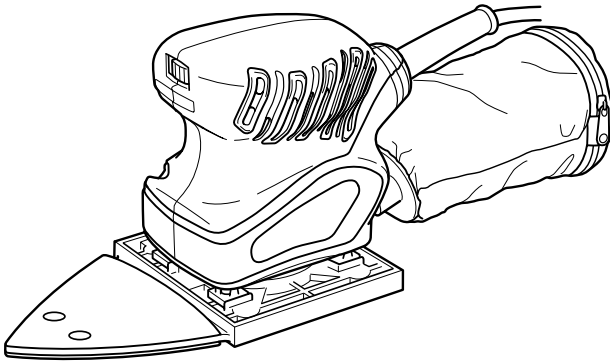


# HITACHI

## Orbital Sander Model SV 12SH

### Handling instructions



**Note:**

Before using this Electric Power Tool, carefully read through these HANDLING INSTRUCTIONS to ensure efficient, safe operation. It is recommended that these INSTRUCTIONS be kept readily available as an important reference when using this power tool.



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## GENERAL SAFETY RULES

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### WARNING!

#### Read all instructions

Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

The term "power tool" in all of the warnings listed below refers to your mains operated (corded) power tool or battery operated (cordless) power tool.

### SAVE THESE INSTRUCTIONS

#### 1) Work area

- a) **Keep work area clean and well lit.**  
*Cluttered and dark areas invite accidents.*
- b) **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.**  
*Power tools create sparks which may ignite the dust of fumes.*
- c) **Keep children and bystanders away while operating a power tool.**  
*Distractions can cause you to lose control.*

#### 2) Electrical safety

- a) **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.**  
*Unmodified plugs and matching outlets will reduce risk of electric shock.*
- b) **Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators.**  
*There is an increased risk of electric shock if your body is earthed or grounded.*
- c) **Do not expose power tools to rain or wet conditions.**  
*Water entering a power tool will increase the risk of electric shock.*
- d) **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.**  
*Damaged or entangled cords increase the risk of electric shock.*
- e) **When operating a power tool outdoors, use an extension cord suitable for outdoor use.**  
*Use of a cord suitable for outdoor use reduces the risk of electric shock.*
- f) **Recommendation for the use of residual current device with a rated residual current of 30mA or less.**

#### 3) Personal safety

- a) **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.**  
*A moment of inattention while operating power tools may result in serious personal injury.*
- b) **Use safety equipment. Always wear eye protection. Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.**

- c) **Avoid accidental starting. Ensure the switch is in the off position before plugging in.**

*Carrying power tools with your finger on the switch or plugging in power tools that have the switch on invites accidents.*

- d) **Remove any adjusting key or wrench before turning the power tool on.**

*A wrench or a key left attached to a rotating part of the power tool may result in personal injury.*

- e) **Do not overreach. Keep proper footing and balance at all times.**

*This enables better control of the power tool in unexpected situations.*

- f) **Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts.**

*Loose clothes, jewellery or long hair can be caught in moving parts.*

- g) **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.**

*Use of these devices can reduce dust related hazards.*

#### 4) Power tool use and care

- a) **Do not force the power tool. Use the correct power tool for your application.**

*The correct power tool will do the job better and safer at the rate for which it was designed.*

- b) **Do not use the power tool if the switch does not turn it on and off.**

*Any power tool that cannot be controlled with the switch is dangerous and must be repaired.*

- c) **Disconnect the plug from the power source before making any adjustments, changing accessories, or storing power tools.**

*Such preventive safety measures reduce the risk of starting the power tool accidentally.*

- d) **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.**

*Power tools are dangerous in the hands of untrained users.*

- e) **Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools' operation.**

**If damaged, have the power tool repaired before use.**

*Many accidents are caused by poorly maintained power tools.*

- f) **Keep cutting tools sharp and clean.**

*Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.*

- g) **Use the power tool, accessories and tool bits etc., in accordance with these instructions and in the manner intended for the particular type of power tool, taking into account the working conditions and the work to be performed.**

*Use of the power tool for operations different from intended could result in a hazardous situation.*

#### 5) Service

- a) **Have your power tool serviced by a qualified repair person using only identical replacement parts.**

*This will ensure that the safety of the power tool is maintained.*

## PRECAUTION

Keep children and infirm persons away.

