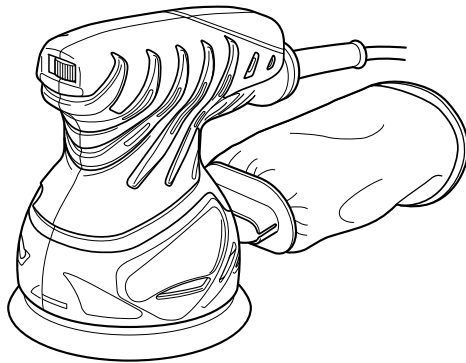


HITACHI

Random Orbit Sander SV 13YA • SV 13YB

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.



SYMBOLS

When symbols are used on the machine, refer to the followings to understand the meaning.

V	volts	min	minutes
A	amperes	s	seconds
Hz	hertz	n_0	no-load speed
W	watts	.../min or ...min ⁻¹	Revolutions or reciprocations per minute
kW	kilowatts	\equiv or d.c.	direct current
g	grams	\sim or a.c.	Alternating current
kg	kilograms	\square	class II 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

- Keep work area clean and well lit.**
Cluttered or dark areas invite accidents.
- 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.
- Keep children and bystanders away while operating a power tool.**
Distractions can cause you to lose control.

2) Electrical safety

- 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.
- 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.
- Do not expose power tools to rain or wet conditions.**
Water entering a power tool will increase the risk of electric shock.
- 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.
- 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.

- 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

- 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.
- 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.
- 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.
- 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.
- Do not overreach. Keep proper footing and balance at all times.**
This enables better control of the power tool in unexpected situations.
- 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.
- 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

- 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

Model	SV13YA	SV13YB
Voltage (by areas)*	(110 V, 120 V, 127 V, 220 V, 230 V, 240 V) ~	
Power Input	230 W*	
No-load speed	7000 – 12000 min ⁻¹	12000 min ⁻¹
Sanding pad size (Outer diameter)	125 mm	
Sanding paper size (Outer diameter)	125 mm	
Weight (without cord)	1.4 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

Grain: AA40, AA60, AA80, AA120, AA180, AA240, AA320, AA400

2. Polyester buff

Optional accessories are subject to change without notice.

APPLICATIONS

- Roughing or finishing of woodwork and metal surfaces.
- Preliminary sanding of woodwork and metal surfaces before painting.
- Paint removal.
- Rust removal.

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

Since the attachment is a hook-and-loop type, the sanding paper can be installed easily by just pressing it onto the pad. When installing the sanding paper, in order to match it to the holes in the pad, gently fold it along the axis of two holes as shown in **Fig. 1**.

Next, use the holes along the fold as a guide to match the sanding paper and the pad. Finally, press the entire sanding paper uniformly onto the pad.

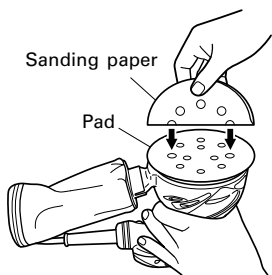


Fig. 1

5. Attaching and Removing the Dust Bag

(1) Attaching the Dust Bag

As shown in Fig. 2, 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. 2, hold the dust gate and pull it in the direction of Arrow B to remove it from the dust outlet.

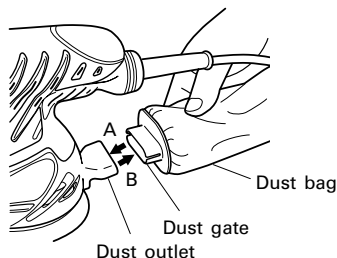


Fig. 2

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. Adjustment of speed (SV13YA only)

The SV13YA is equipped with the electric control circuit which enables non-step speed control. To adjust the speed, turn the dial shown in Fig. 3. When the dial is set to "1", the sander operates at the minimum speed (7000 min⁻¹). When the dial is set to "6", the sander operates at the maximum speed (12000 min⁻¹). Adjust the speed according to the material to be cut and working efficiency.

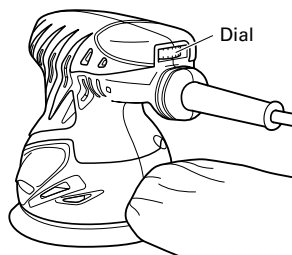


Fig. 3

By adjusting the dial, match the speed to the material and type of work.

