



MODEL

WH 8DC2

1. REPAIRE GUIDE:

WARNING:

Without fail, remove the Model EB 9 Storage Battery from the main body before starting repair or maintenance work. Because the tool is cordless, if the battery is left in and the switch is activated inadvertently, the motor will start rotating unexpectedly, which could cause serious injury.

Precautions in Disassembly and Reassembly:

The circled numbers in the descriptions below correspond to the item numbers in the Parts List, Figures and exploded assembly diagram.

1-1. Disassembly:

(1) Disassembly of Housing Assembly.

Remove nine Flanged Tapping Screws, D4 x 20 [26]. Then, insert a cutter blade into the gap between the mating faces of Housings (A) and (B), cut the Grip Tape [39], and remove Housing (B). At this time, the Strap [34] can also be removed. When cutting the Grip Tape [39], raise and open Housing (A) a little with Housing (B) fixed and use the gap as a guide for the cutter for easier separation of the two halves.

Figure viewed from the rear of the body

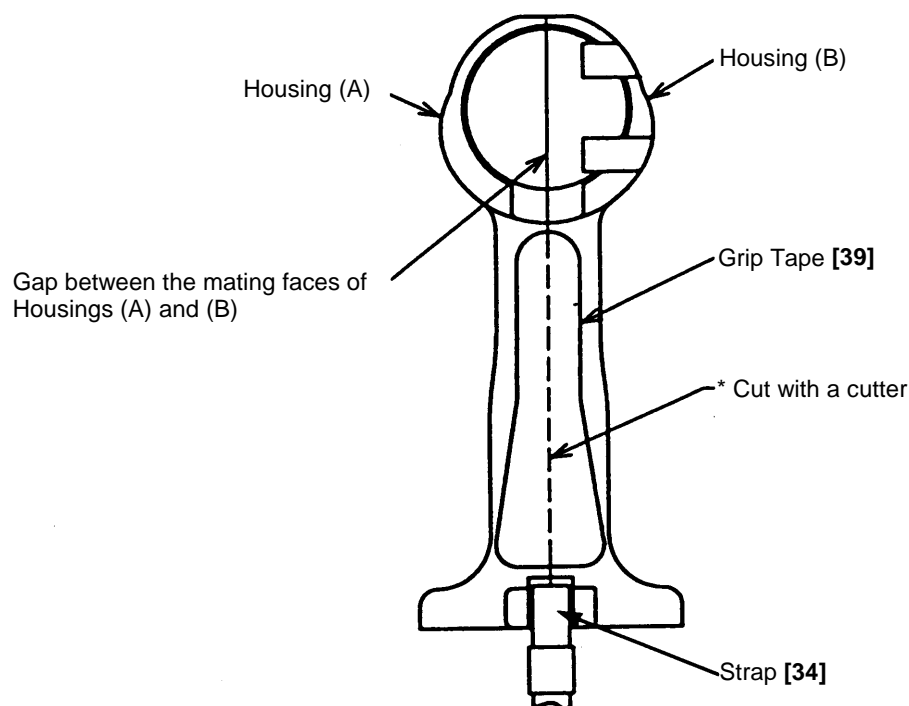


Fig. 1

(2) When Housing (B) is removed and the whole of the body is raised from Housing (A) with the Motor [25] and Anvil (H) [10] held, the body can be divided into three groups, the subassembly of Anvil (H) [10], the subassembly of the Hammer [12] and Spindle [18], and the subassembly of the Motor [25] and the Switch [31].

(3) Disassembly of the Switch Subassembly

- To remove the lead wires (red and black) of the Motor [25] from the Variable Speed Trigger Switch [31], remove the two Machine Screws (with SP. Washer) M3 x 5 [30], which hold down the terminal.
- When the Machine screw (with SP. Washer) M3.5 x 6 [38] is removed, the Fin [33] can be removed from the FET of the Variable Speed Trigger Switch [31].

(Note) Three FET lead wires are soldered to the Variable Speed Trigger Switch [31] and should not be detached.