When not in use, tools should be stored out of reach of children and infirm persons.

## SPECIFICATIONS

Voltage (by areas)*	(110 V, 120 V, 220 V, 230 V, 240 V) ~
Power Input	200 W*
No-load speed	14000 min <sup>-1</sup>
Sanding pad size	110 mm × 190 mm
Sanding paper size	110 mm × 100 mm (Square), 96 mm × 96 mm × 96 mm (Triangle)
Weight (without cord)	1.0 kg

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

## STANDARD ACCESSORIES

- 110 × 100 mm Velcro type sanding paper (Square) ..... 1
- 96 × 96 × 96 mm Velcro type sanding paper (Triangle) ..... 2
- Dust bag ..... 1

Standard accessories are subject to change without notice.

## OPTIONAL ACCESSORIES (sold separately)

### 1. Sanding paper

- 110 × 100 mm Velcro type sanding paper (Square)  
Grain: AA60, AA100, AA150
- 96 × 96 × 96 mm Velcro type sanding paper (Triangle)  
Grain: AA60, AA100, AA150

### 2. Punch plate

Optional accessories are subject to change without notice.

## APPLICATIONS

Mainly used for the following purposes at corners or gaps.

- Finish polishing of woodwork surfaces
- Sanding surfaces of woodwork or sheet metal prior to painting, etc.

## PRIOR TO OPERATION

### 1. Power source

Ensure that the power source to be utilized conforms to the power requirements specified on the product nameplate.

### 2. Power switch

Ensure that the power switch is in the OFF position. If the plug is connected to a receptacle while the power switch is in the ON position, the power tool will start operating immediately, which could cause a serious accident.

### 3. Extension cord

When the work area is removed from the power source, use an extension cord of sufficient thickness and rated capacity. The extension cord should be kept as short as practicable.

### 4. Installing the sanding paper

- (1) Align the sanding paper's holes with the pad's holes (Fig. 1).

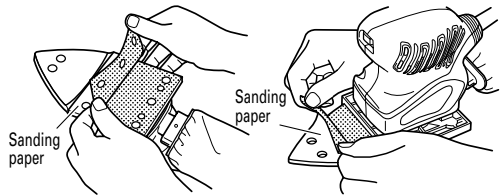


Fig. 1

- (2) Strongly push the sanding paper with the palm of your hand to fasten it securely in place (Fig. 2).

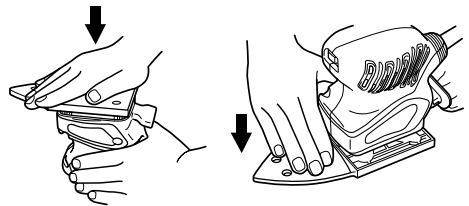


Fig. 2

### 5. Attaching and Removing the Dust Bag

- (1) Attaching the Dust Bag

As shown in Fig. 3, hold the dust gate and push it in the direction of Arrow A to attach it to the dust outlet.

- (2) Removing the Dust Bag

As shown in Fig. 3, hold the dust gate and pull it in the direction of Arrow B to remove it from the dust outlet.

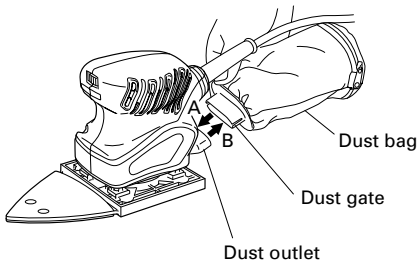


Fig. 3

**CAUTION**

Prior to the sanding operation, make sure the material of surface you are going to sand. If the surface under sanding operation is expected to generate harmful / toxic dusts such as lead painted surface, make sure the dust bag or appropriate dust extraction system is connected with dust outlet tightly. Wear the dust mask additionally, if available. Do not inhale or touch the harmful / toxic dusts generated in sanding operation, the dust can endanger the health of yourself and bystanders.

