

Hitachi Power Tools

SERVICE MANUAL

LIST No.
D 10VST: E112
Aug. 2011

PRODUCT NAME

Hitachi 10 mm (3/8") Drill

Model D 10VST

D

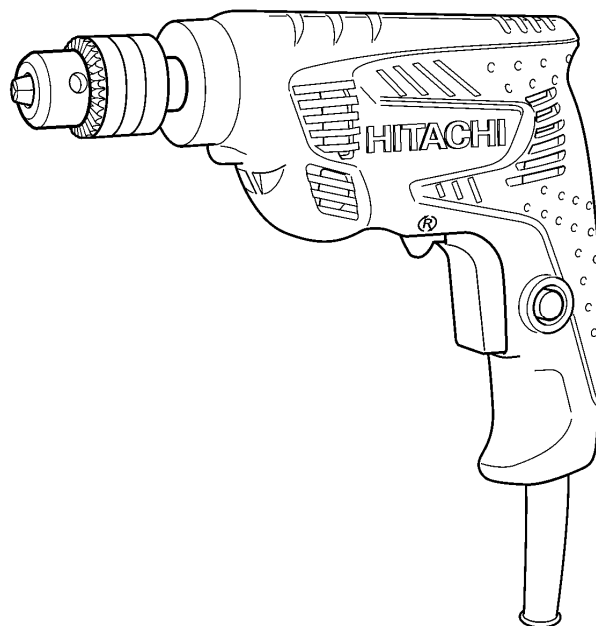
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HITACHI

 **Hitachi Koki Co., Ltd.**
International Sales Division

REPAIR GUIDE

1. Precautions on disassembly and reassembly

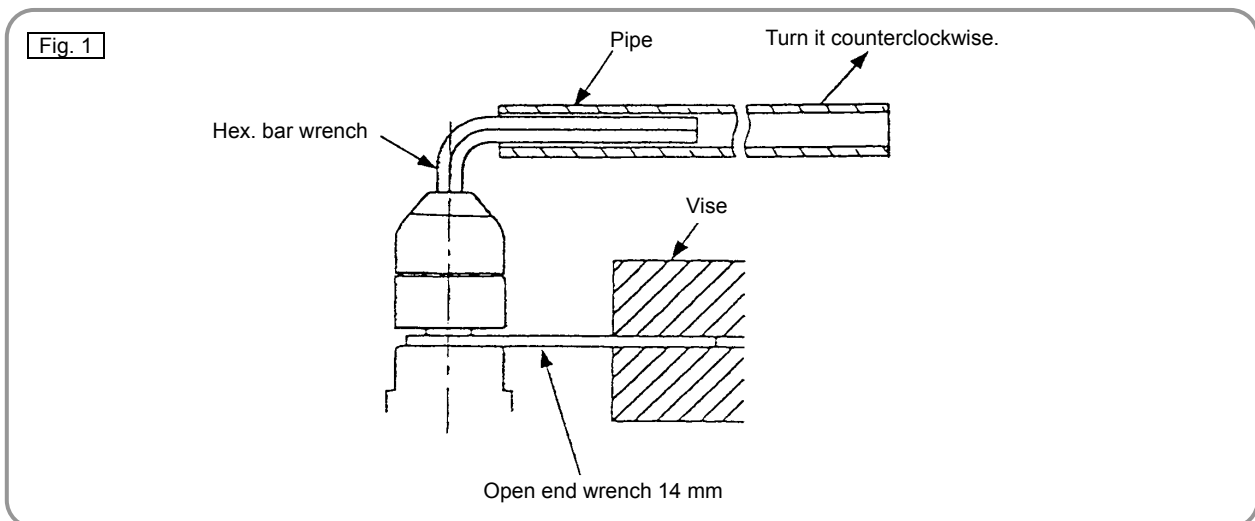
The **[Bold]** numbers in the descriptions below correspond to item numbers in the Parts List and exploded view assembly diagram.

Disassembly

Note on disassembly: Before starting disassembly, be sure to disconnect the power plug from the power supply.

1. Removal of the drill chuck

Hold the Spindle **[3]** with an open end wrench 14 mm secured to the vise as shown in Fig. 1. Mount the pipe onto the hex. bar wrench. Turn the hex. bar wrench counterclockwise to loosen the Drill Chuck **[2]**. (Fig. 1)



2. Removal of the housing (A).(B) set

Loosen the Tapping Screw (W/Flange) D4 X 20 (Black) **[24]** and remove the housing (B) of Housing (A).(B) Set **[12]**.