(4) Removal of the Spring [15]

With a hand press, gently push down on either of the raised faces of the Hammer [12] to compress the Spring [15] and simultaneously press the Stopper (A) [16] (a rubber component) against the end surface of the Hammer [12]. In this position, as illustrated in Fig. 2, extract the two Steel Balls (5.556 mm dia.) [11] from the cam grooves with a small slotted (flat-blade) screwdriver or similar tool. Then, slowly release the hand press and lift the Hammer [12] and Washer (G) [14] together to extract them from the Spindle [18]. The Spring [15] can then be removed.

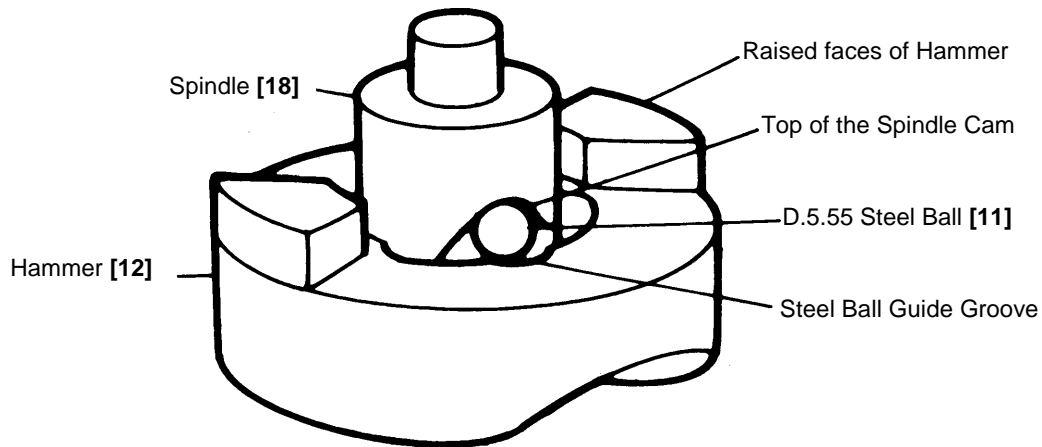


Fig. 2

(5) Disassembly of Guide Sleeve (A) [4]

By following the procedures shown below, you can disassemble the Retaining Ring [1], Retainer [2], the Guide Spring [3], Guide Sleeve (A) [4], the Oil Seal [5], the Metal [6], the Rubber Washer [7], and Washer (F) [8] in this order. Do not lose the two Steel Balls (3.175 mm dia.) [9] in the holes in Anvil (H) [10].

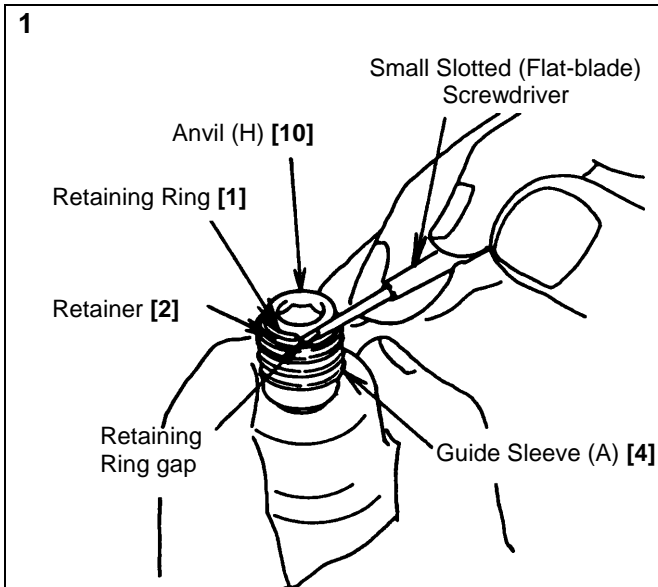


Fig. 3-1

Hold the body and place a small slotted (flat-blade) screwdriver at an angle to the Retainer and Retaining Ring at the Retaining Ring gap.

