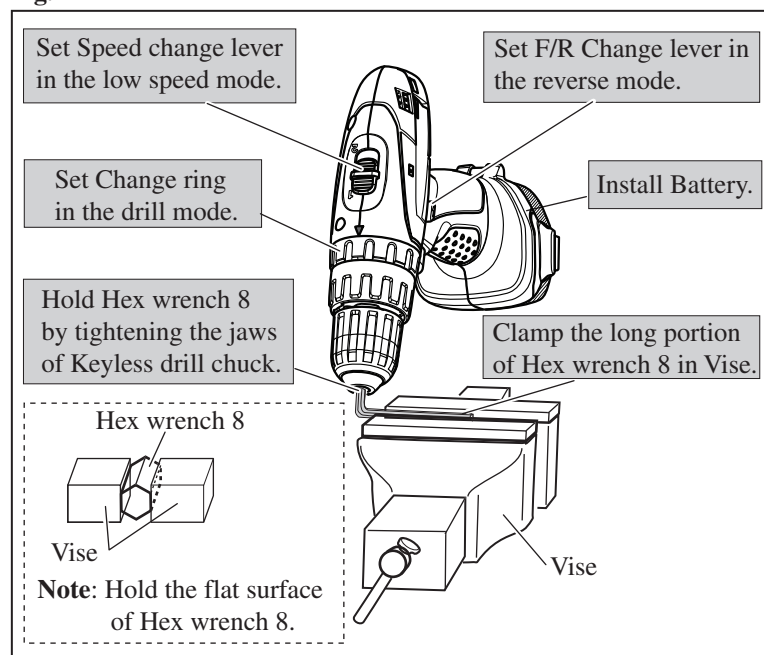
**Note:** 1) Pay attention that the machine except Keyless drill chuck starts revolving with strong force. Do not pinch your hand between the moved machine and Vise in this step.

- 2) If it is impossible to remove Keyless drill chuck, use 1R359 (Chuck removing tool) to remove it. Refer to Makita repair tool list.

**Fig. 1**



**Fig. 2**



#### ASSEMBLING

- 1) Turn Keyless drill chuck clockwise until it sits on the end of the threaded portion of Spindle.
- 2) Fix the short portion of Hex wrench 8 to Drill chuck, and clamp the long portion of Hex wrench 8 in Vise.
- 3) Set Speed change lever in the low speed mode and F/R change lever in the Forward (clockwise) rotation mode. Then Install Battery.
- 4) Hold the machine firmly and pull the switch trigger to rotate Spindle until the motor is locked.  
**Note:** Pull the switch trigger so that Spindle reaches full speed in one second.  
**Important:** Be sure to release the switch trigger just after Spindle is locked.
- 5) Secure Keyless drill chuck with M6x22 Flat head screw by turning **counterclockwise** with impact driver.  
**Note:** If you reuse the removed M6x22 Flat head screw, apply adhesive (ThreeBond 1321B/ 1342, Loctite 242) to the threaded portion. Makita genuine M6x22 Flat head screw for securing Keyless drill chuck is threadlocker screw.