Material	Grain		Dial scale
	Rough grinding	Fine grinding	
Paintwork:			
Sanding	180	400	3 - 6
Repairs (scratches, rust spots)	120	240	2 - 4
Stripping	40	80	2 - 4
Wood:			
Softwood	60 - 80	240	3 - 6
Hardwood	60	180	3 - 5
Veneers	240	320	2 - 4
Metals:			
Aluminium	80	240	2 - 4
Steel	60	240	3 - 6
Stainless steel	120	240	3 - 6

Note: Please use this table as a standard.

7. RCD

The use of a residual current device with a rated residual current of 30 mA 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 random orbit 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.

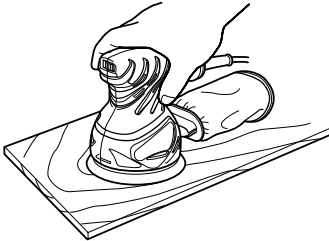


Fig. 4

3. How to move the random orbit sander

Move the sander by either moving it up and down or by moving it in circles while gradually progressing in a sideways direction (Figs. 5 and 6).

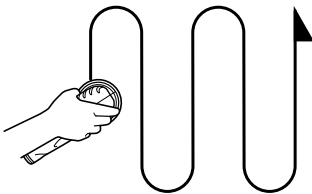


Fig. 5

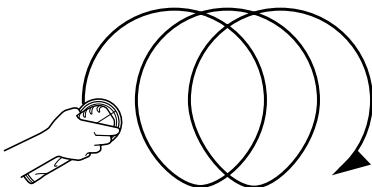


Fig. 6

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

○ Mounting the polyester buff

Since the attachment is a hook-and-loop type as with the sanding paper, the polyester buff can be mounted by just pressing it onto the pad (Fig. 7).

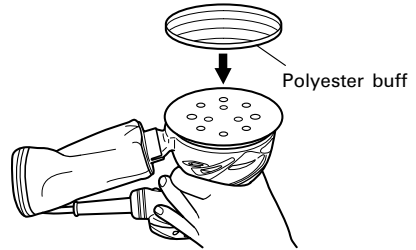


Fig. 7

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 an 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

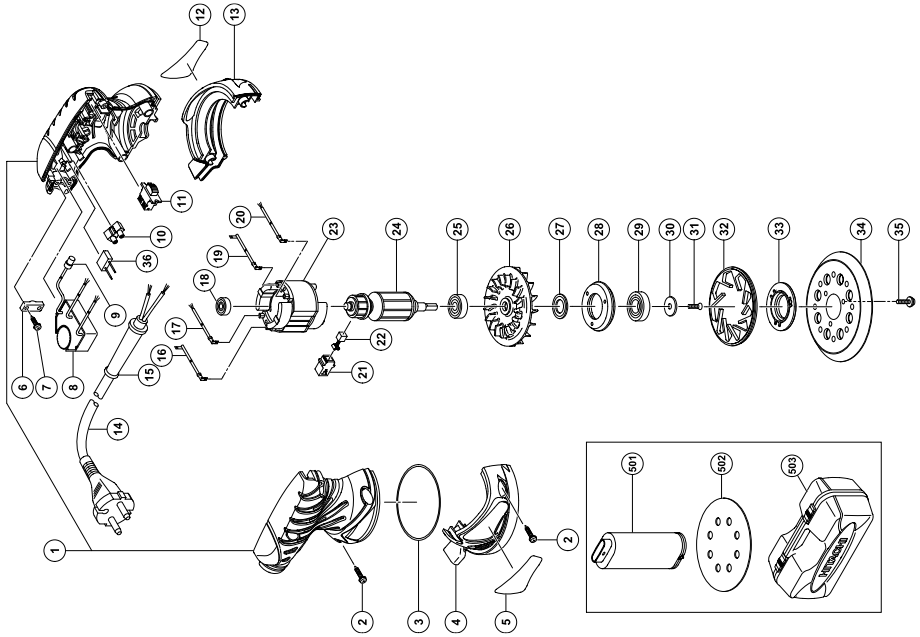
Hitachi Power Tools are constantly being improved and modified to incorporate the latest technological advancements.