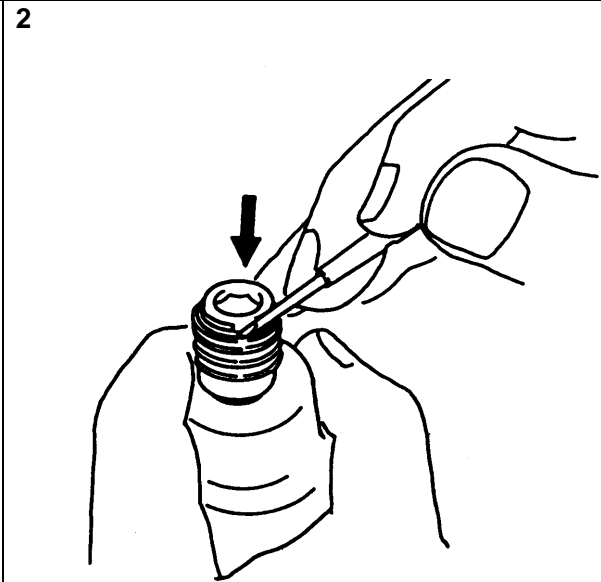


Fig. 3-2

Press down on the Retainer and Retainer Ring with the screwdriver at the same angle.

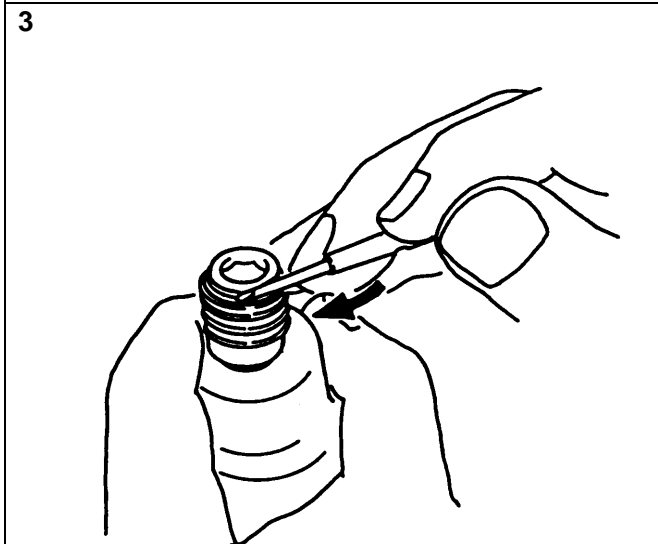


Fig. 3-3

Next, slide the screwdriver into the gap and under one side of the Retaining Ring.

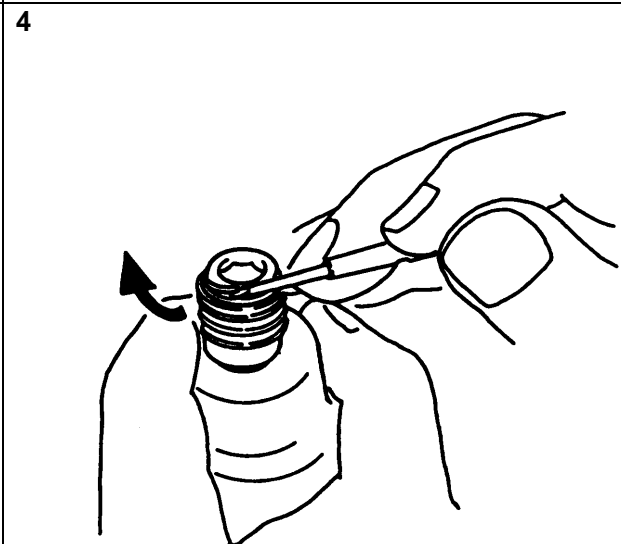


Fig. 3-4

Slowly raise the Retaining Ring using the end face of the Guide Sleeve as a fulcrum.