► **Repair**

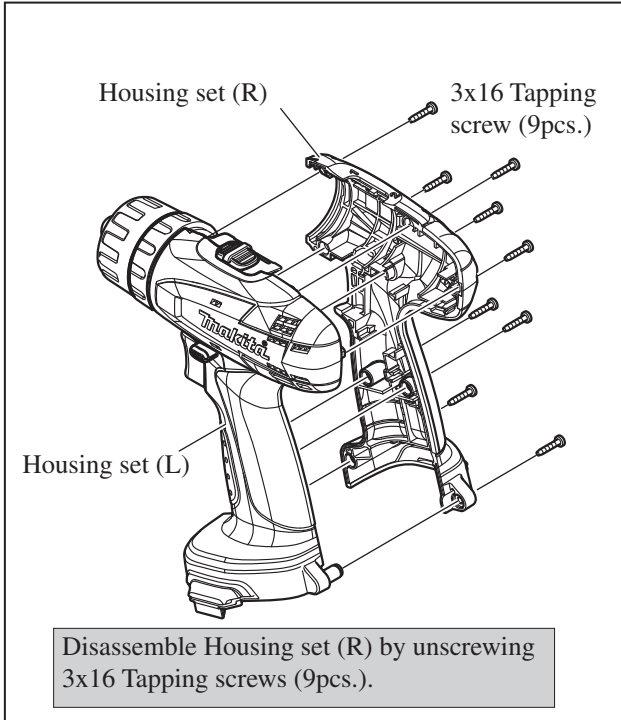
**[3] DISASSEMBLY/ASSEMBLY**

**[3]-2. Gear Ass'y, DC Motor**

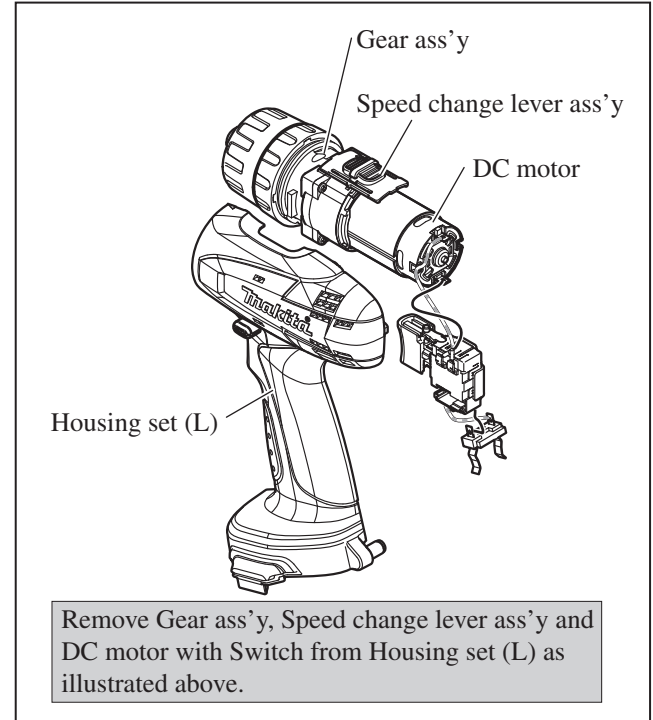
**DISASSEMBLING**

- (1) Remove Keyless drill chuck.
- (2) Gear ass'y and DC Motor can be disassembled in the order of **Figs. 3, 4, 5, 6 and 7.**