3. Removal of the armature and stator

- (1) Remove the Brush Holder **[13]** from the housing (A) of Housing (A).(B) Set **[12]** and take out the Carbon Brushes **[14]**.
- (2) Remove the Armature **[10]** and the Stator **[11]** together from the housing (A) of Housing (A).(B) Set **[12]**.

4. Removal of the switch from the stator

First, disconnect the internal wires from the upper side of the Switch **[18]** by pulling the faston terminal. To disconnect the internal wires from the switch, insert a small flat-blade screwdriver into the windows near the terminals and pull out the internal wires.

5. Removal of the gear

Support the drill-chuck side of the gear surface and press the Spindle **[3]**. The Gear **[6]** can be removed.

Reassembly

Perform reassembly by reversing the order of the disassembly procedure. However, special attention should be given to the following items.

1. Internal wire arrangement

- (1) Arrange the internal wires according to "5. Internal wire arrangement and wiring work."
- (2) Be careful not to catch the internal wires when mounting the housing (B) of Housing (A).(B) Set [12].

2. Lubrication

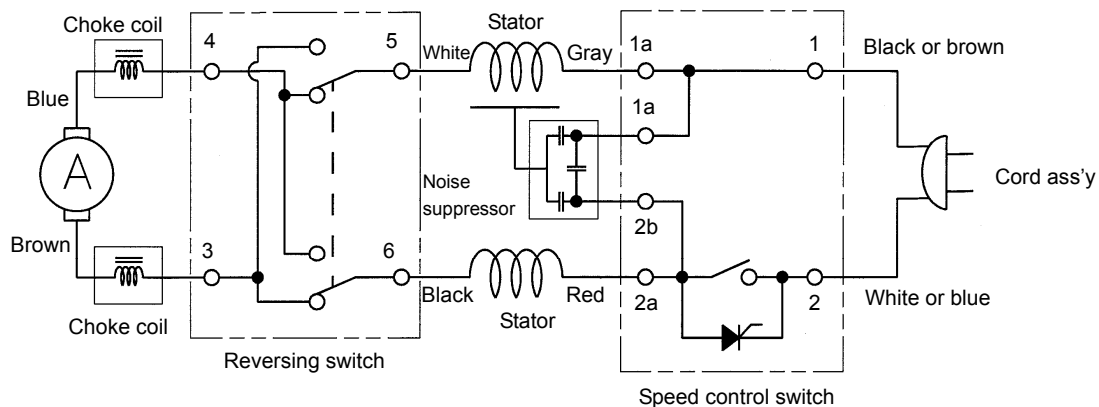
- (1) Apply NIPPECO SEP-3A Grease (Code No. 930038) to the following parts:
 - Teeth of the Armature [10] and the Gear [6] (with a brush)
 - Inside the housing (A) of Housing (A).(B) Set [12]: 2 to 4 g

3. Tightening torque

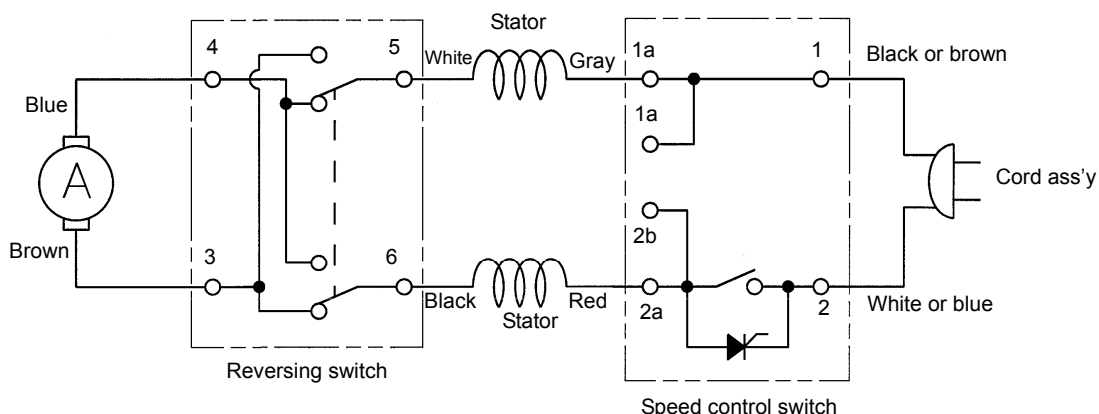
- (1) Tapping Screw (W/Flange) D4 x 20 (Black) [24]----- 1.5 to 2.5 N•m (13.3 to 22.1 in-lbs.)
- (2) Drill Chuck [2]-----27.5 to 32.5 N•m (243 to 288 in-lbs.)
- (3) Machine screw M3 (Switch [18])-----0.4 to 0.8 N•m (3.5 to 7.1 in-lbs.)