Continue to raise the Retaining Ring slowly with the screwdriver until it is free. The Guide Sleeve (A) [4] can now be removed. Avoid quickly prying off the Retaining Ring or it may fly out forcefully. Use caution.

1-2. Reassembly:

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

(1) Anvil Section:

(A) Insert Washer (F) [8] onto Anvil (H) [10] so that the chamfered side of the bore of Washer (F) [8] is facing toward the winged portion of Anvil (H) [10].

(B) Mount the Rubber Washer [7] and the Metal [6] onto Anvil (H) [10]. Then, as illustrated in Fig. 4, mount the Oil Seal [5] as indicated so that there will be no grease leakage.

(C) Insert the two Steel Balls (3.175 mm dia.) [9] into the holes in Anvil (H) [10] (Liberally filling the holes with grease will keep the balls in place.) Then mount the Guide Sleeve (A) [4], the Guide Spring [3], and the Retainer [2] in sequence. Finally, press on the Retaining Ring [1] so that it is properly seated in the groove on Anvil (H) [10].

Note: When assembling the Retainer [2], orient the roughened end toward the tip of Anvil (H) [10].

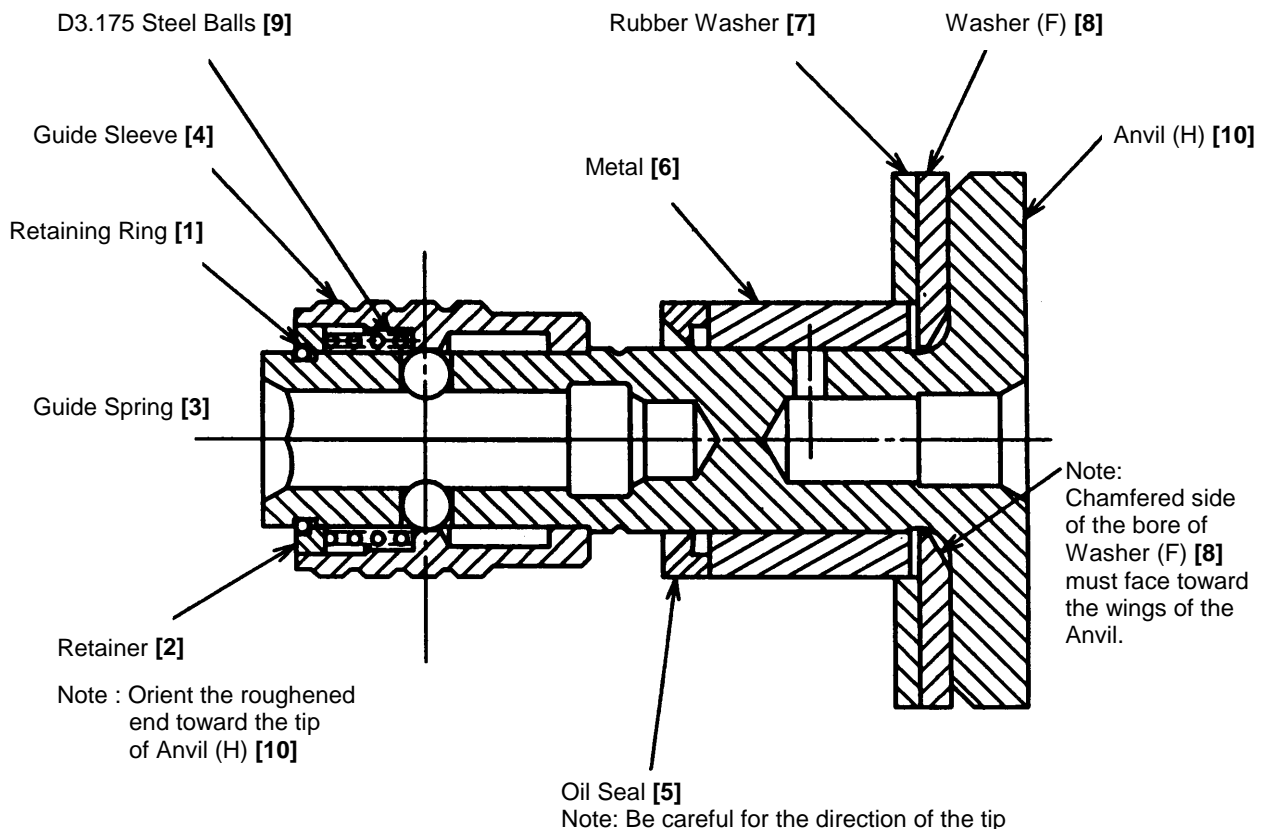


Fig. 4

(2) Assembly of Mechanical Parts

