

MODEL

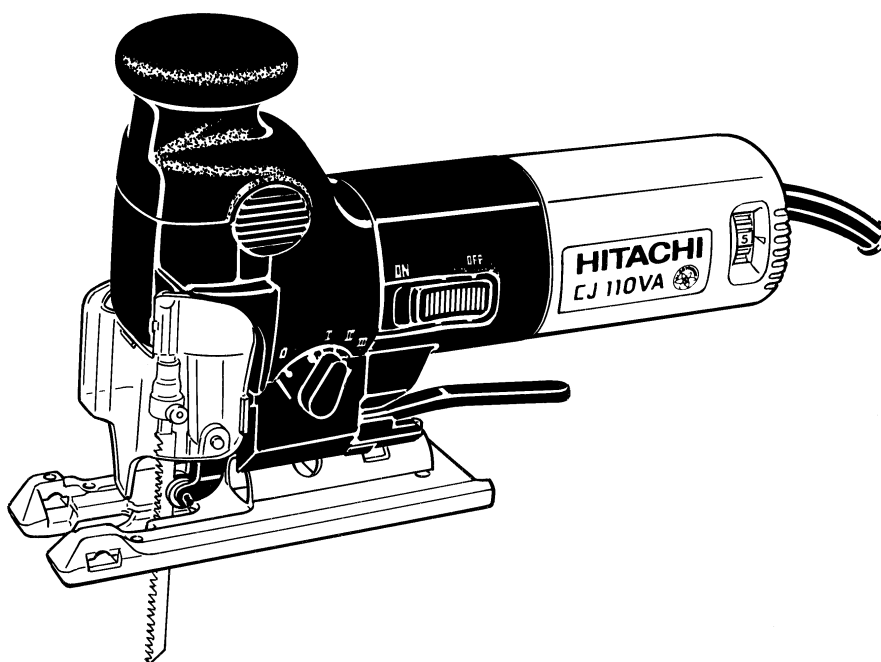
**CJ 110VA**

**HITACHI**  
**POWER TOOLS**

**C**

**JIG SAW**  
**CJ 110VA**

**TECHNICAL DATA**  
**AND**  
**SERVICE MANUAL**



LIST No. 0584

Feb. 2000

SPECIFICATIONS AND PARTS ARE SUBJECT TO CHANGE FOR IMPROVEMENT

**Notice for use**

Specifications and parts are subject to change for improvement.  
Refer to Hitachi Power Tool Technical News for further information.

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## 1. PRODUCT NAME

Hitachi Electronic Jig Saw, Model CJ 110VA [110 mm (4-1/4")]

[100 mm (3-7/8") for Europe]

## 2. MARKETING OBJECTIVE

The Model CJ 110VA has been developed, based on the Model CJ 65VA2, to expand market share by adding competitive features. The key features of the Model CJ 110VA are as follows:

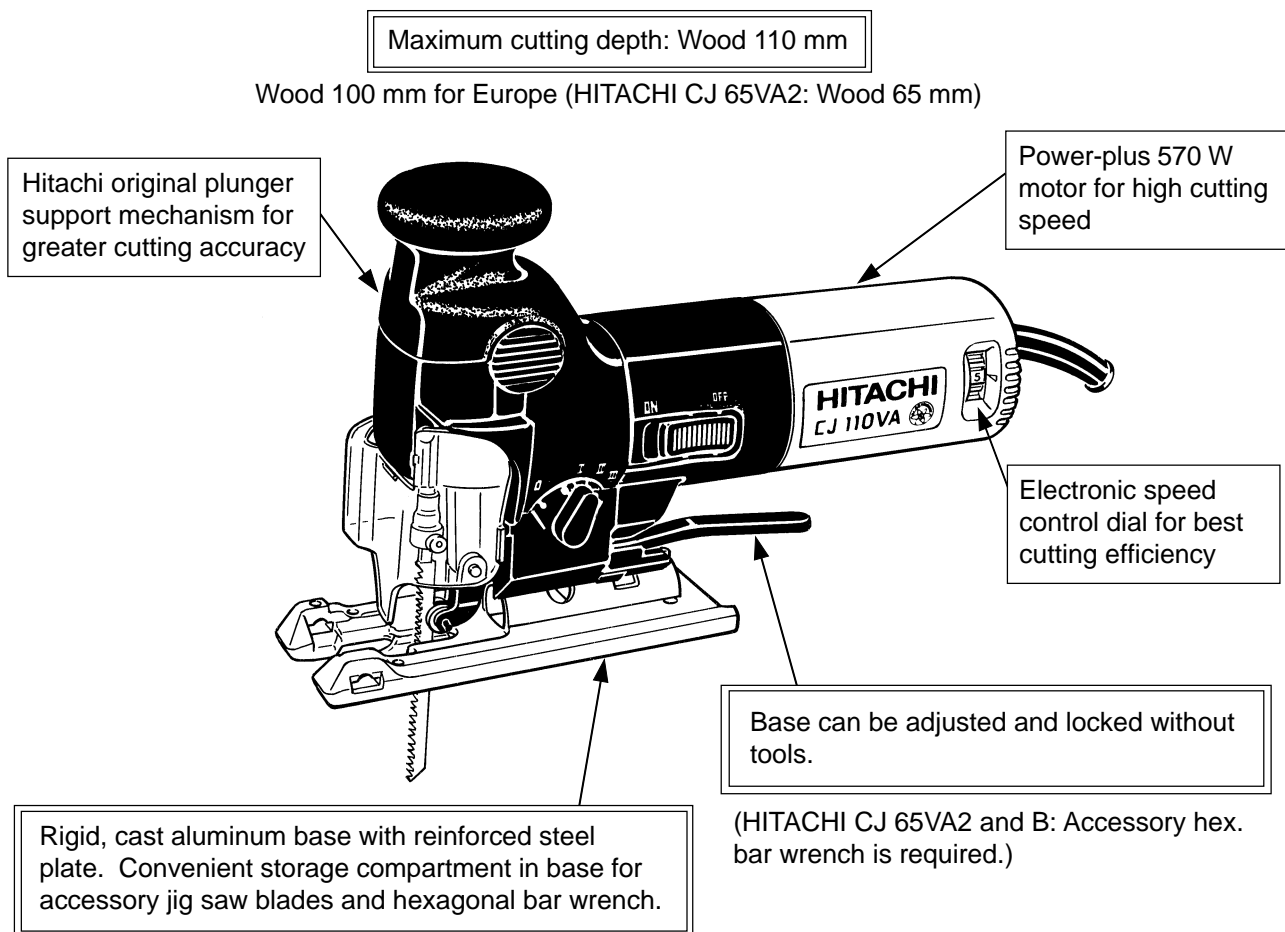
- ① A base that can be adjusted and locked without tools
- ② Maximum cutting depth: 110 mm (4-1/4") [100 mm (3-7/8") for Europe, in compliance with standards]  
[When using the No. 1 (Long) blade]

The Model CJ 110VA is added to Hitachi's jig saw lineup alongside the Model CJ 65VA2.

## 3. APPLICATIONS

- Cutting or cutting out shapes in various types of wood workpieces
- Cutting various types of metals such as mild steel, aluminum and copper
- Cutting various types of synthetic resin materials such as bakelite and vinyl chloride
- Cutting various decorative sheets, and, thin and soft construction materials
- Cutting stainless steel sheets

## 4. SELLING POINTS



#### 4-1. Selling Point Descriptions

##### (1) Adjusting and locking the base

The base must be adjusted when cutting in a circle using the optional circular guide, when cutting out shapes, or when bevel cutting. The Model CJ 110VA requires no tool for adjusting and locking of the base. Adjust and lock the base according to the following procedure.

- ① Turn the base handle just under the housing about 90° to loosen (Fig. 1).
- ② Move the base forward or backward if necessary. For bevel cutting, align the horizontal groove on the half-round portion of the base to the mark on the gear cover to incline the base. The base can be inclined to either side (right or left) up to 45°. The half-round portion is calibrated from 0° to 45° in increments of 15°. The base can be easily inclined by adjusting the ▼ mark on the gear cover to the desired calibration (Fig. 2).
- ③ Turn the base handle about 90° in the direction opposite to ① to lock the base and secure the base handle to the original position just under the housing (Fig. 1).