4. Wiring diagrams

(1) For products with noise suppressor



(2) For products without noise suppressor

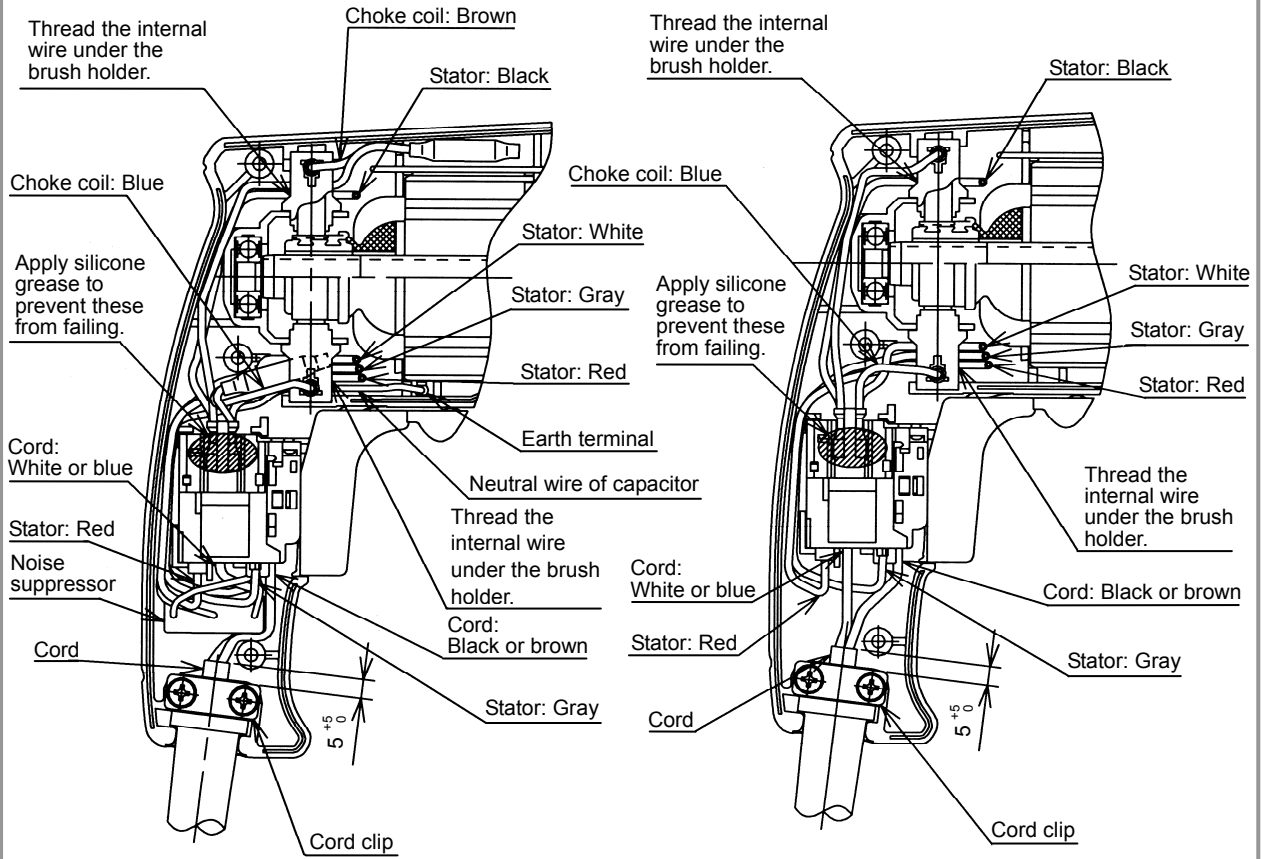


5. Internal wire arrangement and wiring work

A. Internal wire arrangement

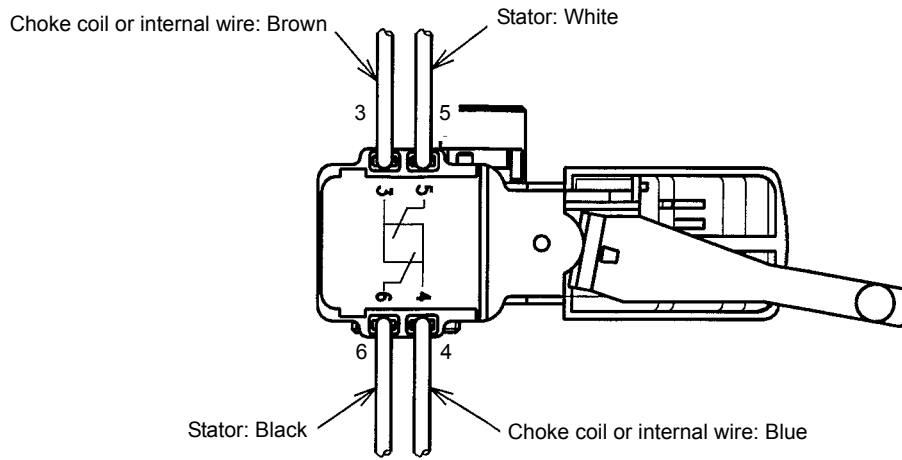
(1) For products with noise suppressor

