

HITACHI

ELECTRIC DISC SANDER

TYPE SAH-180

INSTRUCTION MANUAL



7-2-1

Read this manual before using the tool. It contains important safety information. It also contains important information on the correct use of the tool. The manual is an important part of the tool. It should be read and understood before using the tool. It should be read and understood before using the tool.



DOUBLE INSULATION



HITACHI

We sincerely thank you for selecting a HITACHI ELECTRIC POWER TOOL. To operate this electric power tool safely and efficiently, please read this INSTRUCTION MANUAL carefully to get a good understanding of the precautions in operation, the capacity of the electric power tool, uses and the like.

IMPORTANT INFORMATION

SAFETY RULES FOR POWER TOOLS

1. **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
2. **AVOID DANGEROUS ENVIRONMENT.** Don't expose power tools to rain. Don't use power tool in damp or wet locations. And keep work area well lit.
3. **KEEP CHILDREN AWAY.** All visitors should be kept safe distance from work area.
4. **STORE IDLE TOOLS.** When not in use, tools should be stored in drv., high or locked-up place out of reach of children.
5. **DON'T FORCE TOOL.** It will do the job better and safer at the rate for which it was designed.
6. **USE RIGHT TOOL.** Don't force small tool or attachment to do the job of a heavy duty tool.
7. **WEAR PROPER APPAREL.** No loose clothing or jewelry to get caught in moving parts. Rubber gloves and footwear are recommended when working outdoors.
8. **USE SAFETY GLASSES** with most tools. Also face or dust mask if cutting operation is dusty.
9. **DON'T ABUSE CORD.** Never carry tool by cord or yank it to disconnect from receptacle. Keep cord from heat, oil and sharp edges.
10. **SECURE WORK.** Use clamps or a vise to hold work. It's safer than using your hand and it frees both hands to operate tool.
11. **DON'T OVERREACH.** Keep proper footing and balance at all times.
12. **MAINTAIN TOOLS WITH CARE.** Keep tools sharp at all times, and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
13. **DISCONNECT TOOLS.** When not in use, before servicing; when changing accessories such as blades, bits, cutters, etc.
14. **REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
15. **AVOID ACCIDENTAL STARTING.** Don't carry plugged-in tool with finger on switch. Be sure switch is off when plugging in.
16. **OUTDOOR USE EXTENSION CORDS** - When tool is used outdoors, use only extension cords suitable for use outdoors and so marked.

SERVICE AND REPAIRS

All quality tools will eventually require servicing or replacement of parts due to wear from normal use. These operations should ONLY be performed by an AUTHORIZED HITACHI POWER TOOL REPAIR SHOP.

DOUBLE INSULATION SYSTEM ASSURES SAFETY OPERATION OF POWER TOOL

To ensure safe operation of this Electric Power Tool, Hitachi has adopted double insulation system.

The term "double insulation" used here denotes an insulation system with two insulations physically separated and so arranged between electrically conductive material connected to the power supply and the outer frame accessible to contact by the operator's hand. Thus, the power tool is called double insulated tool and  mark as indicated on the name plate.



DOUBLE INSULATION

- To use this Electric Power Tool safely and efficiently, follow the precautions described below.
1. Wrong parts replacement and/or improper assembling may result in eliminating the double insulation system. Always contact your dealer or an authorized HITACHI Service Agent when assembling, disassembling or replacing the parts.

APPLICATIONS

- Grinding metal surfaces.
- Preliminary sanding of metal surfaces before painting, rust removal, removing old paint before repainting.
- Finishing woodwork, correcting projections of timbers from joints or assemblies.
- Preliminary sanding of wood surfaces before applying paint.

PREPARATION PRIOR TO OPERATION

Before using Electric Power Tool, complete the following preparations:

1. Extension cord

Use an extension cord when the work site is removed from the power supply. In this case, an extension cord of sufficient thickness shall be used. Actually, use the shortest possible extension cord. **Caution:** Damaged cord must be replaced or repaired.

2. Confirming condition of the environment

Confirm that the work site is placed under appropriate conditions conforming to prescribed precautions.

When sanding a thin steel plate, depending upon the state of the workbench, a loud noise will be created due to resounding noise from the steel plate being ground. To eliminate unwanted noise in this instance, place a rubber mat beneath the material to be ground.

