



# MODEL DV 10DV

## 1. REFERENCE MATERIAL:

### 1-1. Speed Control Mechanism:

Spindle rotation speed can be controlled by simply varying the amount by which the trigger switch is depressed. The relationship between the amount the switch trigger is depressed (in millimeters) and the rotation speed is illustrated in Fig. 2.

Note: The gradient and values illustrated in Fig. 2 are intended for reference only, and will vary slightly due to differences in the discharge condition of the battery, the ambient temperature, and individual speed-control element accuracy.

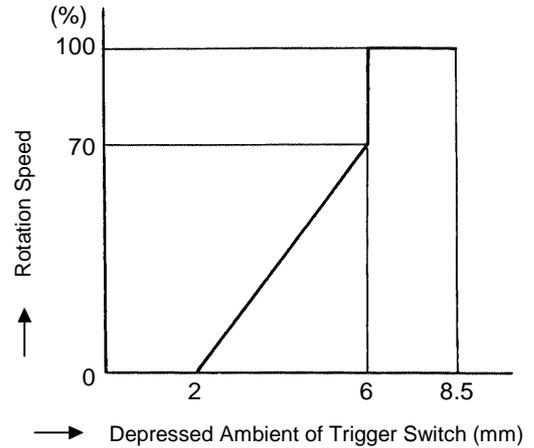


Fig. 2

## 2. MAINTENANCE GUIDE:

### 2-1. Precaution Prior to Maintenance:

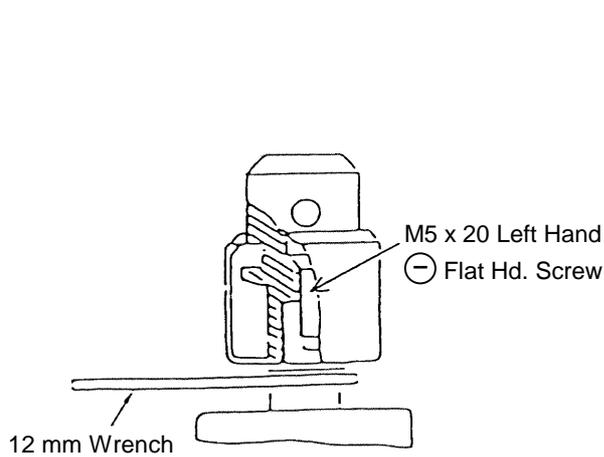
Without fail, remove the Model EB 12 Storage battery from the main body of the tool before starting maintenance work. Because the tool is cordless, if the battery is left in and the switch is activated inadvertently, the motor will start rotation unexpectedly, resulting in serious hazard.

### 2-2. Directions and Suggestions for Disassembly and Assembly of the Main Body (DV 10DV) :

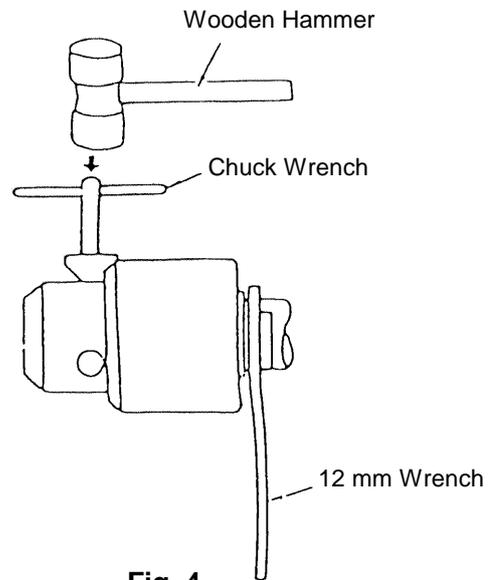
The circled numbers in the descriptions below correspond to the item numbers in Model DV 10DV Parts List.