(2) For products without noise suppressor

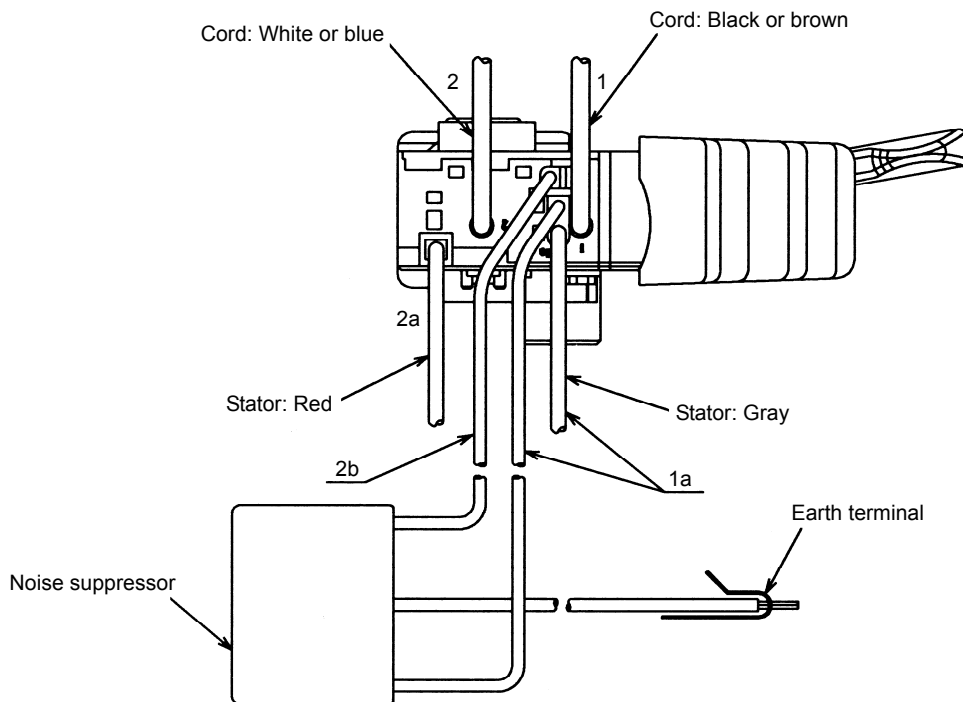


B. Switch connection

(1) Wiring of reversing switch



(2) Wiring of speed control switch



6. Insulation tests

Upon completing reassembly after repair, measure the insulation resistance and conduct a dielectric strength test.