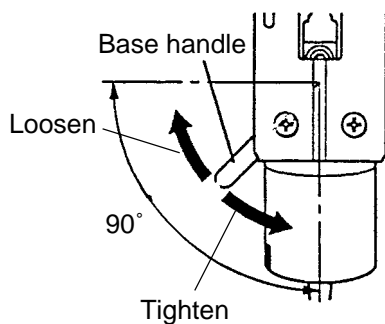


Fig. 1

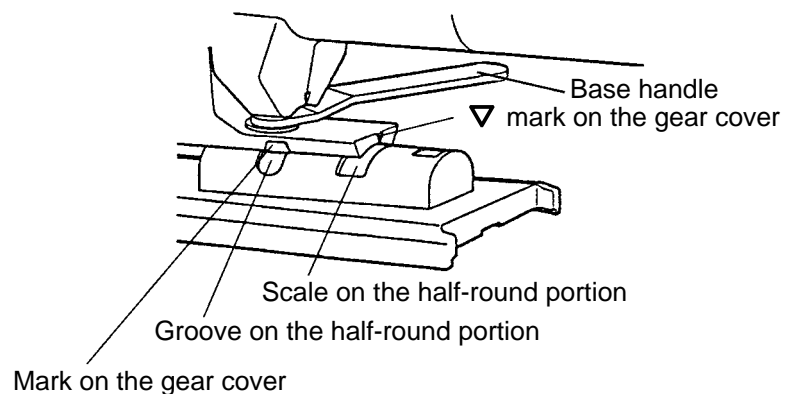


Fig. 2

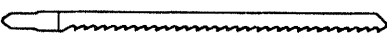
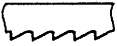
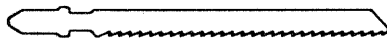
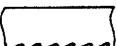
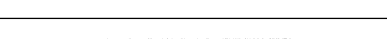
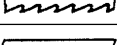

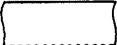
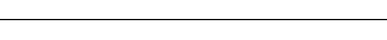
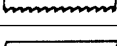

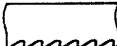
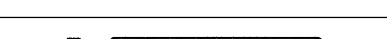
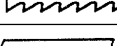
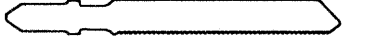


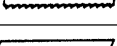
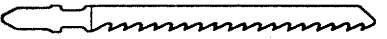
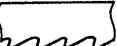
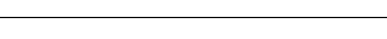
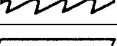
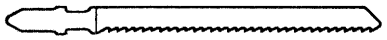
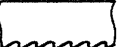
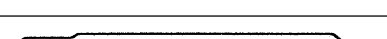



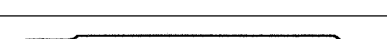



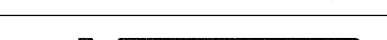
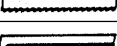


## 5. SPECIFICATIONS

	CJ 110VA
Capacities	Max. cutting thickness      Wood      110 mm (4-1/4") Mild steel      10 mm (3/8") (For Europe: Wood 100 mm (3-7/8") in compliance with standards)
Min. cutting radius	25 mm (1")
Type of power source	Single-phase AC 50/60 Hz
<div> <div>Voltage *</div> <div>Rated current</div> </div>	<div> <div>110 V</div> <div>5.2 A</div> </div> <div> <div>115 V</div> <div>5.2 A</div> </div> <div> <div>230 V</div> <div>2.6 A</div> </div>
Type of motor	Single-phase AC commutator motor
Insulation method	Double insulation
Enclosure	Housing, tail cover ..... Polyamid resin Gear cover, upper cover ..... Aluminum alloy die casting (Black)
Type of switch	Snap switch
Power input *	570 W (U.K. 110 V: 540 W)
Output	About 345 W
Number of strokes per minute	No load                      700 — 3,200 /min.
	Full load                      2,450 /min.
Length of stroke	26 mm (1")
Max. cutting angle	45° (right and left)
Weight	Net    2.4 kg (5.3 lbs.) [actual weight: 2.6 kg (5.7 lbs.)]
	Gross 2.8 kg (6.2 lbs.) [4.2 kg (9.3 lbs.) with plastic case]
Packaging	• Corrugated cardboard box with plastic case
Cord	Length ..... 2.5 m (8.2 ft)
Standard accessories	Blade (No. 41, No. 42, No. 46) ..... Each 1 pc.
	Table insert ..... 1 pc.

\* Be sure to check the Name Plate on product as it is subject to change by areas.

## Optional Accessories

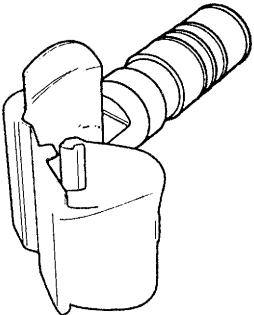
### (1) Blades

Blade shape		Application	Blade No.	Pitch	Code No.	Per pkg.
		Wood	No. 1 (Long)	6	879227	3
		Wood, pulp, synthetic resin	No. 11	8	879336	5
					963390	10
			No. 12	20	879337	5
					963391	10
		Steel, pulp, nonferrous metal, synthetic resin	No. 15	8	879338	5
					963392	10
			No. 16	25	879339	5
					963393	10
		Wood, pulp, synthetic resin	No. 21	6	879340	5
					963394	10
			No. 22	10	879341	5
					963395	10
		Stainless steel	No. 95	18	950482	5
					950483	10
			No. 96	32	950480	5
					950481	10
			No. 97	21	963400	5

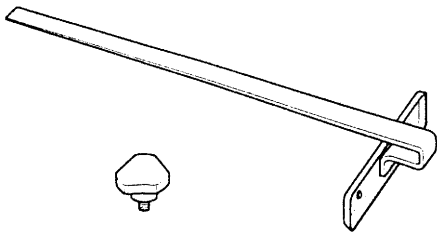
### NOTE:

- The shapes of the standard blade No. 41 and the optional blade No. 21 are the same.
- The shapes of the standard blade No. 42 and the optional blade No. 12 are the same.
- The shapes of the standard blade No. 46 and the optional blade No. 16 are the same.

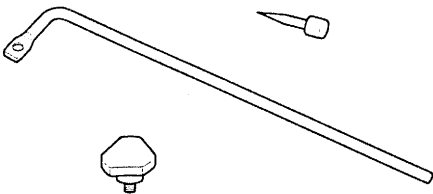
### (2) Dust collector ass'y

	Code No.
	316126

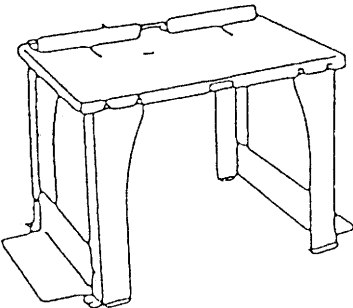
(3) Straight guide ass'y

	Code No.
	305955

(4) Circular guide ass'y

	Code No.
	305956

(5) Bench stand

	Type
	TR 12-B

## 6. COMPARISONS WITH SIMILAR PRODUCTS

Maker			HITACHI		B	C
Model name			CJ 110VA	CJ 65VA2		
Cutting capacity	Wood	mm	110 (4-1/4") 100 (3-7/8") for E.U.	65 (2-1/2")	110 (4-1/4")	110 (4-1/4")
	Mild steel	mm	10 (3/8")	10 (3/8")	10 (3/8")	10 (3/8")
Min. cutting radius		mm	25 (1")	25 (1")	—	—
Length of stroke		mm	26 (1")	26 (1")	26 (1")	26 (1")
Power input		W	570*	570	650	600
No-load speed		/min.	700 — 3,200	700 — 3,200	500 — 3,100	500 — 3,000
No-load noise level		dB	87	87	—	95
Tool-less blade attachment			None	None	Equipped	Equipped
Tool-less base adjustment			Equipped	None	None	Equipped
Max. bevel angle of base (right and left)			45°	45°	45°	45°
Dimensions	Length	mm	267 (10-1/2")	267 (10-1/2")	252 (9-15/16")	274 (10-25/32")
	Height	mm	190 (7-15/32")	178 (7")	189 (7-7/16")	195 (7-11/16")
	Width	mm	72 (2-13/16")	72 (2-13/16")	70 (2-3/4")	72 (2-27/32")
Weight		kg	2.4 (5.3 lbs.)	2.4 (5.3 lbs.)	2.3 (5.1 lbs.)	2.4 (5.3 lbs.)
Actual weight			2.6 (5.7 lbs.)	2.5 (5.5 lbs.)	—	2.6 (5.7 lbs.)
Shipping weight		kg	4.2 (9.3 lbs.)	4.0 (8.8 lbs.)	—	—
Unit per master carton		Unit	5	5	—	—