#### 2-2-1. Disassembly:

- (1) Removal of the Chuck Wrench (17) :  
Pull out and remove the Chuck Wrench (17) from the main body.
- (2) Removal of the Hook (29) :  
Place your fingers inside the Hook (29), and expand it outward enough so that it can be removed from the main body.
- (3) Disassembly of Housing (B) :  
Loosen the seven D4 x 20 Tapping Screws (19) which fix the main body, and remove Housing (B) from Housing (A).
- (4) Removal of built-in Parts:  
After Housing (B) has been removed, the built-in parts may be removed either together in an assembled state, or separated and removed individually.
- (5) Disassembly of the Drill Chuck (2) (See Fig. 3 and Fig. 4) :  
When disassembling the Drill Chuck (2) from the Spindle (3), first fully open the three jaws of the Drill Chuck (2). Next, apply a 12 mm Wrench to the flat surfaces on the Spindle (3) to hold it steady, and loosen the M5 x 20 (1) Flat Hd. Screw (Left Hand Threaded) (1) by turning it clockwise with a minus screwdriver (See Fig. 3).  
Then, after removing the M5 x 20 (1) Flat Hd. Screw (1), insert the Chuck Wrench (17) or an appropriate 6 mm dia. steel rod into one of the three holes of Drill Chuck (2), and tap it lightly with a wooden hammer to loosen and remove the Drill Chuck from the Spindle (3) (See Fig. 4).



**Fig. 3**



**Fig. 4**

**(6) Disassembly of the Motor, Switch and Fin:**

After Housing (B) has been removed, the Motor (15), Switch (26), and Fin (32) can be taken out in a single body. They can then be separated by the following procedures :

A. The leadwires of the Motor (15) can be extracted from the terminals of the Switch 26 by inserting a J-86 pin (Special Repair Tool, Code No. 970828) into the holes provided on the terminals and bending the leaf spring away from the inner walls of the terminal connectors for the right/left changeover portions.

B. Remove the M3 x 12 Machine Screw (33) which fixes the FET (Field Effect Transistor) of the Switch (26) to the Fin (32), and remove the Fin (32).

[NOTE] The leadwires from the FET and the Terminals (a total of six leadwires) are permanently connected to the Switch (26). Accordingly, those components can not be disassembled.

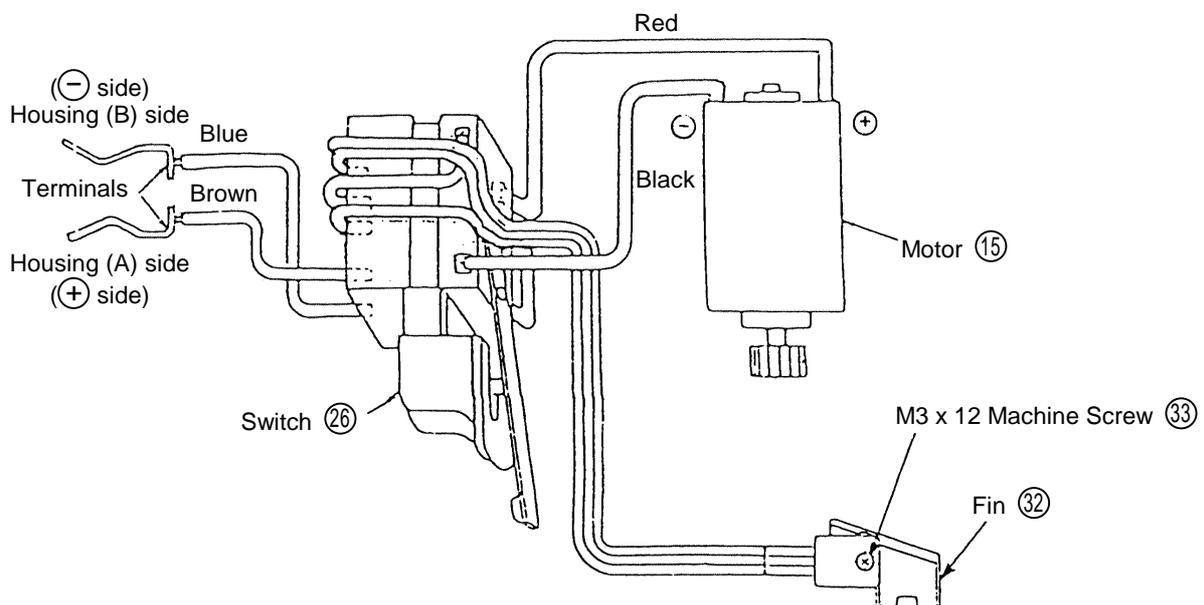
**CAUTION:**

Be very careful not to bent the leaf spring excessively. If bent excessively, the leaf spring connectors may become permanently deformed and lose their resiliency.