- (A) Insert Washer (H) [17] onto the Spindle [18] from the top, fit Stopper (A) [16] in the groove of the Spindle [18], insert the Spring [15], and fit the Hammer [12], containing the twenty-one Steel Balls (3.97 mm dia.) [13] and the Washer (G) [14] together on the Spindle [18].
- (B) As illustrated in Fig. 2, align the crest of the cam groove on the Spindle and the Steel Ball inserting groove on the Hammer, and press down the top portion of the Hammer with a hand press while simultaneously pressing the outer surface of the Hammer with the Stopper (A) until the Hammer end surface contacts the Spindle.
- (C) Insert the two D5.556 Steel Balls [11] into the grooves as indicated in Fig. 2. Then, after confirming that the Steel Balls are properly inserted, gently release the hand press.

(3) Wire Connections

- (A) Be sure to follow proper wiring procedures according to the schematics. (see Fig. 5-1, 5-2)
- (B) When mounting the Motor [25] lead wires to the Variable Speed Trigger Switch [31], tightly fasten them with the Machine Screws (with SP. Washer) M3 x 5 [30] paying close attention to the direction (refer to Fig. 5-1) of the tab on the terminal. Clamp the Fin [33] to the FET of the Variable Speed Trigger Switch [31] using the Machine Screws (with SP. Washer) M3.5 x 6 [38].