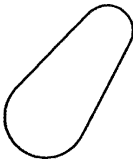
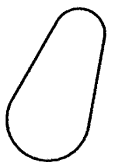

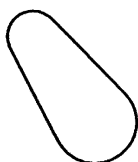
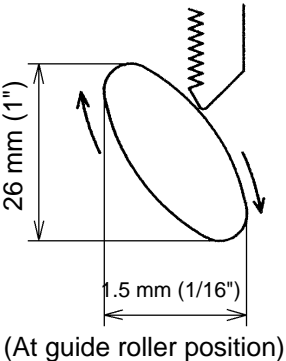
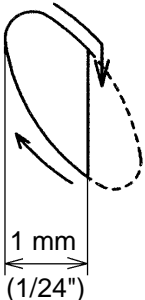
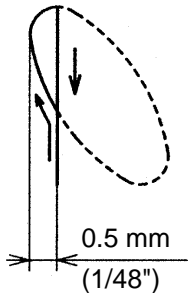
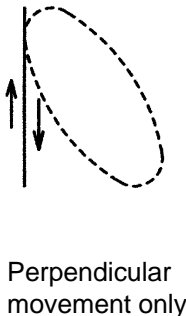
\* Be sure to check the Name Plate on product as it is subject to change by areas.



## 7. ORBITAL MECHANISM

### 7-1. Blade Movement

In the Model CJ 110VA, the orbital mechanism moves the blade up-and-down and forward-and-backward in the same manner as the Model CJ 65VA2. This makes the blade dig well into wood and other soft materials and also discharges cutting chips well to achieve speedy cutting. The amount of fore-and-aft blade movement can be adjusted just by turning the change knob to any of the four settings. The following table shows the modeled orbits of blade movement at each orbital position (change knob position).

	III	II	I	0
Orbital position				
Blade edge movement	 (At guide roller position)	 (1 mm (1/24"))	 (0.5 mm (1/48"))	 Perpendicular movement only

**Table 1 Blade movement illustration**

### 7-2. Orbital Position Selection

Selection of the most appropriate orbital position for each cutting job is essential to achieve the best efficiency for cutting. However, as the best orbital position depends on such factors as the hardness and thickness of the workpiece, the desired finish of the cut surface, and so on, it is not practical to set a single, simple standard for best orbital position selection. The table (next page) can be used as a general guide for appropriate orbital position selection based on various factors.

**Table General guide for appropriate orbital position selection**

Factor	Orbital position			
	III	II	I	0
Material hardness	Soft material		Hard material	
Material thickness	Thick		Thin	
Cutting speed	Faster cutting		Slower cutting	
Straight cutting or curved cutting	Straight cutting		Curved cutting	
Surface finishing	Rough finish acceptable (splintering, chipping acceptable)		Fine finishing	
Material stability	Very stable		Unstable	

## 8. BLADES

Proper blade selection is very important to obtain the maximum performance of this model. The table below, based on type and thickness of the material to be cut, can be used as a handy reference in selecting the optimum blade.

Material to be cut	Blade	No. 1 (Long)	No. 11	No. 12, 42	No. 15	No. 16, 46	No. 21, 41	No. 22	No. 95	No. 96	No. 97
	Material quality	Thickness of material [mm (inch)]									
Lumber	General lumber	Below 110 (4-1/4)	10 (3/8) - 60 (2-11/32)	Below 20 (3/4)			10 (3/8) - 60 (2-11/32)	5 (5/16) - 40 (1-9/16)			
	Plywood		5 (3/16) - 30 (1-3/16)	Below 10 (3/8)			5 (3/16) - 30 (1-3/16)	3 (1/8) - 20 (1-3/4)			
Iron plate	Mild steel plate				3 (1/8) - 10 (3/8)	Below 3 (1/8)			3 (1/8) - 6 (1/4)	Below 3 (1/8)	2 (5/14) - 5 (3/16)
	Stainless steel plate								1.5 (1/16) - 2.5 (3/32)	0.5 (1/64) - 1.5 (1/16)	1.5 (1/16) - 2.5 (3/32)
Nonferrous metal	Aluminum copper, brass				3 (1/8) - 12 (15/32)	Below 3 (1/8)			3 (1/8) - 12 (15/32)	Below 3 (1/8)	Below 5 (3/16)
	Aluminum sash				Height up to 30 (1-3/16)				Height up to 30 (1-3/16)		Height up to 30 (1-3/16)
Plastics	Phenol resin, melamin resin, etc.				5 (3/16) - 20 (3/4)	Below 6 (1/4)	5 (3/16) - 15 (19/32)	Below 6 (1/4)	5 (3/16) - 20 (3/4)	Below 6 (1/4)	5 (3/16) - 15 (19/32)
	Vinyl chloride, acryl resin, etc.		5 (3/16) - 30 (1-3/16)	Below 10 (3/8)	5 (3/16) - 20 (3/4)	Below 5 (3/16)	5 (3/16) - 30 (1-3/16)	3 (1/8) - 20 (3/4)	5 (3/16) - 20 (3/4)	Below 5 (3/16)	5 (3/16) - 15 (19/32)
	Foamed polyethylene, foamed styrol		10 (3/8) - 60 (2-11/32)	3 (1/8) - 30 (1-3/16)	5 (3/16) - 30 (1-3/16)	3 (1/8) - 30 (1-3/16)	10 (3/8) - 60 (2-11/32)	3 (1/8) - 40 (1-1/2)	5 (3/16) - 30 (1-3/16)	3 (1/8) - 30 (3/16)	5 (3/16) - 30 (1-3/16)
Pulp	Cardboard corrugated paper		10 (3/8) - 60 (2-11/32)	3 (1/8) - 30 (1-3/16)			10 (3/8) - 60 (2-11/32)	3 (1/8) - 40 (1-1/2)			
	Hardboard				3 (1/8) - 30 (1-3/16)	Below 6 (1/4)			3 (1/8) - 30 (1-3/16)	Below 6 (1/4)	3 (1/8) - 30 (1-3/16)
	Fiberboard					Below 6 (1/4)					

### NOTE:

- The minimum cutting radius of No. 1 (Long), No. 21 and No. 22 and No. 41 blades is 100 mm (4").
- No. 1 (Long), No. 11, No. 12, No. 15, No. 16, No. 21, No. 22, No. 95, No. 96 and No. 97 blades are sold separately.

## 9. PRECAUTIONS IN SALES PROMOTION

In the interest of promoting the safest and most efficient use of the Model CJ 110VA Jig Saw by all of our customers, it is very important that at the time of sale the salesperson carefully ensures that the buyer seriously recognizes the importance of the contents of the Handling Instructions, and fully understands the meaning of the precautions listed on the Caution Plate attached to each tool.

### 9-1. Handling Instructions

Although every effort is made in each step of design, manufacture, and inspection to provide protection against safety hazards, the dangers inherent in the use of any electric tool cannot be completely eliminated. Accordingly, general precautions and suggestions for the use of electric power tools, and specific precautions and suggestions for the use of the Jig Saw is listed in the Handling Instructions to enhance the safe, efficient use of the tool by the customer. Salespersons must be thoroughly familiar with the contents of the Handling Instructions to be able to offer appropriate guidance to the customer during sales promotion.

### 9-2. Name Plate

Each tool is provided with a Name Plate which lists the following basic safety precautions in the use of the tool.

(1) For U.S.A. and Canada

**DOUBLE INSULATED** - When servicing,  
use only identical replacement parts.

**CAUTION** ● For safe operation, see instruction manual.

**AVERTISSEMENT** ● Lire avec attention la notice  
d'utilisation.

(2) For New Zealand

**CAUTION**

● Read thoroughly **HANDLING INSTRUCTIONS** before use.