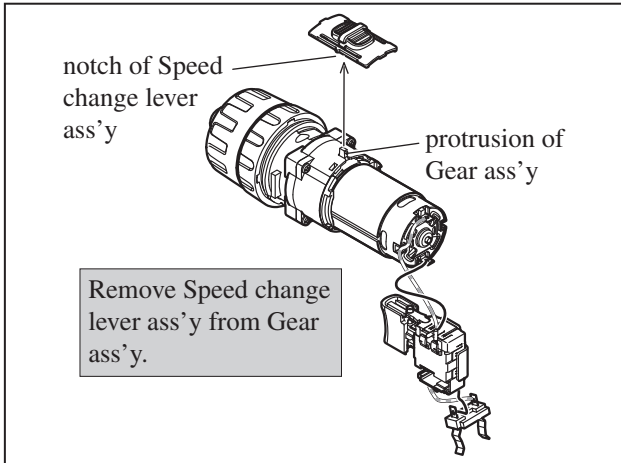
**Fig. 3**



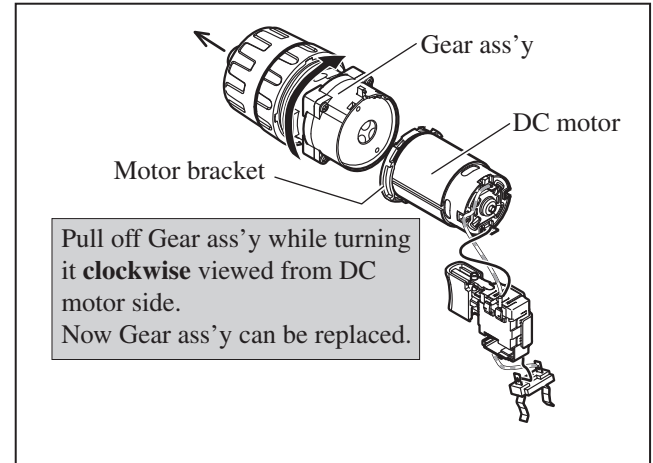
**Fig. 4**



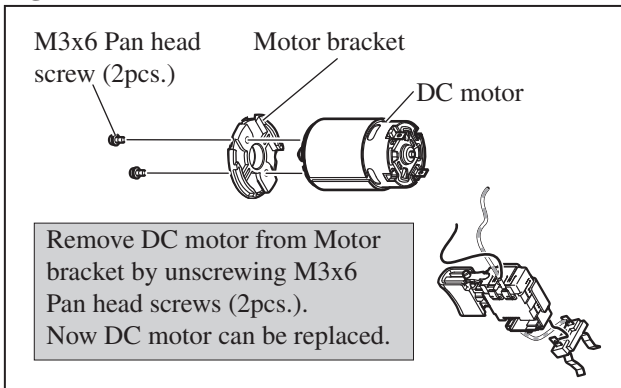
**Fig. 5**



**Fig. 6**



**Fig. 7**



## ► Repair

### [3] DISASSEMBLY/ASSEMBLY

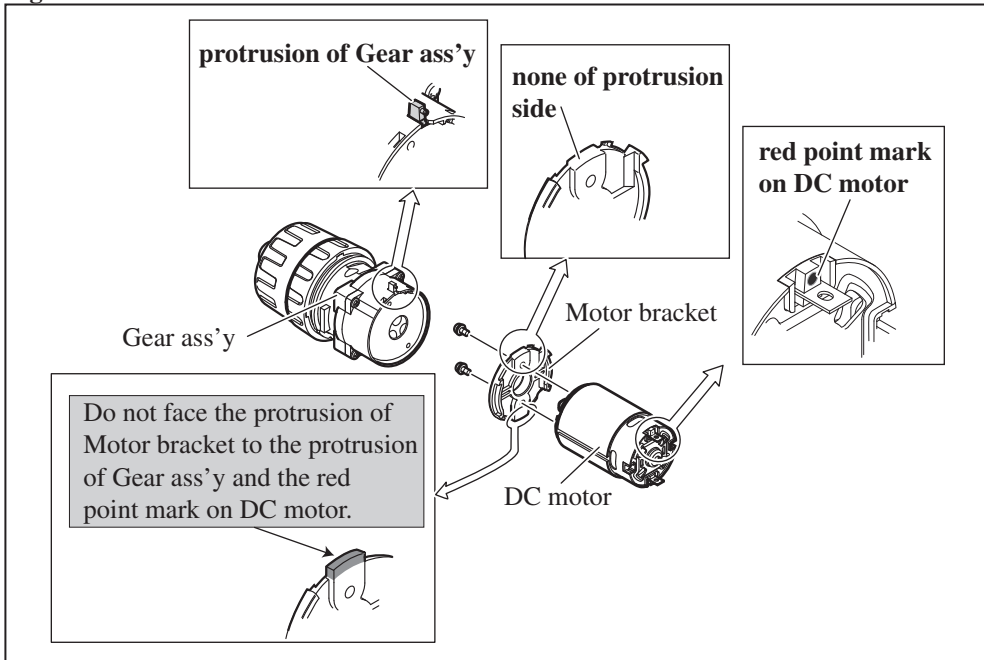
#### [3]-2. Gear Assembly, DC Motor

##### ASSEMBLING

The following portions of DC motor, Motor bracket and Gear ass'y have to face the same side. (Fig. 8)

- \* Red point mark (designated as plus terminal) on DC Motor
- \* None of protrusion side of Motor bracket
- \* Gear assembly's protrusion

Fig. 8



#### [3]-3. Speed Change Lever

##### ASSEMBLY

- (1) When assembling Speed change lever ass'y, make sure two Compression springs are assembled to its bottom in advance. (Fig. 9)
- (2) Fit the protrusion of Gear ass'y into Compression spring 4 in Speed change lever ass'y. (Fig. 10)
- (3) After mounting, set Speed change lever ass'y to low speed mode or high speed mode. (Fig. 11)