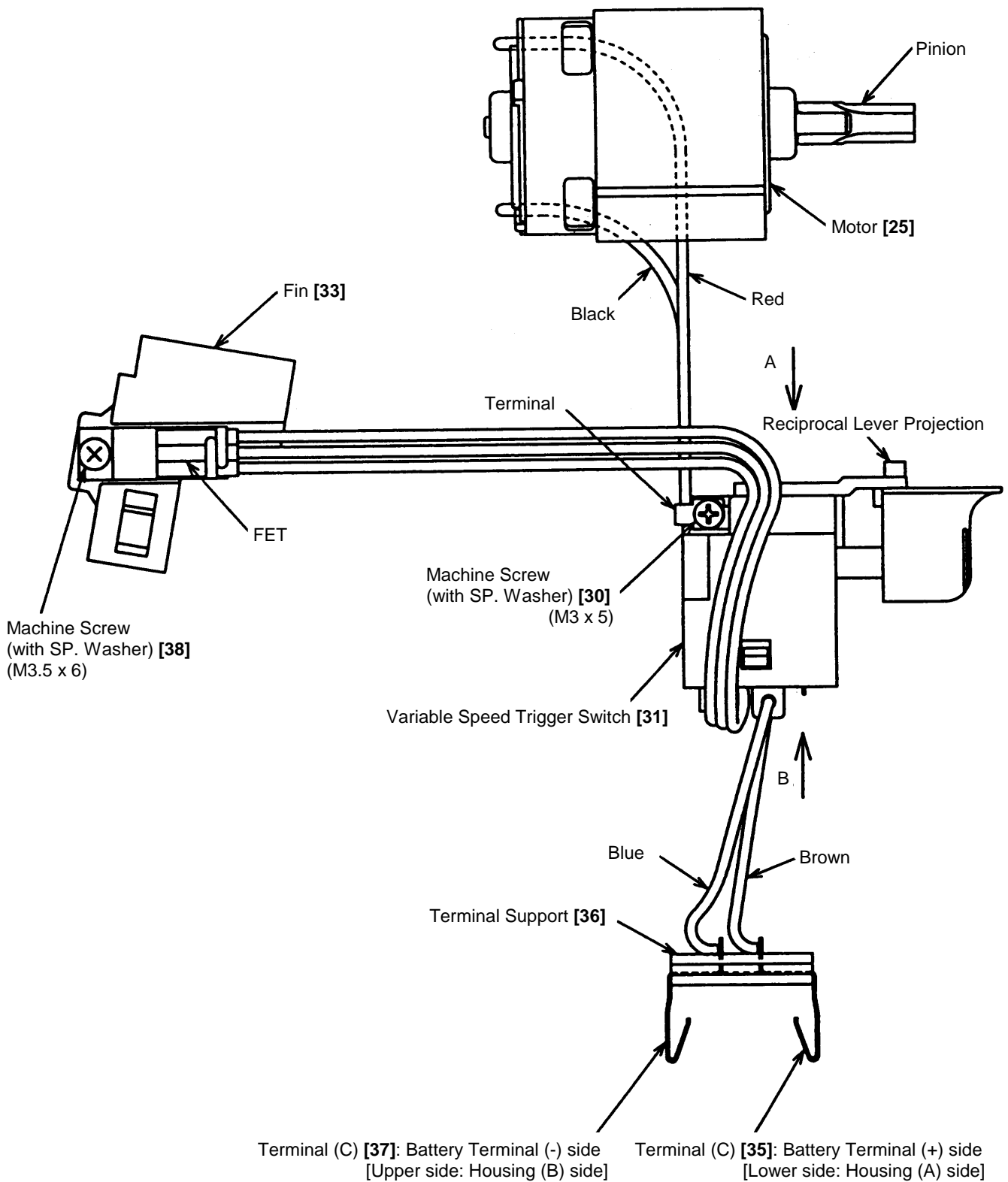
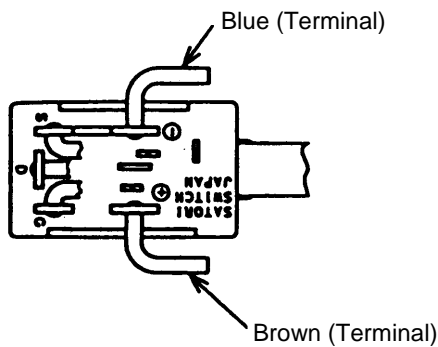
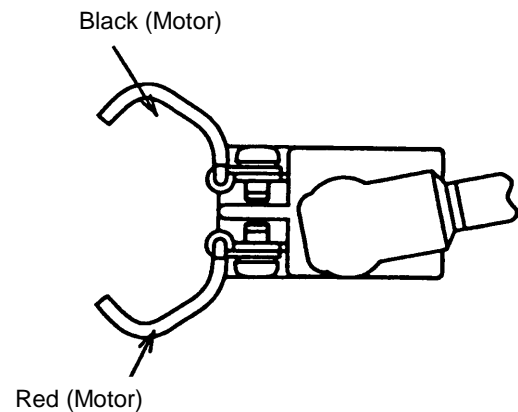


Fig. 5-1

Lead Wire Mounting Position Viewed from B



Lead Wire Mounting Position Viewed from A



(4) Assembling Mechanical Parts in Housing (A)

(A) Mount the Damper [24] and Inner Cover [23] on the Motor [25].

In the next step, assemble mechanical parts in the Inner Cover [23].

(Note) Correctly mesh the gears of the gear section of the Inner Cover [23], Idle Gear [19], and the pinion of the Motor with each other.

Engage Anvil (H) [10] with the Spindle [18].