## 10. PRECAUTIONS IN DISASSEMBLY AND REASSEMBLY

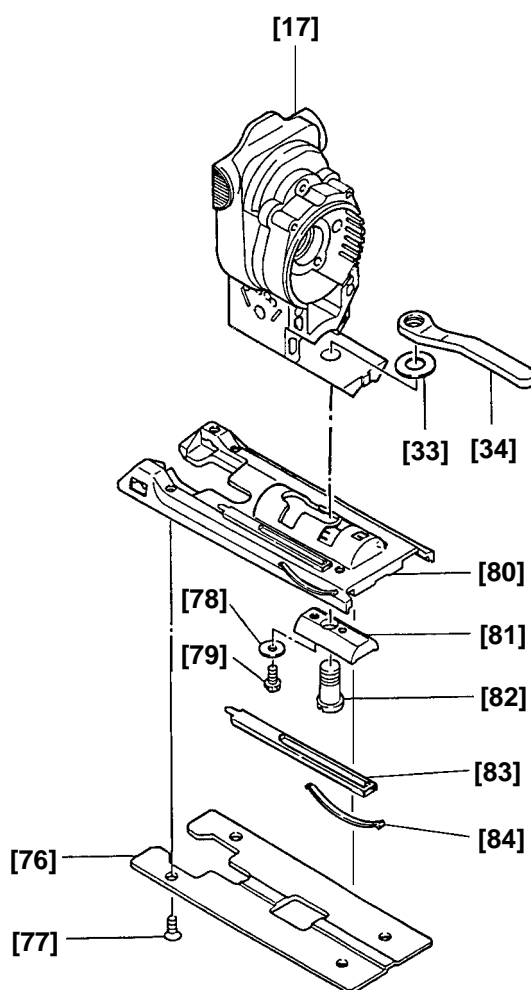
The circled numbers and the **[Bold]** numbers in the descriptions below correspond to the item numbers in the Parts Lists and exploded assembly diagram for the Model CJ 110VA.

## 10-1. Disassembly

(1) Disassembly of the Base **[80]** (Fig. 3)

Remove the four Nylock Flat Hd. Screws N5 x 10 [77] and remove the Sub Base [76] from the Base [80].

Remove the two Hex. Socket Hd. Bolts M4 x 8 **[79]** together with the two Washers **[78]**. Holding the Base Handle **[34]** with a hand, loosen and remove the Base Bolt **[82]** with a flat head screwdriver. Now, the Base **[80]**, the Base Locker **[81]**, Washer **[33]** and Base Handle **[34]** can be removed from the Gear Cover **[17]**.



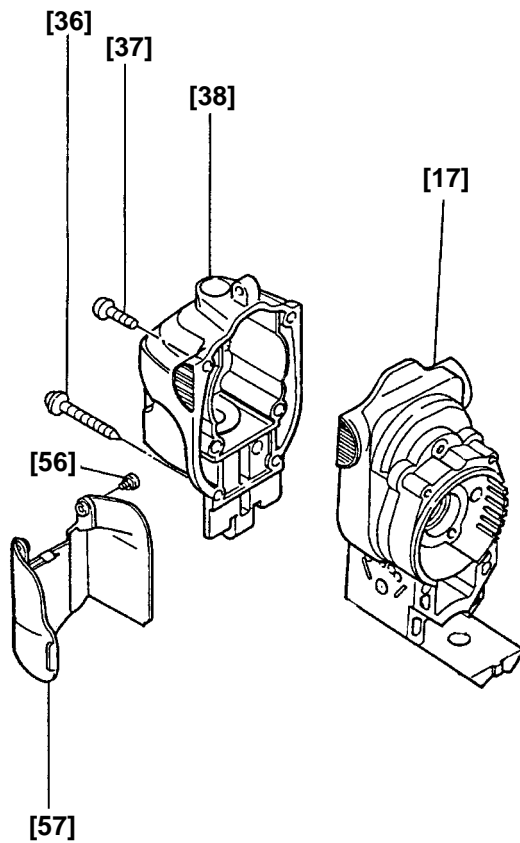
**Fig. 3**

## (2) Disassembly of Cover (A) [35] and Cover (B) [39]

Remove the Tapping Screw (W/Flange) D4 x 25 **[40]**, and disassemble Cover (A) **[35]** and Cover (B) **[39]**.

(3) Removal of the Upper Cover **[38]** (Fig. 4)

Remove the Special Screw M3 x 4 **[56]** and then remove the Chip Cover **[57]**. Remove the two Machine Screws M4 x 16 **[37]** and the two Tapping Screws (W/Flange) D4 x 65 **[36]**. Then move the Upper Cover **[38]** in the forward direction to remove it together with the Plunger **[62A]** and related parts.



**Fig. 4**

(4) Removal of the Plunger [62A] and the Plunger Holder Ass'y [41] from the Upper Cover [38] (Fig. 5)

Remove the Rubber Cushion [43]. Remove the two Seal Lock Flat Hd. Screws M4 x 10 [70] and then remove the Connector [45]. Pull out the Pin D6 x 47 [42] from the Upper Cover [38]. Pull out the Plunger [62A] downward from the Upper Cover [38]. Remove the Plunger Holder Ass'y [41] together with the O-ring [61] from the Upper Cover [38]. Remove the Connector Holder [44] and the two Springs [60] from the Upper Cover [38].

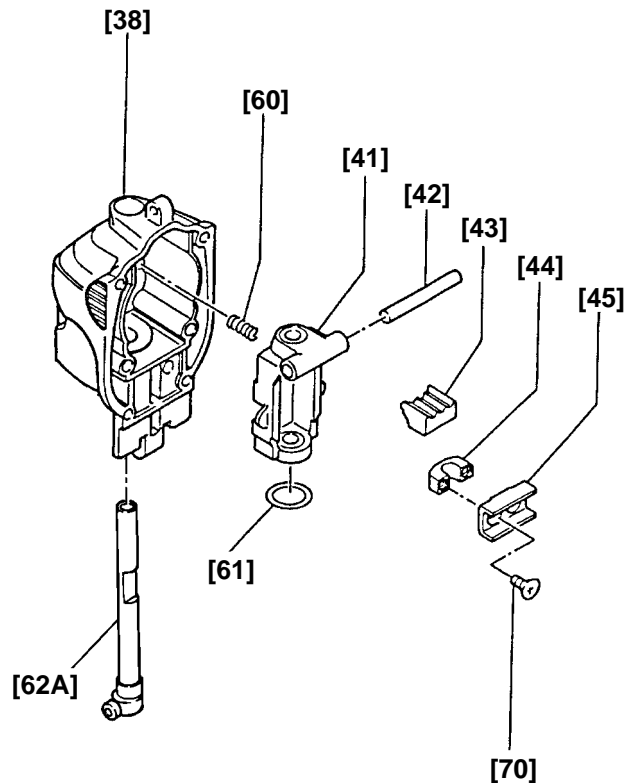


Fig. 5

(5) Disassembly of the Guide Roller [59] from the Upper Cover [38] (Fig. 6)

Extract the Needle D5 x 19.8 [58] which is press-fitted into the Upper Cover [38], and remove the Guide Roller [59].

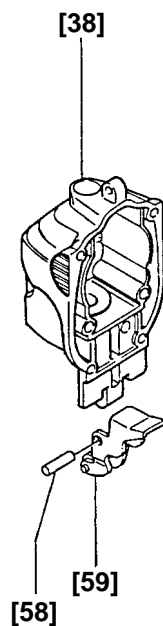


Fig. 6

(6) Disassembly of the Weight Holder [49] from the Gear Cover [17] (Fig. 7)

First, remove the Retaining Ring for D8 Shaft [71] from the end of the Spindle [55]. Then, being very careful not to lose the Orbital Pin [74], pull out the Weight Holder [49] together with the Gear [53], the three Balance Weights [51], and related parts from the Gear Cover [17].

