



MODELS G 18U/G 18UA/G 18UB/G 23U/G 23UA/G 23UB

1. PRECAUTIONS IN DISASSEMBLY AND REASSEMBLY:

The disassembly and reassembly procedures for all of the new models are essentially the same as the old models. Model G 23UA procedures are described below as an example. The circled numbers in the descriptions below correspond to the item numbers in the Parts List and exploded assembly diagram for Model G23 UA.

1-1. Disassembly of the Armature Ass'y:

(1) Loosen the M8 x 22 Bolt (s) (32) and remove the Wheel Guard Ass'y (33). Then, remove the two Brush Caps (48) and take out the Carbon Brushes (49).

(2) Remove the four D5 x 35 Tapping Screws (5).

The Armature Ass'y (16) can then be taken out simultaneously with the Gear Cover Ass'y (6), packing Gland (30), and related parts.

(3) Remove the four M5 x 16 Hexagon Socket Hd. Bolts (31).

The Packing Gland (30) can then be taken out together with the Spindle (26) and Gear (21).

(4) After removing the three M5 x 14 Machine Screws (1), the Armature (16) can be extracted together with the Bearing Cover (14), and related parts.

(5) Carefully wrap the Armature Ass'y (16) with a soft, clean rag to protect it from being damaged, and clamp it securely in a vise. Then, remove the M8 U-Nut (7), and extract the Pinion (8) and the Key (15).

(6) For the models indicated under Fig. 1, the Ball Bearing (11) can be removed from the Armature (16) by utilizing a J-166 Bearing Puller (special repair tool Code No. 970-947) as illustrated. After the Ball Bearing has been removed, the Bearing Cover (14) can be easily taken off.

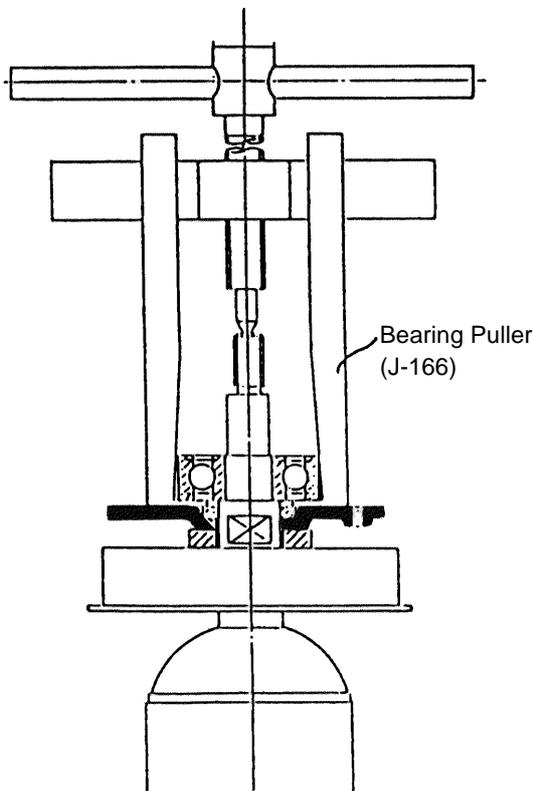


Fig. 1

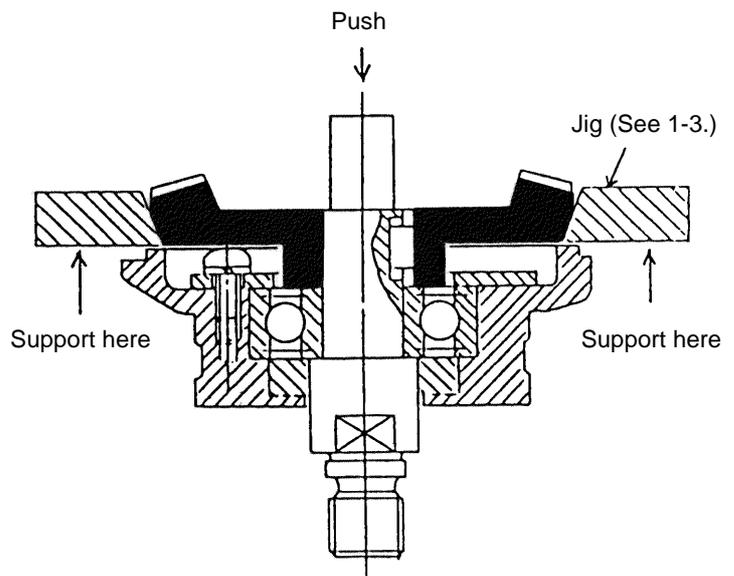


Fig. 2

1-2. Disassembly of the Stator Ass'y:

