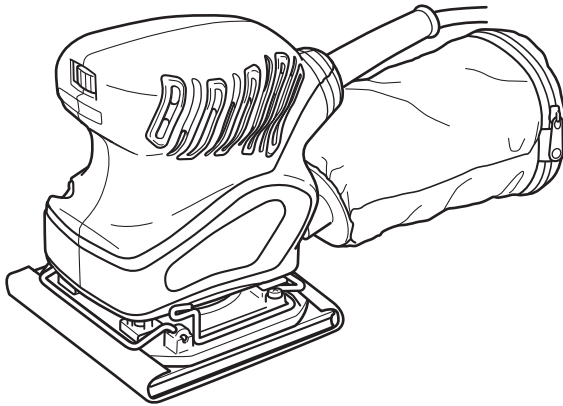


# **HiKOKI**

## **Orbital Sander Model SV 12SG**

### 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.



## GENERAL POWER TOOL SAFETY WARNINGS

### WARNING

Read all safety warnings and all instructions.

Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference. The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

#### 1) Work area safety

- a) **Keep work area clean and well lit.**  
*Cluttered or 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 or 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) **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.**  
*Use of an RCD reduces the risk of electric shock.*

#### 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 personal protective equipment. Always wear eye protection.**  
*Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.*
- c) **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.**

*Carrying power tools with your finger on the switch or energising 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 dust collection 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 and/or the battery pack from the power tool 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 tool's 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, taking into account the working conditions and the work to be performed.**  
*Use of the power tool for operations different from those 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	180 W*
No-load speed	14000 /min
Sanding pad size	110 mm × 100 mm
Sanding paper size	114 mm × 140 mm
Weight (without cord)	1.1 kg

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

## STANDARD ACCESSORIES

- Sanding paper ..... 1
  - Dust bag ..... 1
- Standard accessories are subject to change without notice.

## OPTIONAL ACCESSORIES (sold separately)

### 1. Sanding paper

- 114 × 140 mm paper clip type sanding paper  
Grain: AA60, AA100, AA150
- 110 × 100 mm Velcro type sanding paper  
Grain: AA60, AA100, AA150
- 110 × 100 mm stick-on type sanding paper  
Grain: AA60, AA80, AA100, AA120, AA150, AA180
- Outer diameter 125 mm stick-on type sanding paper  
Grain: AA60

### 2. Sanding pad

- 110 × 100 mm sponge pad (Velcro type)
- 110 × 100 mm stick-on pad
- Outer diameter 125 mm stick-on pad

### 3. Punch plate

Optional accessories are subject to change without notice.

## APPLICATIONS

- 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) Bending the sanding paper:

Position the sander with its pad side facing upward as shown in **Fig. 1**. Place the sanding paper on the pad so that the center of the sanding paper is aligned with the center of the pad, and bend both ends of the sanding paper at a 90° angle. Then, bend both ends again in the manner shown in **Fig. 2**. The sanding paper is now ready to be installed on the sander.

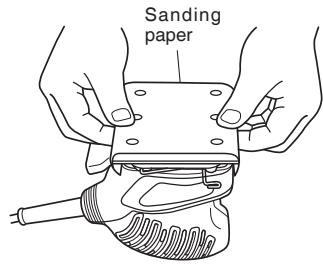


Fig. 1

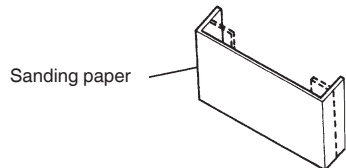


Fig. 2

### (2) Installing the sanding paper:

While ensuring that the cord is not bent, place the sander on a workbench as shown in **Fig. 3**, and insert one end of the sanding paper (bent section). Next, insert the remaining bent section in the same manner.

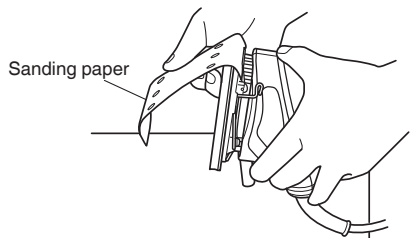


Fig. 3

## CAUTION

The sanding paper must be precisely installed on the pad, ensuring that there is ample tension (leaving no slack). Loosely installed sanding paper could result in unevenly sanded surfaces and/or damage to the sanding paper itself.

## 5. Attaching and Removing the Dust Bag

### (1) Attaching the Dust Bag

As shown in **Fig. 4**, 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. 4**, hold the dust gate and pull it in the direction of Arrow B to remove it from the dust outlet.

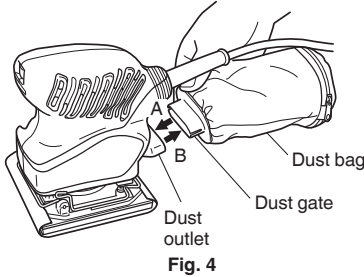


Fig. 4

## 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.

## 6. RCD

The use of a residual current device with a rated residual current of 30mA or less at all times is recommended.