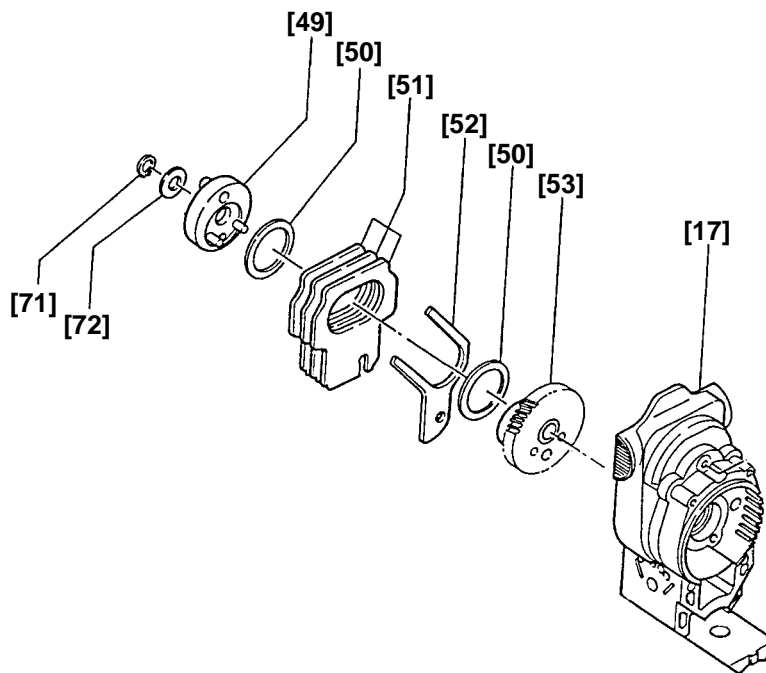


Fig. 7

(7) Disassembly of the Weight Holder [49] from the Gear Cover [17] (Fig. 8)

Remove the Hex. Socket Hd. Bolt (W/Flange) M5 x 12 [73] from the Weight Holder [49]. Washer (A) [50], the three Balance Weights [51], the Orbital Cam [52], and then Washer (A) [50] can be removed in that order.

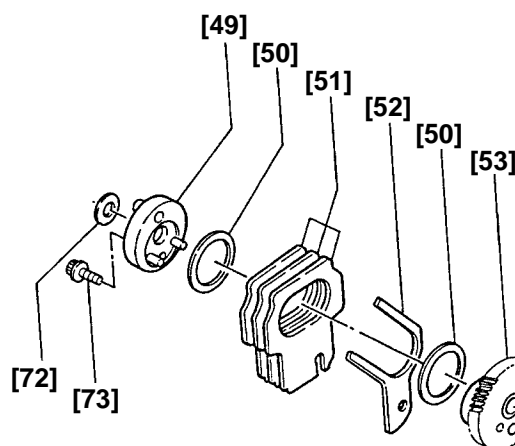


Fig. 8

(8) Disassembly of the Gear Cover [17] and the Housing [26] (Fig. 9)

Prior to disassembly, remove the two Carbon Brushes (Auto Stop Type) [2] as described in the Instruction Manual. Remove the two Tapping Screws D4 x 30 [16] from inside the Gear Cover [17]. Then move the Gear Cover [17] toward the front to remove it together with Armature [20].

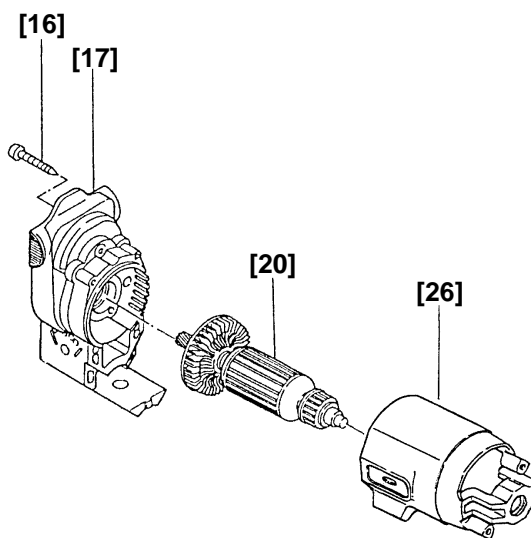


Fig. 9

(9) Disassembly of the Change Knob [29] from the Gear Cover [17] (Fig. 10)

Being very careful not to lose Spring (C) [30] and the Steel Ball D3.97 [31] inside the Change Knob [29], remove the Retaining Ring (E-Type) for D5 Shaft [32] from the end of the Change Knob [29], and remove the Change Knob from the Gear Cover [17].

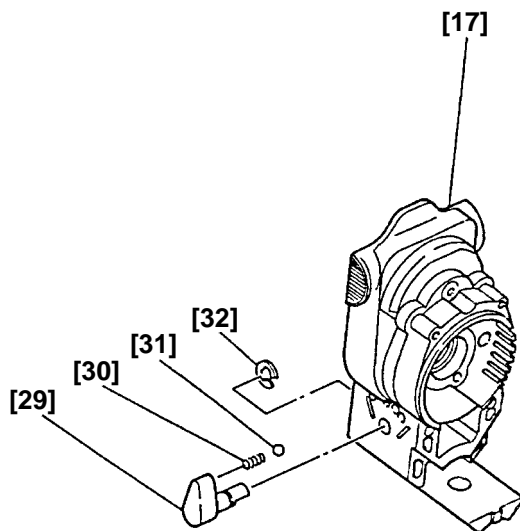


Fig. 10



(10) Removal of the Carbon Brushes (Auto Stop Type) [2] from the Housing [26]

For removal of the Carbon Brushes (Auto Stop Type) [2], please refer to the Handling Instructions.

(11) Removal of Wiring Block (B) Ass'y [5] (Fig.11)

Remove the two Tapping Screws (W/Flange) D4 x 16 [9], and take off the Cord Clip [8], Cord [15], and Cord Armor [10]. Then hold Wiring Block (A) [3], and push Wiring Block (B) Ass'y [5] by hand from the switch lever side toward the switch terminal side to remove it.

(12) Removal of Wiring Block (A) [3] (Fig. 11)

Remove the two Tapping Screws (W/Flange) D4 x 16 [13], hold the Housing [26], and pull Wiring Block (A) [3] to the rear to remove it.

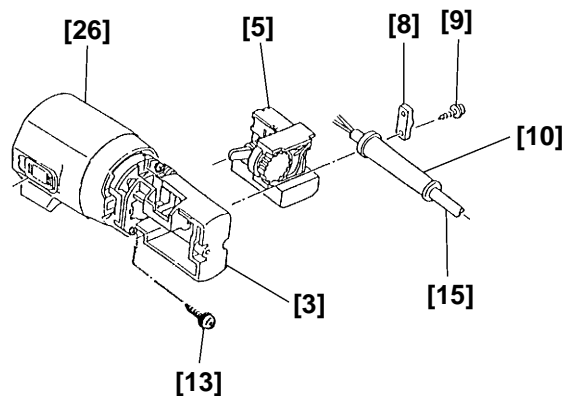


Fig. 11

## 10-2. Reassembly

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

(1) Installation of the Carbon Brushes (Auto Stop Type) [2]

For installation of the Carbon Brushes (Auto Stop Type) [2], please refer to the Instruction Manual.

(2) Replacement of the Cord [15]

If the Cord [15] must be replaced, ensure that the Internal Wires [6] are properly connected to the end of the new Cord [15] with the two Connectors 50096 [7] before installing the new Cord [15].

(3) Assemble Spring (C) [30] and the Steel Ball D3.97 [31] in the Change Knob [29] as shown in Fig. 12.

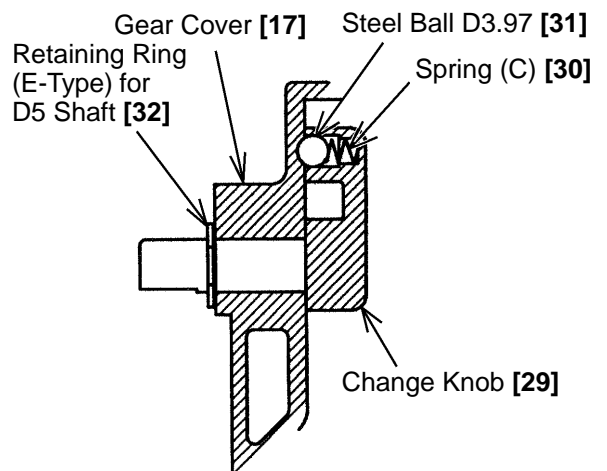
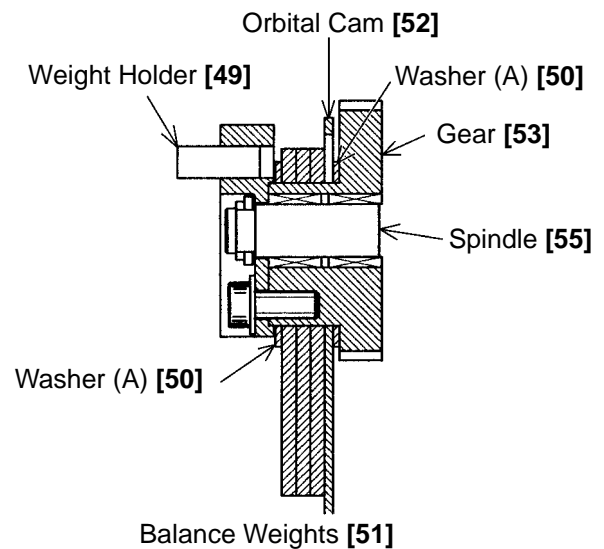