(B) Install the assembled mechanical parts into Housing (A), holding the rear section of the Motor [25] and the head section of Anvil (H) [10]. In installing, confirm the following points:

- (a) The projection for preventing the rotation of the Inner Cover [23], the groove section of Housing (A), and the Oil Seal [5] are properly fitted in the groove of the Housing (A).
- (b) The groove section for preventing the rotation of the motor case is aligned with the projection of Housing (A).
- (c) The lead wires (red and black) are threaded under the Motor and are not caught in the Motor.
- (d) The Variable Speed Trigger Switch [31] is assembled in Housing (A), with the reciprocal lever projection above the Switch inserted in the U-like groove section of the Push button [32].

(Note) Install the Push button [32] in Housing (A) with the rib side placed on the switch side.

(e) The Fin [33] is correctly positioned on the lower side of the outer periphery of the Motor [25] and is not floating.

(Note) The three lead wires from the FET are threaded above the Variable Speed Trigger Switch [31].

(f) The Terminal Support [36] is assembled in Housing (A) so that the blue lead wire runs above the brown one.

(5) Mounting Housing (B)

Fit a hexagon socket onto Anvil (H) [10] and ensure that it rotates properly. If it will not rotate, the gear teeth are improperly meshing must be reassembled correctly.

(6) Check whether the direction of rotation of Anvil (H) [10] and the directional markings on the push-On side of the Push button [32] coincide. When the Push button [32] is turned to the (R) side, the direction of rotation of Anvil (H) [10] should be clockwise, as seen from behind.

(7) Parts to Which Grease Must Be Applied.

(A) ATTOLUB MS No. 2 (Code No. 30992) is recommended.

The cam groove of the Spindle [18], the cam groove of the Hammer [12], the sliding section of the Hammer and Spindle, the 6 mm diameter hole of Anvil (H) [10], sliding section of Anvil (H) and the Metal [6], the two Steel Balls (5.55 mm dia.) [11], the pinion tooth flanks of the Motor [25], the Inner Cover, gear tooth flanks, and the twenty-one Steel Balls (3.969 mm dia.) [13].

(B) Nippeko SEP-3A (Code No. 930035) is recommended.

The two Steel Balls (3.175 mm dia.) [9], the sliding section of Anvil (H) [10] and the Guide Sleeve (A) [4].

(8) Screw Tightening Torques:

D4 x 20 Tapping Screws..... 20 ± 5 kgf·cm [1.96 ± 0.49 N·m] (1.45 ± 0.36 ft·lb)

M3.5 x 6 Machine Screws..... 3 - 4 kgf·cm [0.294-0.392 N·m] (0.22 - 0.29 ft·lb)

M3 x 5 Machine Screws..... 3 - 4 kgf·cm [0.294-0.392 N·m] (0.22 - 0.29 ft·lb)

1-3. Precautions on Disassembly and Reassembly of the Model UC12Y Charger:

For details concerning the disassembly, reassembly and precautions in use of the Model UC12Y Charger, please refer to the Technical Data and Service Manual (No. E830) for the Model UC12Y Charger.

2. STANDARD REPAIR TIME (UNIT) SCHEDULES

Model	Variable Fixed	10	20	30	40	50	60
WH 8DC2	<div>General Assembly</div> <div>• Fixed Cost 20 min.</div>	• Work Flow					
			<div>• Housing (A), (B) Set</div> <div>• Motor</div> <div>• Switch Assembly</div> <div>• Terminal x 2 pcs.</div>	<div>• Retaining Ring</div> <div>• Guide Sleeve</div> <div>• Guide Spring</div> <div>• Oil Seal</div> <div>• Metal</div> <div>• Rubber Washer</div> <div>• Washer (F)</div> <div>• Anvil (H)</div>	<div>• Hammer</div> <div>• Washer (G)</div> <div>• Spring</div> <div>• Stopper (A)</div> <div>• Washer (H)</div>	<div>• Spindle</div> <div>• Idle Gear x 2 pcs.</div> <div>• Needle Roller x 2 pcs.</div> <div>• Inner Cover</div> <div>• Ball Bearing (6001 VVCM)</div>	