- (1) After taking out the Armature Ass'y (16), loosen the four D5 x 25 Tapping Screws (60), and the two D4 x 25 Tapping Screws (59) and remove the Handle (61).
- (2) Disconnect the lead wires of the Stator Ass'y (39) from the Trigger Switch (55). Then, disconnect the lead wires of the Noise Suppressor (52).
- (3) Disconnect the Brush Terminal Ass'ys (40) from the Brush Holders (50) and take out Rubber Ring (D) (46).
- (4) Finally, loosen the two D5 x 75 Hexagon Hd. Tapping Screws (38), and remove the Stator Ass'y (39) from the Housing Ass'y (41). If the Stator Ass'y (39) cannot be easily removed from the Housing Ass'y (41), disassembly can be facilitated by heating the Housing Ass'y to a temperature of approximately 60°C (140°F) with an appropriate heating device.

1-3. Disassembly of the Gear:

After the Packing Gland (30) has been removed from the Gear Cover Ass'y (6), support the Gear (21) with an appropriate jig (see below) and push down on the tip of the Spindle (26) with an arbor press as illustrated in Fig. 2 to separate the Gear.

Model names and appropriate jig numbers are indicated in the table below:

Model Name	Jig Number	Jig Code Number
G 18U, G 18UA, G 18UB	J-239	307-562
G 23U, G 23UA, G 23UB	J-238	307-561

1-4. Lubricant to be applied within the Gear Cover:

After disassembly, thoroughly remove all old grease from within the Gear Cover Ass'y (6), and insert new grease(Hitachi Genuine Grease, Nippeco JF-375 [lithium soup group], Code No. 930036, is recommended) prior to reassembly:

The appropriate amount of grease for each model is as follows:

Model Name	Grease Amount (g)
G 18U, G 18UA, G 18UB G 23U, G 23UA, G 23UB	35 g

1-5. Adhesive and Screw Locking Agent:

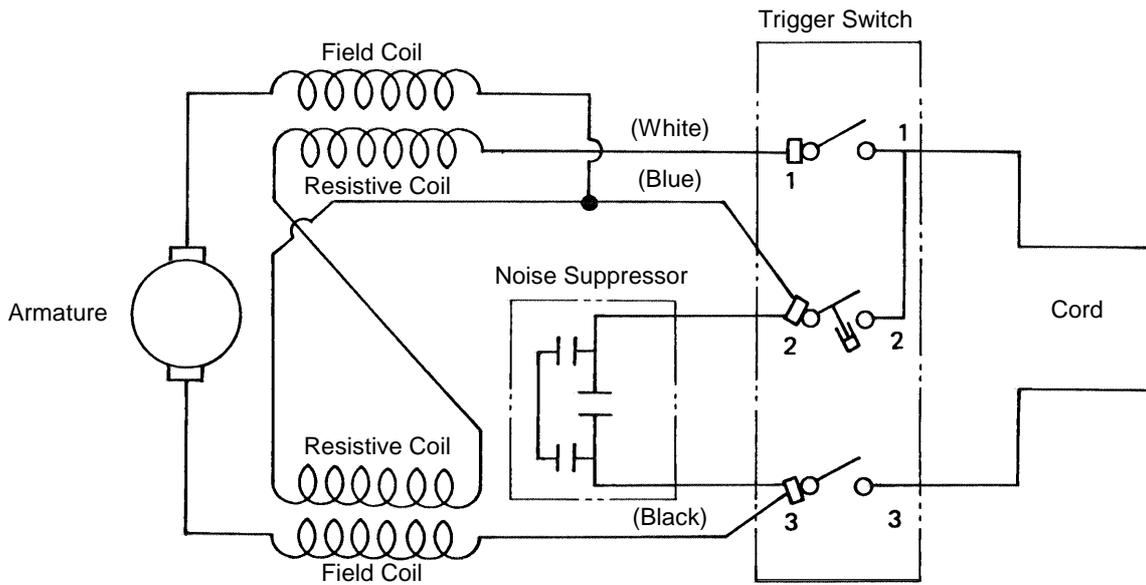
- (1) Apply Cemedine 1500 Adhesive between the Brush Holder chambers in the Housing Ass'y (41) and the Brush Holders (50).
- (2) Apply Three Bond TB1406 Screw Locking Agent to the following screws:
 - Four M5 x 16 Hexagon Socket Hd. Bolts (31) which fix the Packing Gland (30)
 - Three M5 x 10 Machine Screws (22) which fix Bearing Cover (B) (23).
 - Three M5 x 14 Machine Screws (1) which fix the Bearing Cover (14).