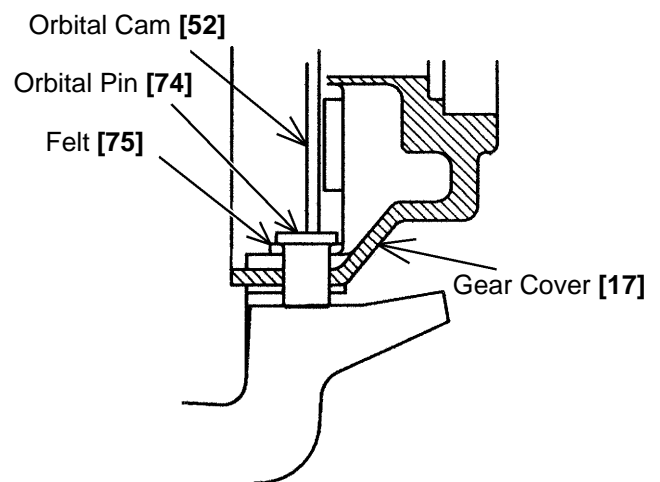
Fig. 12

- (4) Carefully ensure that two Washers (A) [50], the Orbital Cam [52], and the three Balance Weights [51] are assembled as shown in Fig. 13.



**Fig. 13**

- (5) During reassembly, be very careful not to forget to install the Orbital Pin [74] and the Felt [75] at the lower portion of the Orbital Cam [52], as shown in Fig. 14.



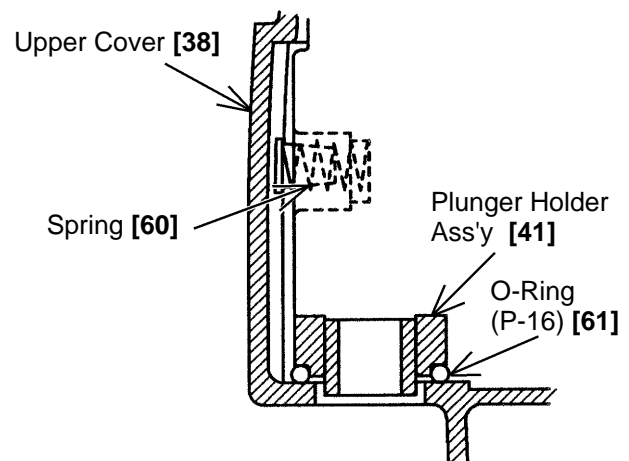
**Fig. 14**

- (6) Grease

Insert 20 g of Nippeco SEP-3A Grease inside the Gear Cover. Also liberally apply grease to the following portions:

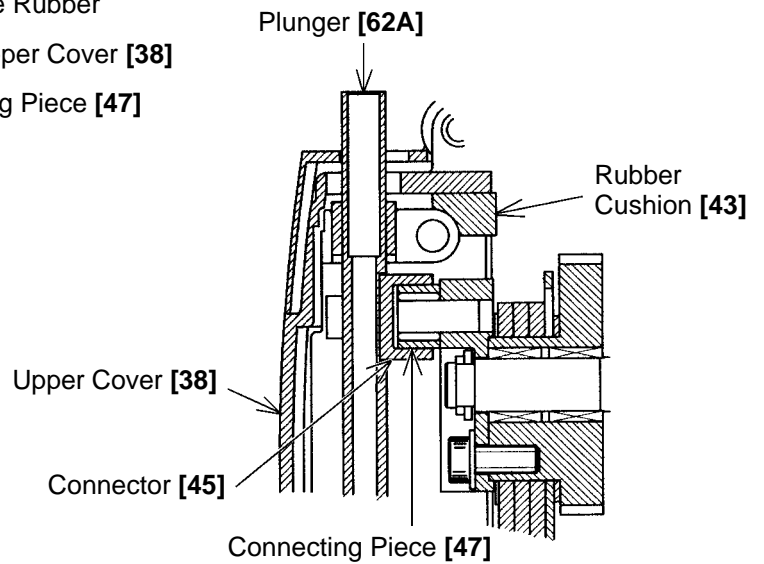
- the teeth of the Gear [53]
- the slide contact portions of the Balance Weights [51]
- inside of the Needle Bearing NTN K6 x 9 x 8T2 [48]
- inside of the Connector [45]
- the slide contact portions of the Plunger [62A]
- the Plunger Holder Ass'y [41] surfaces in sliding contact with the Connector [45]

- (7) When installing the Plunger Holder Ass'y [41] in the Upper Cover [38], ensure that the O-Ring (P-16) [61] is properly mounted at the lower portion of the Plunger Holder Ass'y [41], as shown in Fig. 15. Also, ensure that the two Springs [60] are properly mounted between the Plunger Holder Ass'y [41] and the Upper Cover [38] (Fig. 15).



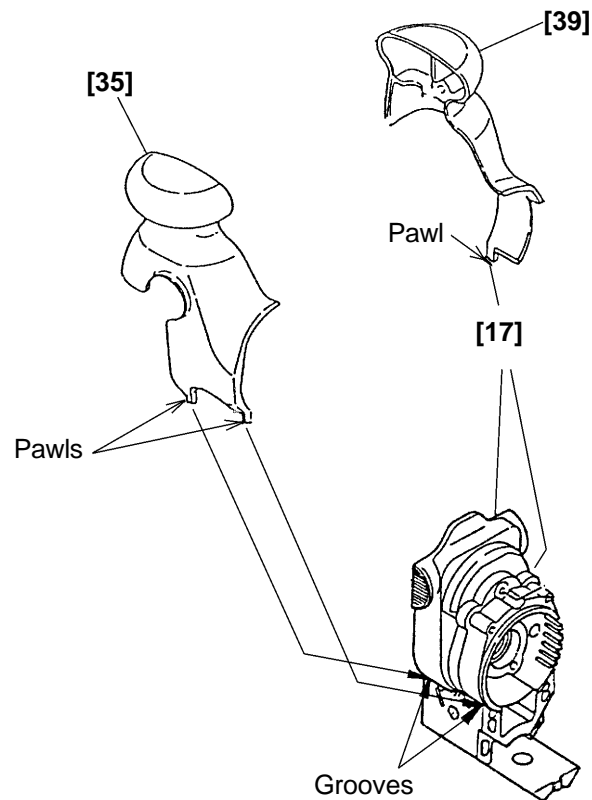
**Fig. 15**

- (8) After confirming that the Packing [46] and the Rubber Cushion [43] are properly installed, fit the Upper Cover [38] to the Gear Cover [17] so that the Connecting Piece [47] properly enters the Connector [45] (Fig. 16).



**Fig. 16**

- (9) Install Cover (A) [35] and Cover (B) [39] so that their pawls (two on Cover (A), one on Cover (B)) are properly inserted into the grooves provided on the Gear Cover [17] (Fig. 17).



**Fig. 17**

(10) Fix the Base Handle [34] by tightening the Base Bolt [82] as shown in Fig. 18.

Mount the Base [80] to the main body positioning the handle at the back.