Fig. 9

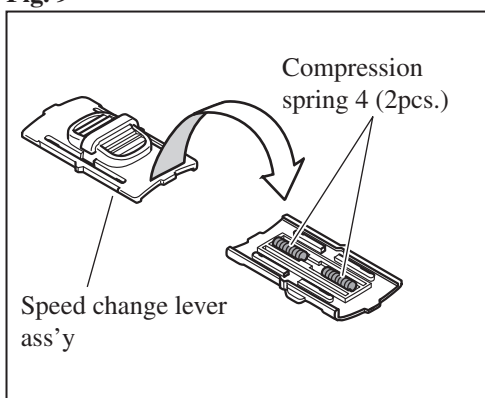


Fig. 10

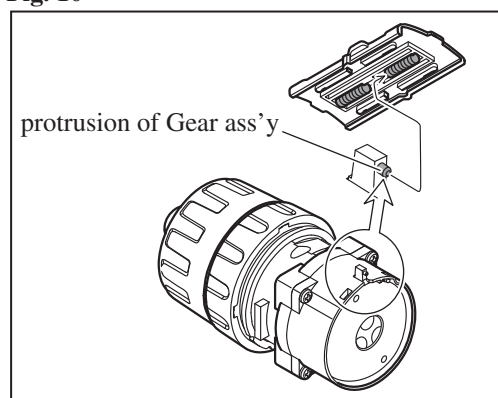
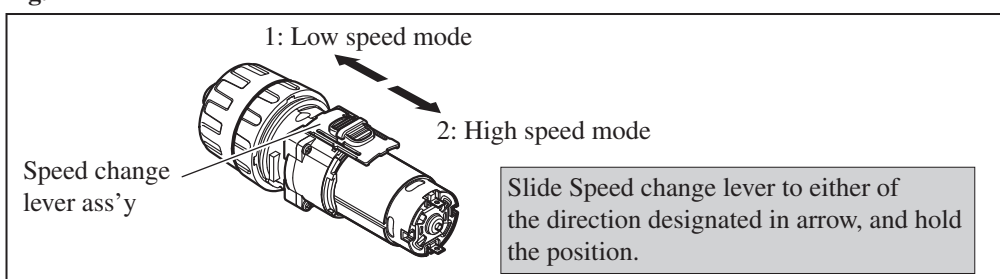


Fig. 11



► **Repair**

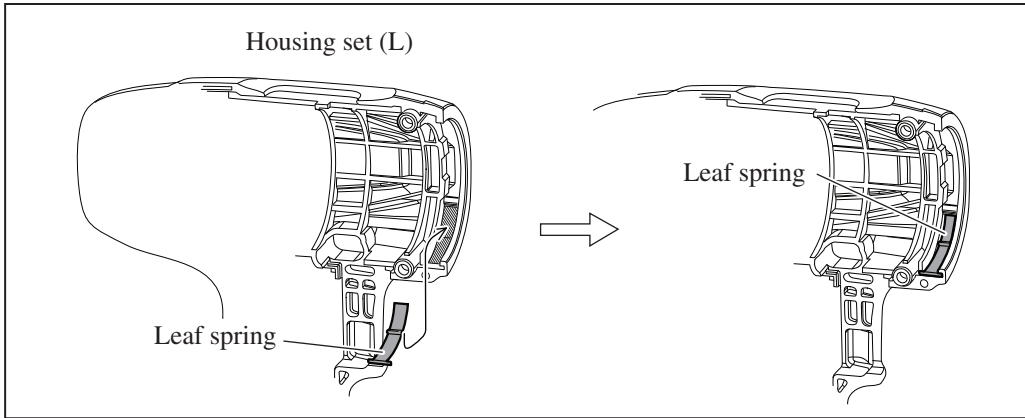
**[3] DISASSEMBLY/ASSEMBLY**

**[3]-4. Leaf Spring**

ASSEMBLING

Before assembling Gear ass’y and DC motor, Leaf spring has to be mounted to Housing set (L) as illustrated in **Fig. 12**.