Insulation resistance: 7 M Ω or more using a 500 VAC megohm tester

Dielectric strength: AC 4,000 VAC/minute, with no abnormalities 220 V to 240 V
(110 V for UK products)

AC 2,500 VAC/minute, with no abnormalities 110 V to 127 V
(except UK products)

7. No-load current value

After no-load operation for 30 minutes, the no-load current values should be as follows:

Voltage (V)	110	127	220	230	240
Current (A) Max.	1.8	1.6	1.2	1.2	1.1

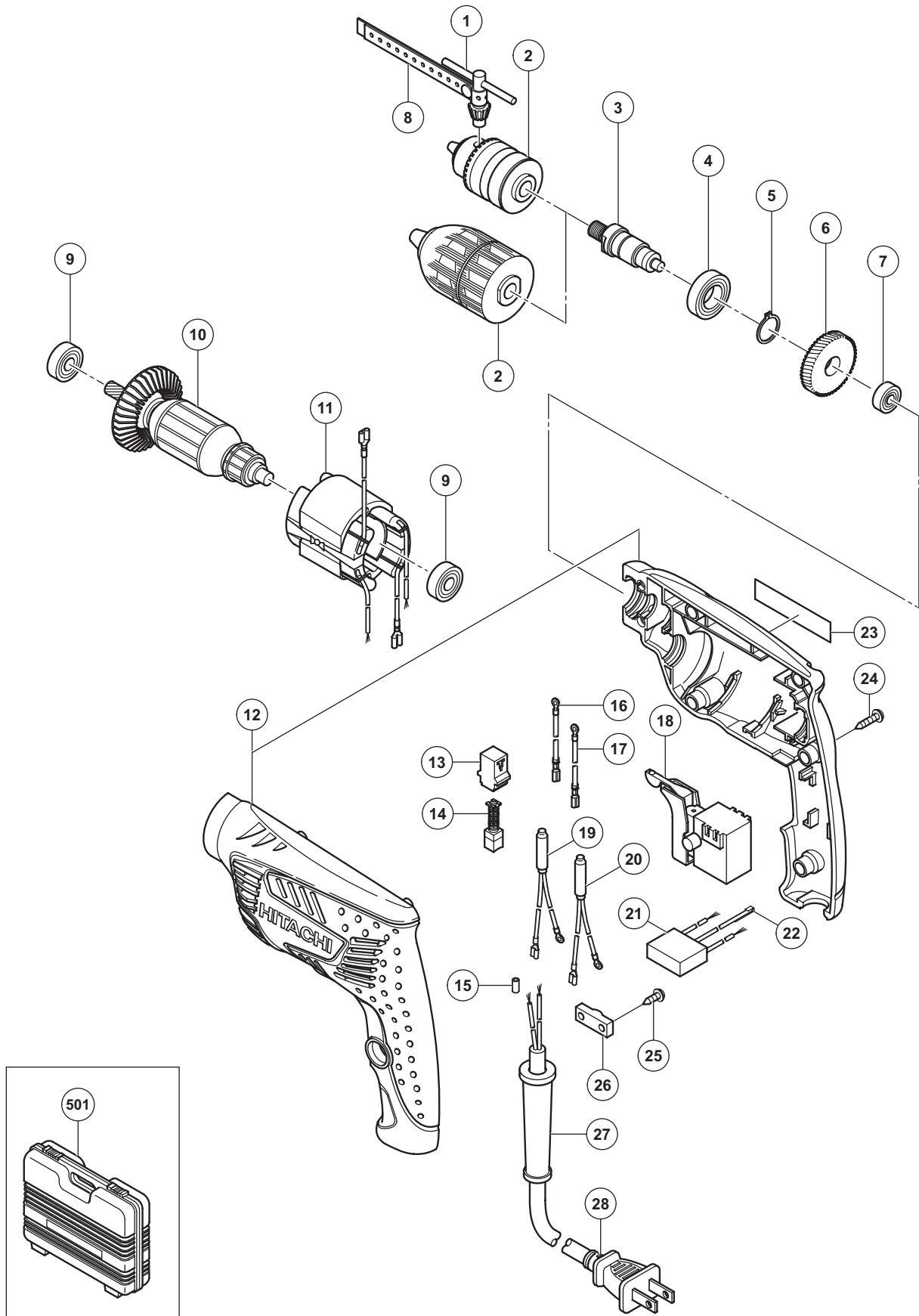
STANDARD REPAIR TIME (UNIT) SCHEDULES

MODEL	Variable		10	20	30	40	50	60 min
	Fixed							
D 10VST			Work Flow					
			General Assembly	<div style="margin-bottom: 10px;"> Switch Cord Cord Armor </div> <div style="margin-bottom: 10px;"> Armature Stator Ball Bearing (608VV) x 2 Housing (A).(B) Set </div> <div style="margin-bottom: 10px;"> Spindle Ball Bearing (6902VV) Gear Ball Bearing (606ZZ) </div> <div> Drill Chuck </div>				