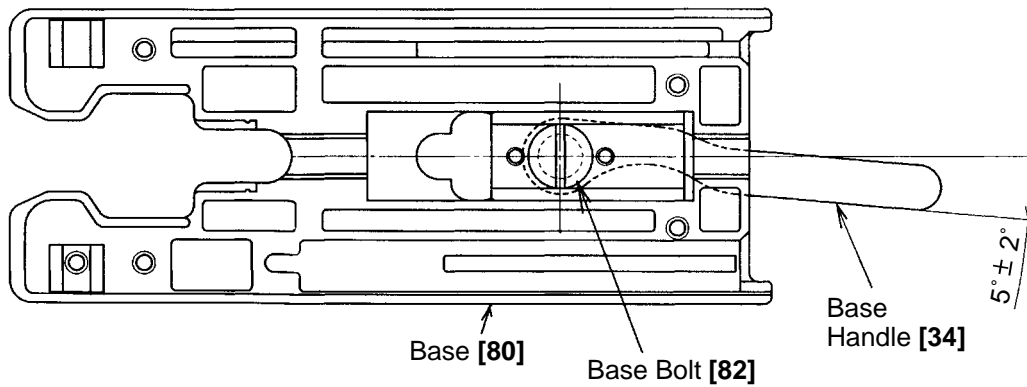


Fig. 18

(11) Tightening torque of screws and bolts:

• Special Screw M3 x 4 [56]	$0.8 \pm 0.2 \text{ N}\cdot\text{m}$ [ $8 \pm 2 \text{ kgf}\cdot\text{cm}$ , $0.6 \pm 0.1 \text{ ft}\cdot\text{lb.}$ ]
• D4 Tapping Screws [9] [12] [13] [16] [36] [40]	$1.96 \pm 0.49 \text{ N}\cdot\text{m}$ [ $20 \pm 5 \text{ kgf}\cdot\text{cm}$ , $1.4 \pm 0.4 \text{ ft}\cdot\text{lbs.}$ ]
• Machine Screw M4 x 16 [37]	$2.45 \pm 0.49 \text{ N}\cdot\text{m}$ [ $25 \pm 5 \text{ kgf}\cdot\text{cm}$ , $1.8 \pm 0.4 \text{ ft}\cdot\text{lbs.}$ ]
• Seal Lock Flat Hd. Screw M4 x 10 [70]	$1.96 - 2.94 \text{ N}\cdot\text{m}$ [ $20 - 30 \text{ kgf}\cdot\text{cm}$ , $1.4 - 2.2 \text{ ft}\cdot\text{lbs.}$ ]
• Hex. Socket Hd. Bolt (W/Flange) M4 x 6 [18]	$2.94 - 4.41 \text{ N}\cdot\text{m}$ [ $30 - 45 \text{ kgf}\cdot\text{cm}$ , $2.2 - 3.3 \text{ ft}\cdot\text{lbs.}$ ]
• Hex. Socket Hd. Bolt M4 x 8 [79]	$4.41 \pm 0.3 \text{ N}\cdot\text{m}$ [ $45 \pm 3 \text{ kgf}\cdot\text{cm}$ , $3.3 \pm 0.2 \text{ ft}\cdot\text{lbs.}$ ]
• Nylock Flat Hd. Screw M5 x 10 [77]	$1.96 - 2.94 \text{ N}\cdot\text{m}$ [ $20 - 30 \text{ kgf}\cdot\text{cm}$ , $1.4 - 2.2 \text{ ft}\cdot\text{lbs.}$ ]
• Hex. Socket Hd. Bolt (W/Flange) M5 x 12 [73]	$3.92 - 5.88 \text{ N}\cdot\text{m}$ [ $40 - 60 \text{ kgf}\cdot\text{cm}$ , $2.9 - 4.3 \text{ ft}\cdot\text{lbs.}$ ]
• Base Bolt [82]	$7.84 \pm 0.49 \text{ N}\cdot\text{m}$ [ $80 \pm 5 \text{ kgf}\cdot\text{cm}$ , $5.8 \pm 0.4 \text{ ft}\cdot\text{lbs.}$ ]

### 10-3. Wiring Diagrams

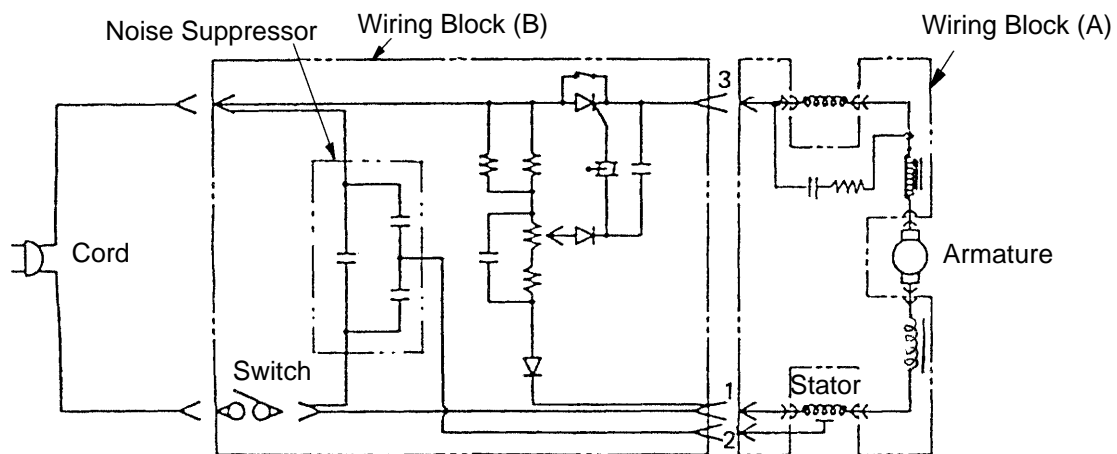


Fig. 19

#### 10-4. Insulation Tests

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

Insulation resistance: 7 M  $\Omega$  or more with 500 V DC Megohm Tester.

Dielectric strength:

AC 4000 V/1 minute, with no abnormalities ..... 110 V, 230 V

AC 2500 V/1 minute, with no abnormalities ..... 115 V

#### CAUTION

- Ensure without fail that the insulation resistance measurement and dielectric strength test are conducted between the plug blade and some portion of the external metal frame such as the gear cover with main switch turned ON. Never carry out these tests between the two blades of the plug. This could cause burning out of the control element in the switch.

#### 10-5. No-Load Current Value

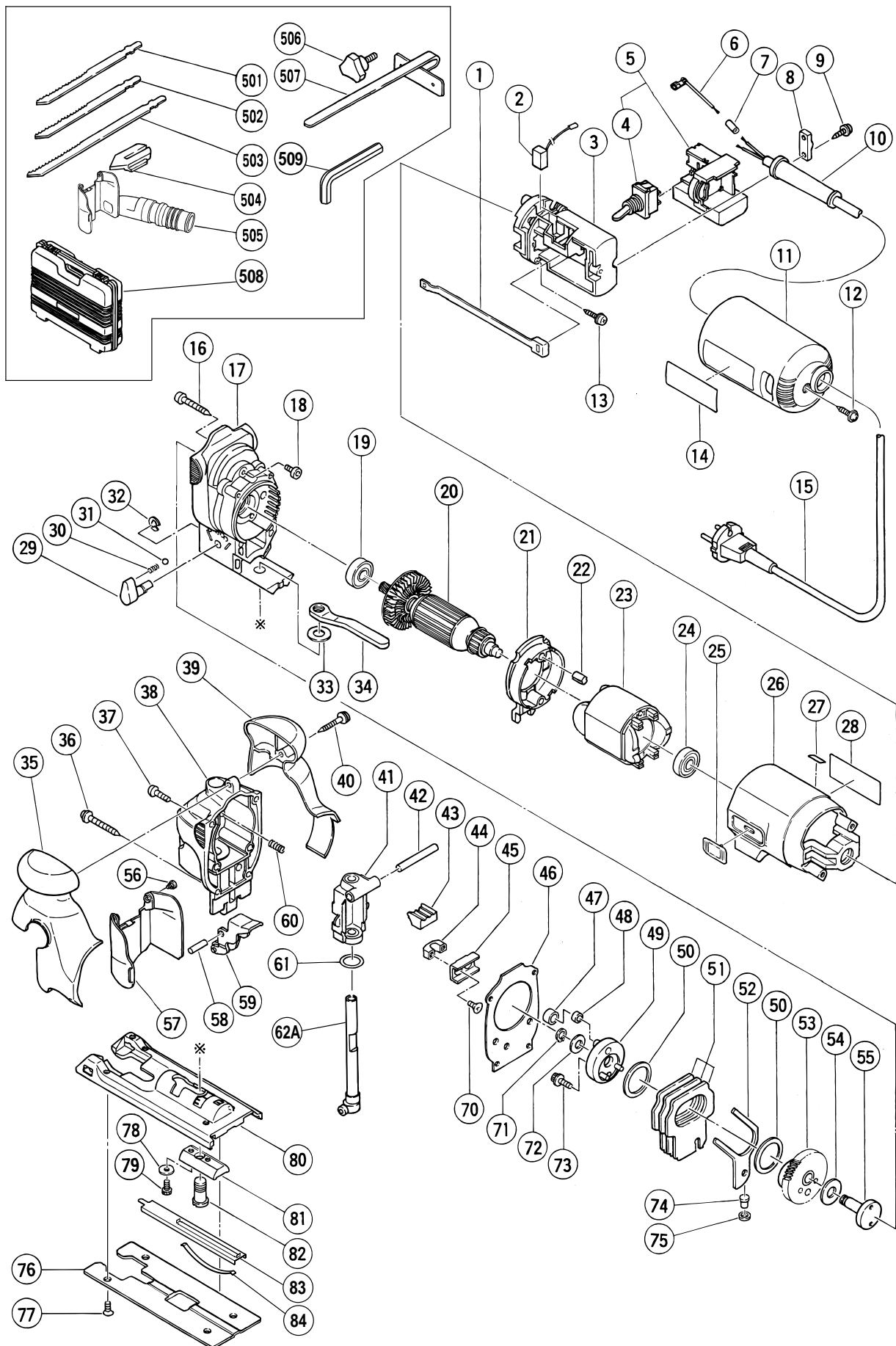
After no-load operation for 30 minutes, the no-load current value should be as specified below at a frequency of 50/60 Hz.