**PRACTICAL OPERATING PROCEDURES**

**CAUTION**

Never apply water or grinding fluid when sanding. This could result in electrical shock.

**1. Switching the sander ON and OFF**

The power can be turned on by setting the lever to ON (1) and turned off by setting the lever to OFF (0).

**CAUTION**

Never turn the power switch ON when the sander is contacting the surface to be sanded. This is necessary to preclude damage to the material. The same applies when switching the power OFF.

**2. How to hold the orbital sander**

While gripping the housing, lightly press the sander against the surface to be sanded so that the sanding paper uniformly contacts the surface, as shown in Fig. 4. DO NOT apply excessive pressure to the sander while sanding. Excessive-pressure may cause overload of the motor, reduced service life of the sanding paper, and lowered sanding or polishing efficiency.

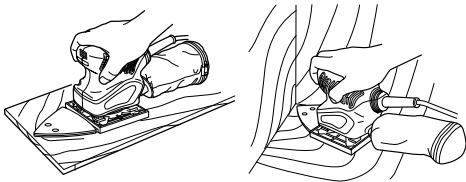


Fig. 4

**CAUTION**

Do not press on the corner of the pad with excessive force. It may cause damage to the pad itself.

**3. How to move the orbital sander**

For optimum operating efficiency, alternately move the sander forward and backward at a constant speed and balance.

**4. After installing new sanding paper**

Movement of the sander may tend to become unsteady after new sanding paper has been installed, because of the new, coarse grain of the paper. This can be avoided by slightly tilting the sander forward or backward during sanding or polishing. Sander movement will become steady as the sanding paper surface becomes properly abraded.

**MOUNTING THE OPTIONAL ACCESSORIES**

○ **Making a Hole in the Sanding Paper with the Punch Plate (Fig. 5)**

When using sanding paper without holes in it, punch holes in it with the punch plate to improve dust collecting capacity.

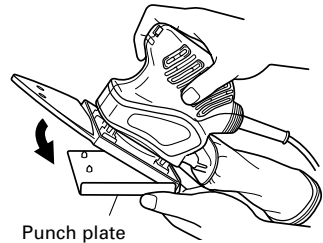


Fig. 5

**MAINTENANCE AND INSPECTION**

**1. Emptying and cleaning the Dust Bag**

If the dust bag contains too much saw dust, dust collection will be affected. Empty the dust bag when it gets full.

Remove the dust bag, open the fastener, and dispose of the contents.

**2. Inspecting the sanding paper**

Since use of worn-out sanding paper will degrade efficiency and cause possible damage to the pad, replace the sanding paper as soon as excessive abrasion is noted.

**3. Inspecting the mounting screws**

Regularly inspect all mounting screws and ensure that they are properly tightened. Should any of the screws be loose, retighten them immediately. Failure to do so could result in serious hazard.

**4. Maintenance of the motor**

The motor unit winding is the very "heart" of the power tool. Exercise due care to ensure the winding does not become damaged and/or wet with oil or water.

**5. Replacing supply cord**

If the supply cord of Tool is damaged, the Tool must be returned to Hitachi Authorized Service Center for the cord to be replaced.

**6. Servicing**

Consult an authorized Service Agent in the event of power tool failure.

## **7. Service parts list**

- A: Item No.
- B: Code No.
- C: No. Used
- D: Remarks

### **CAUTION**

Repair, modification and inspection of Hitachi Power Tools must be carried out by a Hitachi Authorized Service Center.

This Parts List will be helpful if presented with the tool to the Hitachi Authorized Service Center when requesting repair or other maintenance.

In the operation and maintenance of power tools, the safety regulations and standards prescribed in each country must be observed.