**Fig. 12**

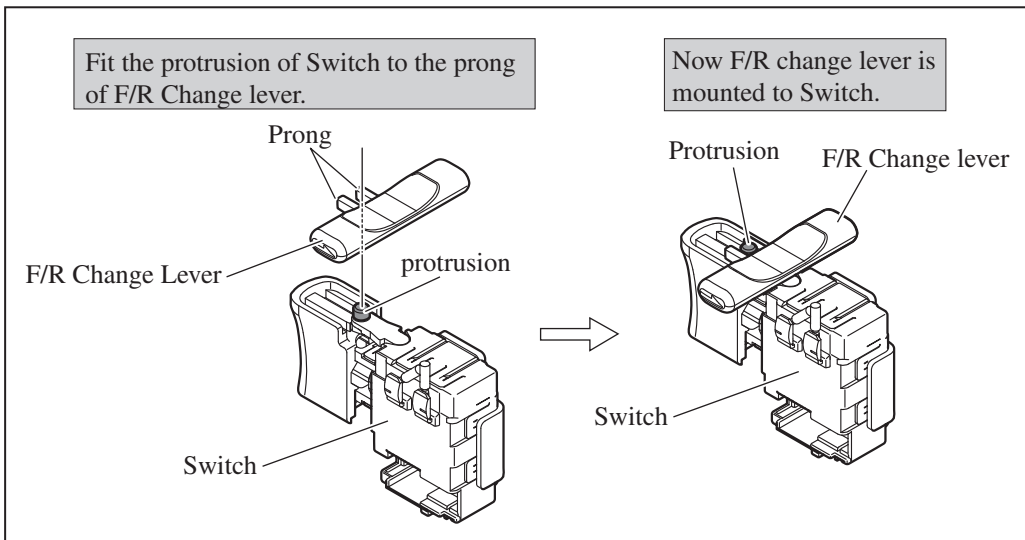


**[3]-5. F/R Change Lever**

ASSEMBLING

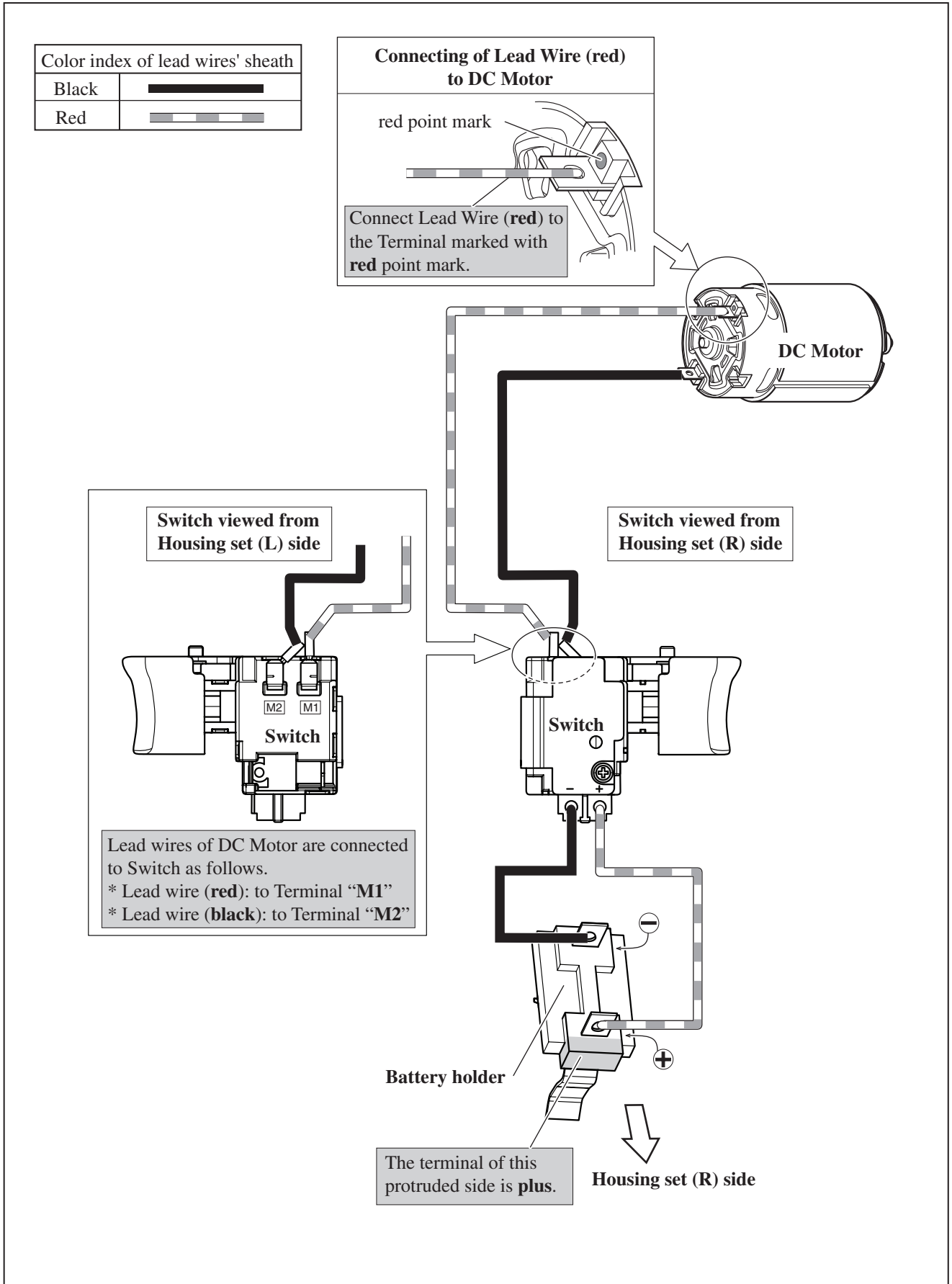
F/R Change lever can be assembled to Switch as illustrated in **Fig. 13**.