Voltage (V)	110	115	230
Current (A) Max.	2.7	2.6	1.3

## 11. STANDARD REPAIR TIME (UNIT) SCHEDULES

MODEL	Variable		10	20	30	40	50	60 min.
	Fixed							
CJ 110VA	General Assembly	Work Flow						
		Tail Cover Cord	Wiring Block (A) Wiring Block (B)	Gear Cover Change Knob Spring (C) Shooter Steel Ball	Housing Stator			
				Fan Guide Ass'y Ball Bearing (608DDW) Ball Bearing (608DDM) Armature				
		Cover (A) Cover (B)		Weight Holder Washer (A) x 2 Packing Balance Weight x 3 Orbital Cam Gear Spindle Orbital Pin Felt	Upper Cover Plunger Holder Ass'y Pin (D6 x 47) Rubber Packing Connecting Piece Connector Connector Holder Rubber Cushion Spring Guide Roller Needle Plunger O-Ring (P-16)			
		Base Sub Base (A) Plate Spring Spacer Base Locker						

# Assembly Diagram for CJ 110VA



# PARTS

CJ 110VA

ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS	
1	305-731	SLIDE BAR	1		
2	999-075	CARBON BRUSH (AUTO STOP TYPE) (1 PAIR)	2		
3	305-763	WIRING BLOCK (A)	1		
4	303-082	SWITCH	1		
* 5	305-766	WIRING BLOCK (B) ASS'Y	1	INCLUD.4	
* 5	305-765	WIRING BLOCK (B) ASS'Y	1	INCLUD.4 FOR GBR (110V)	
6	305-764	INTERNAL WIRE	2		
* 7	981-373	TUBE (D)	2	FOR CORD	
* 7	959-142	CONNECTOR 50096 (10 PCS.)	2		
8	960-266	CORD CLIP	1		
9	305-812	TAPPING SCREW (W/FLANGE) D4X16 (BLACK)	2		
* 10	953-327	CORD ARMOR D8.8	1		
* 10	938-051	CORD ARMOR D10.1	1		
11	305-770	TAIL COVER	1		
12	309-470	TAPPING SCREW (W/FLANGE) D4X12 (BLACK)	1		
13	984-750	TAPPING SCREW (W/FLANGE) D4X16	2		
14		HITACHI LABEL	1		
* 15	500-234Z	CORD	1	(CORD ARMOR D8.8)	
* 15	500-439Z	CORD	1	(CORD ARMOR D8.8) FOR NZL	
* 15	500-436Z	CORD	1	(CORD ARMOR D10.1) FOR GBR	
* 15	500-395Z	CORD	1	(CORD ARMOR D8.8) FOR SUI	
16	954-014	TAPPING SCREW D4X30	2		
17	316-108	GEAR COVER	1		
18	305-735	HEX. SOCKET HD. BOLT (W/FLANGE) M4X6	2		
19	608-DDW	BALL BEARING 608DDW	1		
* 20	360-277C	ARMATURE 110V-115V	1		
* 20	360-277E	ARMATURE 220V-230V	1		
21	305-729	FAN GUIDE ASS'Y	1	INCLUD.22	
22	994-343	RUBBER BUSHING	2		
* 23	340-249C	STATOR 110V-115V	1		
* 23	340-249E	STATOR 220V-230V	1		
24	608-DDM	BALL BEARING 608DDC2PS2L	1		
25	305-732	SLIDE KNOB	1		
26	305-728	HOUSING	1		
27		LABEL (CE MARK) (A)	1		
28		NAME PLATE	1		
29	305-744	CHANGE KNOB	1		
30	982-454	SPRING (C)	1		
31	959-155	STEEL BALL D3.97 (10 PCS.)	1		
32	673-489	RETAINING RING (E-TYPE) FOR D5 SHAFT	1		
33	981-077	WASHER	1		
34	316-125	BASE HANDLE	1		
35	305-756	COVER (A)	1		
36	305-736	TAPPING SCREW (W/FLANGE) D4X65	2		
37	949-219	MACHINE SCREW M4X16 (10 PCS.)	2		
38	316-109	UPPER COVER	1		
39	305-757	COVER (B)	1		
40	307-028	TAPPING SCREW (W/FLANGE) D4X25 (BLACK)	1		
41	316-110	PLUNGER HOLDER ASS'Y	1	INCLUD.61	
42	961-181	PIN D6X47	1		
43	305-751	RUBBER CUSHION	1		



## PARTS

## CJ 110VA

[illegible]

\* : ALTERNATIVE PARTS

11 – 99

# STANDARD ACCESSORIES

CJ 110VA

ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS	
501		BLADES NO.42	1		
502		BLADES NO.46	1		
503		BLADES NO.41	1		
504	306-363	TABLE INSERT (5 PCS.)	1		
* 505	316-126	DUST COLLECTOR	1	FOR GBR,FRG	
* 506	307-767	KNOB SCREW M5X10	1	FOR FRA	
* 507	302-756	GUIDE	1	FOR FRA	
508	317-262	CASE	1		
509	943-277	HEX. BAR WRENCH 3MM	1		

# OPTIONAL ACCESSORIES

ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS	
601	879-336	JIG SAW BLADES NO.11 (5 PCS.)	1		
602	879-337	JIG SAW BLADES NO.12 (5 PCS.)	1		
603	879-338	JIG SAW BLADES NO.15 (5 PCS.)	1		
604	879-339	JIG SAW BLADES NO.16 (5 PCS.)	1		
605	879-340	JIG SAW BLADES NO.21 (5 PCS.)	1		
606	879-341	JIG SAW BLADES NO.22 (5 PCS.)	1		
607	950-482	JIG SAW BLADES NO.95 FOR STAINLESS(5PCS)	1		
608	950-480	JIG SAW BLADES NO.96 FOR STAINLESS(5PCS)	1		
609	963-400	JIG SAW BLADES NO.97 FOR STAINLESS(5PCS)	1		
610	963-390	JIG SAW BLADES (A) NO.11 (10 PCS.)	1		
611	963-391	JIG SAW BLADES (A) NO.12 (10 PCS.)	1		
612	963-392	JIG SAW BLADES (A) NO.15 (10 PCS.)	1		
613	963-393	JIG SAW BLADES (A) NO.16 (10 PCS.)	1		
614	963-394	JIG SAW BLADES (A) NO.21 (10 PCS.)	1		
615	963-395	JIG SAW BLADES (A) NO.22 (10 PCS.)	1		
616	950-483	JIG SAW BLADES NO.95 FOR STAINLESS(10PCS)	1		
617	950-481	JIG SAW BLADES NO.96 FOR STAINLESS(10PCS)	1		
618	879-227	JIG SAW BLADES (LONG) 160MM (3 PCS.)	1		
619	305-955	GUIDE ASS'Y	1		
620	305-956	CIRCULAR GUIDE ASS'Y	1		
621	316-126	DUST COLLECTOR	1		
622		BENCH STAND (TR12-B)	1		