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

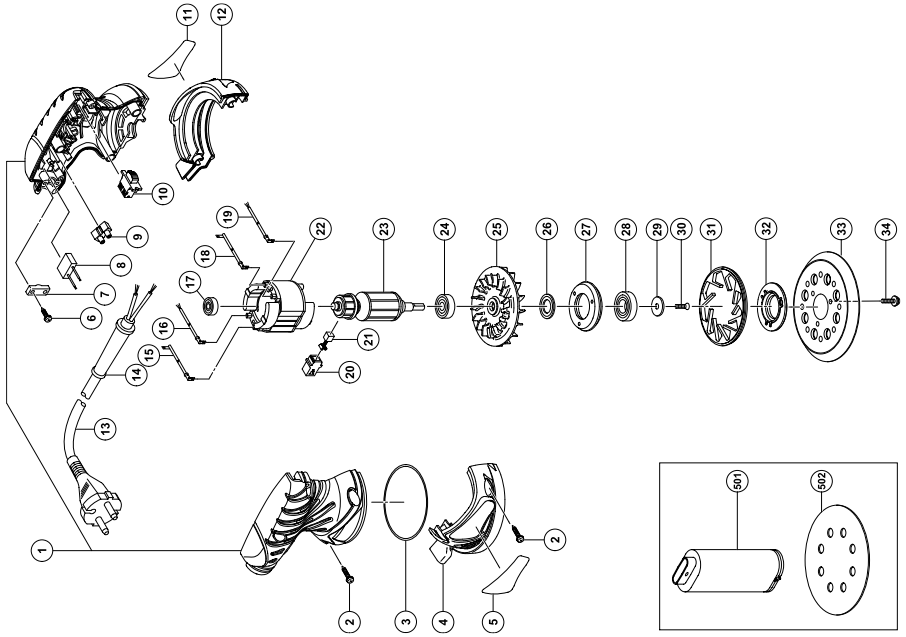
NOTE

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

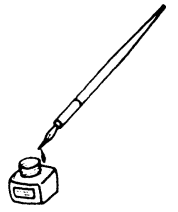
SV13YA

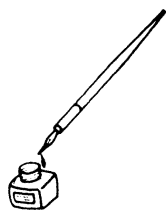


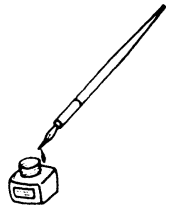
A	B	C	D
1	324-249	1	
2	301-653	7	D4 x 20
3	993-195	1	
4	324-207	1	
5	_____	1	
6	937-631	1	
7	984-750	2	D4 x 16
8-1	324-245	1	110V
8-2	324-248	1	220V
8-3	324-244	1	230V
8-4	324-247	1	240V
9	959-140	1	
10	938-307	1	
11	311-948	1	
12	_____	1	
13	324-206	1	
14	_____	1	
15	953-327	1	D8.8
16	322-764	1	
17	322-761	1	
18	626-VVM	1	626VVC2PS2L
19	322-763	1	
20	322-762	1	
21	930-483	2	
22	999-041	2	
23-1	340-616C	1	110V
23-2	340-616E	1	220V-230V
23-3	340-616F	1	240V
24-1	360-696C	1	110V
24-2	360-696E	1	220V-230V
24-3	360-696F	1	240V
25	629-VVM	1	629VVC2PS2L
26	324-521	1	
27	324-208	1	
28	324-212	1	
29	600-2DW	1	6002DDWCMPS2L
30	309-422	1	
31	993-244	1	M4 x 12
32	324-210	1	
33	324-211	1	
34	324-209	1	
35	307-109	3	M4 x 16
36	930-039	1	
501	310-339	1	
502	308-519	1	A-P120
503	324-613	1	



A	B	C	D
1	324-214	1	
2	301-653	7	D4 x 20
3	993-195	1	
4	324-207	1	
5	_____	1	
6	984-750	2	D4 x 16
7	937-631	1	
8	930-039	1	
9	938-307	1	
10	311-948	1	
11	_____	1	
12	324-206	1	
13	_____	1	
14	953-327	1	D8.8
15	322-764	1	
16	322-761	1	626VVC2PS2L
17	626-VVM	1	
18	322-763	1	
19	322-762	1	
20	930-483	2	
21	999-041	2	
22-1	340-618C	1	110V
22-2	340-618E	1	220V-230V
22-3	340-618F	1	240V
23-1	360-698C	1	110V
23-2	360-698E	1	220V-230V
23-3	360-698F	1	240V
24	629-VVM	1	629VVC2PS2L
25	324-521	1	
26	324-208	1	
27	324-212	1	
28	600-2DW	1	6002DDWCMP2L
29	309-422	1	
30	993-244	1	M4 x 12
31	324-210	1	
32	324-211	1	
33	324-209	1	
34	307-109	3	M4 x 16
501	310-339	1	A-P120
502	308-519	1	







 **Hitachi Koki Co., Ltd.**

Shinagawa Intercity Tower A, 15-1, Konan 2-chome,
Minato-ku, Tokyo, Japan

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