1-6. Tightening Torques of Screws/Bolts:

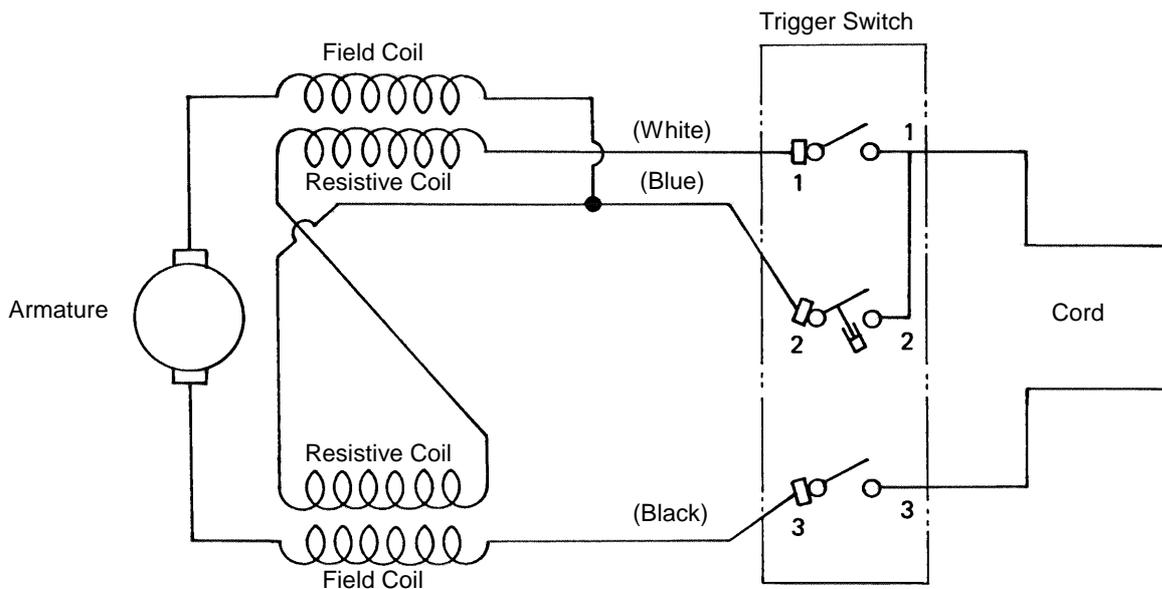
- D4 Tapping Screws 1.5 - 2.5 N·m (15 - 25 kgf·cm)
- D5 Tapping Screws and M5 Machine Screws 2.5 - 3.4 N·m (25 - 35 kgf·cm)
- M5 Hexagon Socket Hd. Bolts 6.4 - 9.3 N·m (65 - 95 kgf·cm)
- M8 U-Nut 11.8 - 15.7 N·m (120 - 160 kgf·cm)

1-7. Wiring Diagram:

For European countries and South Africa



For other countries:



1-8. Remaining Reassembly:

Remaining reassembly can be accomplished by following the disassembly procedures in reverse.

1-9. Insulation Tests:

On completion of disassembly and repair, carefully measure the insulation resistance, and conduct an insulation test (dielectric strength test).

Insulation Resistance: 7MΩ or more with 500V DC Megohm Tester.

Dielectric Strength: AC 4,000V/1 minute, with no abnormalities

1-10. Inspection Manual:

- No-load Current Value: After no-load operation for 30 minutes
- Backlash of Gear Value: Measured at outer circumference of Grinding Wheel.

No.	Model Name	Max. No-load current (A)		Max. Backlash of Gears (mm)
		Voltage (V) 230	Voltage (V) 240	
1	G 18U	3.2	3.1	2.5
2	G 23U			3.2
3	G 18UA	3.5	3.2	2.5
4	G 23UA			3.2
5	G 18UB			2.5
6	G 23UB			3.2

2. STANDARD REPAIR TIME (UNIT) SCHEDULE:

MODEL	(Unit)				
	Variable Fixed	10	20	30	40min
G 18U G 18UA G 18UB G 23U G 23UA G 23UB	Work Flow Repair Operations Fixed Time (unit) Switch : 0 Wheel Guard : 0 Handle (A) : 0 Handle (B) : 0 Cord Ass'y : 10 Others : 20				
	Gear Cover Rubber Ring Seal Packing (B) Thrust Washer (B) Handle (A) Switch Cord			Pinion BB (6301DDCM) Felt Packing (A) Bearing Cover (B) Armature Ass'y BB (6200VVCM) Lock Plate Seal Ring	Housing Ass'y Stator Ass'y Gear Bearing Cover (B) BB (6302VVCM) Felt Packing Packing Gland Spindle Feather Key (4 x 4 x 8)

Standard Repair Expense Estimation

This chart is intended to assist Hitachi Power Tools' authorized service centers in calculating standard repair expenses.

Please refer to the list of "Hitachi Power Tools Standard Repair Time Schedules" issued on September 20, 1991 how to use this chart.