**2-2-2. Reassembly:**

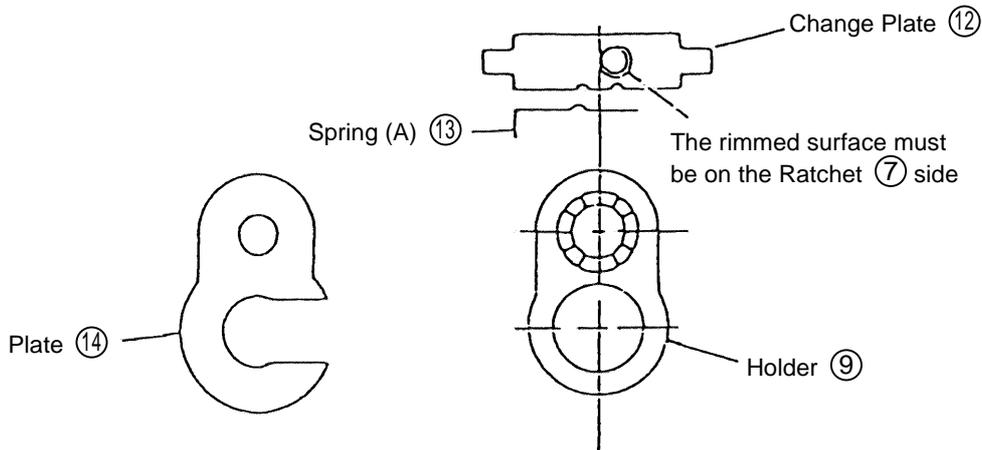
Reassembly can be accomplished by following the disassembly procedures in reverse. However, special attention should be given to the following items.

(1) Ensure the wiring is connected in accordance with the leadwire arrangement in Fig. 5.



**Fig. 5 Leadwire Arrangement of Main Body**

- (2) Confirm that the Seal ⑳ is properly mounted on the Switch ㉔.
- (3) When reassembling the Terminals and Motor ㉑ into Housing (A), be careful of the polarity (see Fig. 5).
- (4) Reassembly of the Holder Ass'y Section:  
When reassembling the Change Plate ㉒, Spring (A) ㉓, and Plate ㉔ in the Holder ㉑ be very careful to ensure that each part is properly aligned (see Fig. 6).



**Fig. 6 Change Plate, etc. Alignment  
(Seen from Spindle side)**

- (5) When mounting the Drill Chuck ㉒ onto the Spindle ㉓, reassembly can be accomplished by following the disassembly procedures in reverse.  
Rated Tightening Torque of the Drill Chuck is 130 - 170 kgf-cm (113 - 148 lb-in).
- (6) On completion of assembly, confirm without fail that the Spindle rotation conforms to the (R) and (L) settings of the rotation direction changeover lever on the Switch ㉔. when the lever is set to the (R) setting, the Drill Chuck ㉒ must rotate to the right (clockwise) when viewed from the handle end of the tool. Also, confirm that the Spindle can be rotated easily and smoothly when the Drill Chuck ㉒ is rotated by hand.
- (7) Tighten each fastening screw with the appropriate tightening torque as indicated below:
  - D4 x 20 Tapping Screw ㉑ ..... 15 - 25 kgf-cm (13.0 - 21.7 lb-in)
  - Flat Hd. Screw ㉒ ..... 30 - 37 kgf-cm (26.0 - 32.1 lb-in)
  - M3 x 12 Machine Screw ㉓ ..... 3 - 5 kgf-cm (2.6 - 4.3 lb-in)

**2-3. Directions and Precautions for Disassembly and Reassembly of the Model UC 12Y Charger:**  
Concerning the disassembly, reassembly and precautions in use of the Model UC 12Y Charger, please refer to the Technical Data and Service Manual for the Model UC 12Y.