ELECTRIC TOOL PARTS LIST

■ DRILL
Model D 10VST

2011·8·6
(E1)



PARTS

D 10VST

ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS	
*	1	980-057	CHUCK WRENCH 10TL2	1	FOR DRILL CHUCK
*	2	950-292	DRILL CHUCK 10TLRA	1	INCLUD. 1
*	2	331-602	DRILL CHUCK 10MM (W/O CHUCK WRENCH)	1	
	3	334-198	SPINDLE	1	
	4	690-2VV	BALL BEARING 6902VVCMP2L	1	
	5	939-544	RETAINING RING FOR D15 SHAFT (10 PCS.)	1	
	6	334-197	GEAR	1	
	7	606-ZZM	BALL BEARING 606VVC2	1	
*	8	950-288	VINYL BAND	1	FOR DRILL CHUCK
	9	333-945	BALL BEARING 608VV	2	
*	10	360-926C	ARMATURE 110V-115V	1	
*	10	360-926D	ARMATURE 120V-127V	1	
*	10	360-926E	ARMATURE 220V-230V	1	
*	10	360-926F	ARMATURE 240V	1	
*	11	340-814C	STATOR 110V-115V	1	
*	11	340-814D	STATOR 120V-127V	1	
*	11	340-814E	STATOR 230V	1	
*	11	340-814F	STATOR 240V	1	
*	11	340-814G	STATOR 220V	1	
	12	334-196	HOUSING (A).(B) SET	1	
	13	930-483	BRUSH HOLDER	2	
	14	999-041	CARBON BRUSH (1 PAIR)	2	
	15	981-373	TUBE (D)	2	
*	16	334-194	INTERNAL WIRE (BROWN)	1	FOR SAF, UAE, KUW, IND, INA, THA, HKG, BRA, MEX, SIN
*	17	334-195	INTERNAL WIRE (BLUE)	1	FOR SAF, UAE, KUW, IND, INA, THA, HKG, BRA, MEX, SIN
*	18	330-716	SWITCH AC250V	1	
*	18	330-684	SWITCH AC125V	1	FOR GBR (110V), SAF, BRA, MEX, SIN, TPE
*	19	334-191	CHOKE COIL (BROWN)	1	
*	19	334-193	CHOKE COIL (BROWN)	1	FOR GBR (110V), TPE
*	20	334-190	CHOKE COIL (BLUE)	1	
*	20	334-192	CHOKE COIL (BLUE)	1	FOR GBR (110V), TPE
*	21	334-472	NOISE SUPPRESSOR	1	FOR EUROPE, AUT, TUR, AUS, NZL, SIN, CHN, KOR, TPE
	22	302-488	EARTH TERMINAL	1	
	23		NAME PLATE	1	
	24	301-653	TAPPING SCREW (W/FLANGE) D4 X 20 (BLACK)	7	
	25	984-750	TAPPING SCREW (W/FLANGE) D4 X 16	2	
	26	937-631	CORD CLIP	1	
*	27	953-327	CORD ARMOR D8.8	1	
*	27	938-051	CORD ARMOR D10.1	1	
*	28	500-409Z	CORD	1	(CORD ARMOR D8.8)
*	28	500-461Z	CORD	1	(CORD ARMOR D8.8) FOR GBR (110V)
*	28	500-436Z	CORD	1	(CORD ARMOR D8.8) FOR GBR (230V), HKG
*	28	500-470Z	CORD	1	(CORD ARMOR D10.1) FOR UAE, SAF, SIN
*	28	500-234Z	CORD	1	(CORD ARMOR D8.8) FOR BRA
*	28	500-240Z	CORD	1	(CORD ARMOR D8.8) FOR MEX
*	28	500-439Z	CORD	1	(CORD ARMOR D8.8) FOR AUS, NZL
*	28	500-237Z	CORD	1	(CORD ARMOR D8.8) FOR UAE, KUW, SIN
*	28	500-468Z	CORD	1	(CORD ARMOR D8.8) FOR CHN, THA