## 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. 5**. 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.

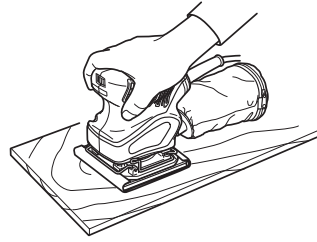


Fig. 5

### 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

### 1. Attaching a Sponge Pad (Velcro type) or a Stick-on pad

Loosen the M4 × 10 screws (4) and remove the attached pad. Next, attach a sponge pad (Velcro type) or a stick-on pad.

### CAUTION

Replace the pad only. Use the other parts without removing them.

### 2. Attaching Velcro Type Sanding Paper or Stick-on Type sanding Paper

Match the sanding paper's hole with the pad's hole and strongly push the sanding paper with the palm of your hand to fasten it securely in place.

### 3. Making a Hole in the Sanding Paper with the Punch Plate (Fig. 6)

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

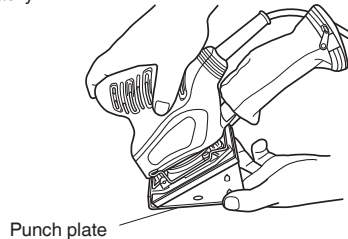


Fig. 6

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## MAINTENANCE AND INSPECTION

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### 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 a 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 HiKOKI 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 HiKOKI Power Tools must be carried out by an HiKOKI Authorized Service Center.

This Parts List will be helpful if presented with the tool to the HiKOKI 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

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

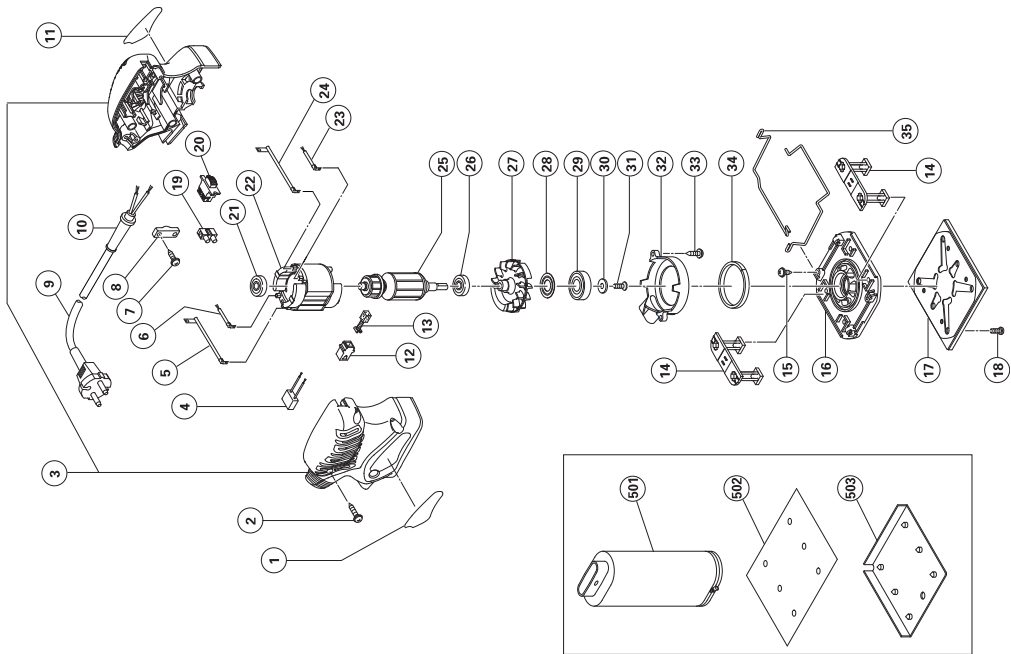
Accordingly, some parts (i.e. code numbers and/or design) may be changed without prior notice.

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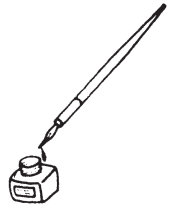
## NOTE

Due to HiKOKI'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	301-653	4	D4x20
2	322-766	1	
3	930-039	1	
4	322-764	1	
5	322-761	1	
6	984-750	2	D4x16
7	937-631	1	
8	953-327	1	D8.8
9	930-483	2	
10	999-041	2	
11	322-756	2	
12	311-945	2	D4x10
13	322-759	1	
14	310-354	1	
15	310-355	1	"FRA, BEL, SUJ"
16	949-216	4	M4x10
17	938-307	1	
18	311-948	1	
19	626-VVM	1	626VVC2PS2L
20	340-578C	1	110V
21	340-578D	1	120V
22	340-578E	1	220V-230V
23	340-578F	1	240V
24	322-762	1	
25	322-763	1	
26	360-637C	1	110V
27	360-637U	1	120V "21, 26"
28	360-637E	1	220V-230V
29	360-637F	1	240V
30	629-VVM	1	629VVC2PS2L
31	322-757	1	
32	993-052	1	
33	600-1DD	1	6001DDC MPS2L
34	987-169	1	M4x12
35	993-244	1	
501	984-750	2	D4x16
502	311-946	1	
503	322-760	1	
504	310-339	1	
505	310-342	1	
506	310-345	1	"FRA, BEL, SUJ"
507	310-340	1	



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