**Fig. 13**



► **Circuit diagram**

**Fig. D-1**



# ▶ Wiring diagram

Fig. D-2

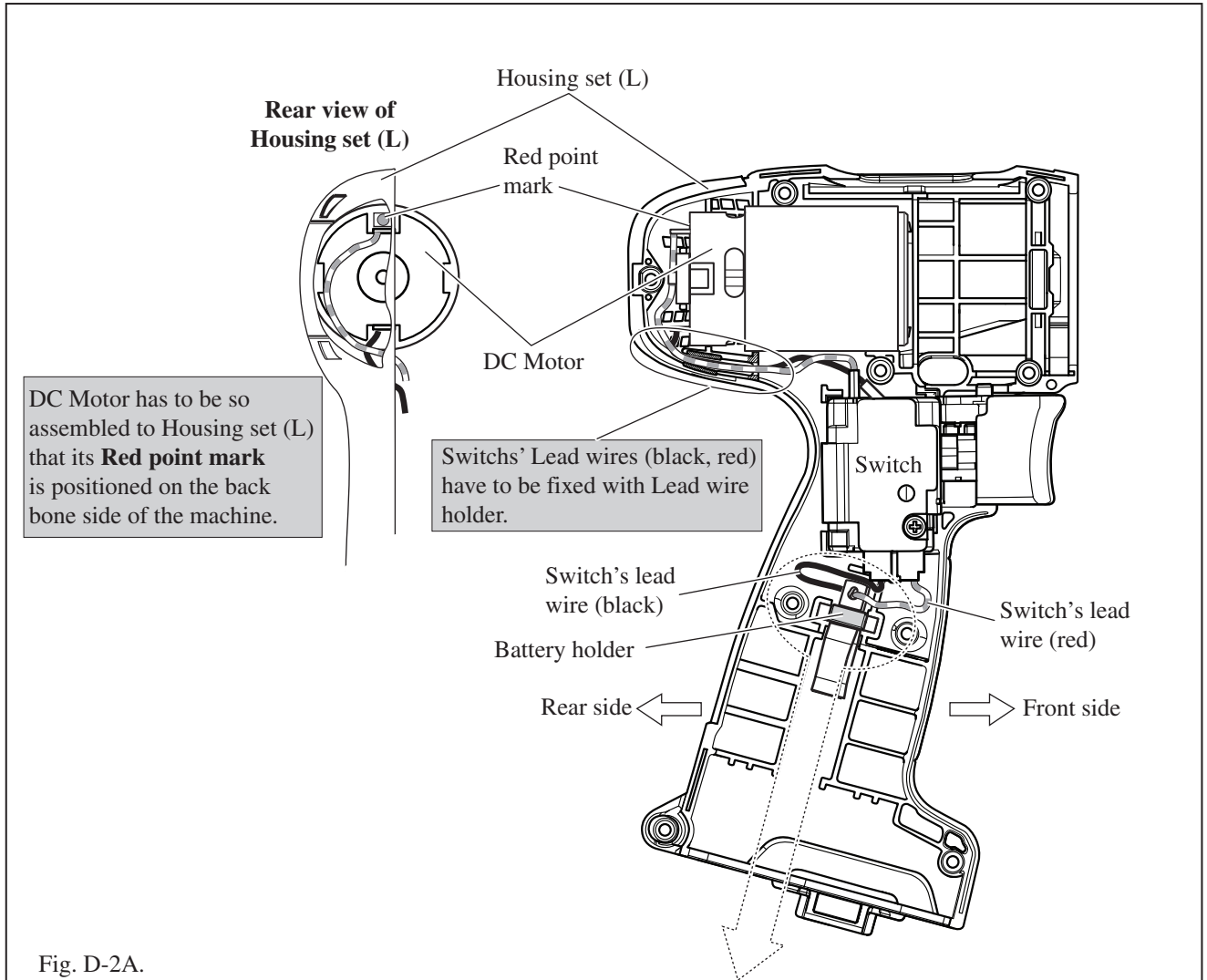


Fig. D-2A.