### **MODIFICATIONS**

Hitachi Power Tools are constantly being improved and modified to incorporate the latest technological advancements.

Accordingly, some parts (i.e. code numbers and/or design) may be changed without prior notice.

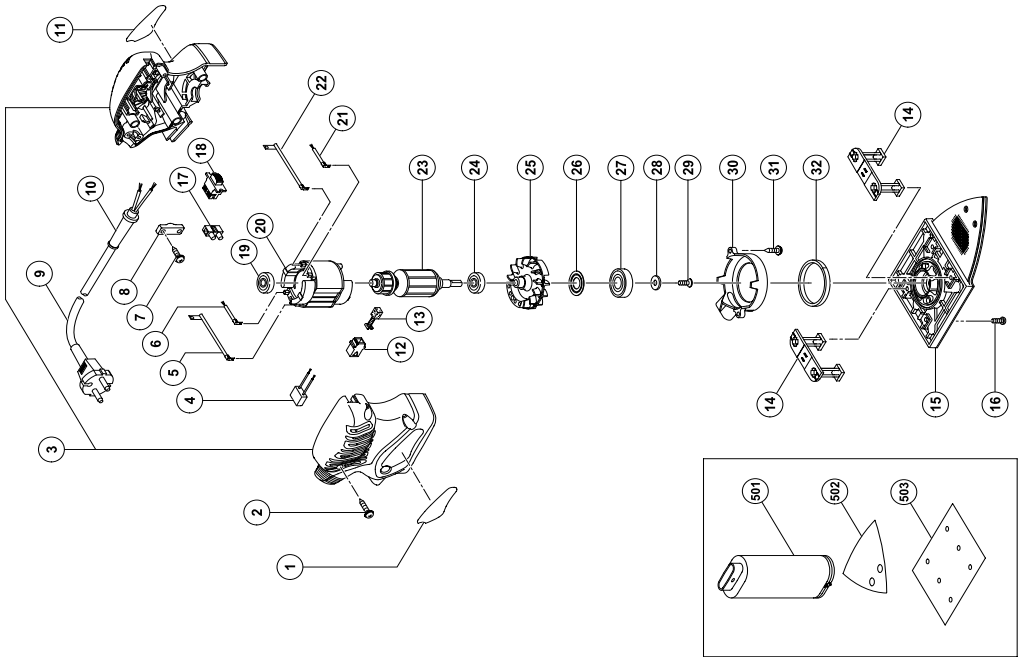
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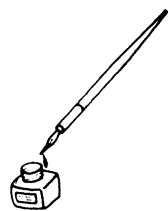
### **NOTE**

Due to HITACHI's continuing program of research and development, the specifications herein are subject to change without prior notice.

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A	B	C	D
1		1	
2	301-653	4	D4x20
3	322-766	1	
4	930-039	1	
5	322-764	1	
6	322-761	1	
7	984-750	2	D4x16
8	937-631	1	
9		1	
10	953-327	1	D8.8
11		1	
12	930-483	2	
13	999-041	2	
14	322-756	2	
15	324-081	1	
16	324-082	4	M4x10
17	938-307	1	
18	311-948	1	
19	626-VVM	1	626VVC2PS2L
20-1	340-578C	1	110V
20-2	340-578D	1	120V
20-3	340-578E	1	220V-230V
20-4	340-578F	1	240V
21	322-762	1	
22	322-763	1	
23-1	360-637C	1	110V
23-2	360-637U	1	120V "19, 24"
23-3	360-637E	1	220V-230V
23-4	360-637F	1	240V
24	629-VVM	1	629VVC2PS2L
25	322-757	1	
26	993-052	1	
27	600-1DD	1	6001DDCMPS2L
28	987-169	1	
29	993-244	1	M4x12
30	322-758	1	
31	984-750	2	D4x16
32	311-946	1	
501	310-339	1	
502	323-969	2	
503	310-345	1	





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