BEFORE USE

Caution: Confirm the following points prior to connecting the plug to the power receptacle.

1. Confirm the applied power source

Be sure to operate the Electric Power Tool in the voltage specified on name plate.

2. Confirm that the power switch is turned OFF

If the plug is connected to the power receptacle while the power switch is turned ON, the machine starts operating unexpectedly, inviting serious accidents. Prior to using the Electric Power Tool, be sure to confirm that the power switch is turned OFF.

3. Confirming and mounting the sanding disc

Confirm that the sanding disc is mounted under the specified condition and is firmly clamped. For details, refer to the item "Assembling and Disassembling the Sanding Disc".

4. Confirm the power receptacle

If the power receptacle only loosely accepts the plug, the receptacle must be repaired. Contact the nearest electric store for repair service.

If such a faulty receptacle is used, it may cause overheating, resulting in a serious hazard.

5. Confirm the lock pin

Confirm that the lock pin is disengaged by pushing lock pin two or three times before switching the power tool on.

PRACTICAL SANDER APPLICATIONS

1. Do not heavily push the sanding disc to the surface to be ground. Grinding operation can be achieved with the machine dead weight, so maintain the sanding disc to an extent that it lightly touches the surface to be ground. When the sanding disc is pushed heavily, its revolving speed drops, creating an unevenly finished surface and causing motor seizure from overload.

2. Rather than applying the entire disc surface to the metal surface to be ground, use the sander by inclining it approximately 15°-30° to grind with the disc peripheral portion (Fig. 2).

3. Switching on the sander

Pull the trigger and push the stopper. The switch remains ON even when the trigger is released, promoting efficient, continual operation. By pulling the trigger again, the stopper turns the switch OFF.



Fig. 2

4. Precaution after use

Do not lay the sander down immediately after use in a place where there are many shavings and much dirt and dust until it has completely stopped revolving.

ASSEMBLING AND DISASSEMBLING THE SANDING DISC

Caution: Be sure to disconnect the attachment plug from the power receptacle to avoid serious trouble.



Fig. 2

- ① Always set the washer between the spindle and the rubber pad when using.
- ② As shown in Fig. 3, push in the lock pin to prevent rotation of the spindle. Then, secure the sanding disc and rubber pad by tightening the washer nut with the wrench.
- ③ To remove the sanding disc, follow the abovementioned procedure in reverse order.

Caution: Confirm that the lock pin is disengaged by pushing lock pin two or three times before switching the power tool on.

MAINTENANCE AND INSPECTION

Caution: Be sure to disconnect the plug during maintenance and inspection.

1. Inspecting the carbon brushes

The motor employs carbon brushes as expendable components.

If the brushes are worn, motor trouble may result. When brushes are worn down to the limit line, replace them with new brushes. Also, keep the carbon brushes clean, so that they can be smooth in side into the brush holders.

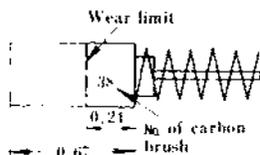


Fig. 4

When replacing carbon brushes with new brushes, be sure to use those for Hitachi Electric Disc Sander Type SAH 180 corresponding to the illustrated number (38).

To replace a carbon brush, use a minus-head screwdriver to disassemble the brush cap (Fig. 1) then remove the carbon brush together with the spring.

2. Inspecting tightness of various screws

Periodically inspect each screw tightness of individual components. If any screws are loosened, securely retighten them. Loosened screws, if unheeded, may cause a hazardous situation.

3. Maintenance of the motor

The winding part of the motor unit is the very "heart" of this device.

Exercise due care that this part is not scorred or wetted with oil.

4. Cleaning lock pin section

If the lock pin section becomes dirty, clean it at once.

5. Keeping after use

When not in use, the Electric Power Tool should be kept in a dry place out of the reach of children.

- Chloro solvent, gasoline, and thinner cause plastic to dissolve. To clean the frame, mop and wipe it with a soft cloth moistened with soapy water.

PRECAUTIONS ON USING ELECTRIC DISC SANDER

- Correct use for safe operation.
- Keep away from a revolving sanding disc.
- Wear protective glasses to protect your eyes.
- Avoid overload operation.
- Pay strict attention to sparks.
- Use the side handle to securely grip the Disc Sander.
- Do not leave the revolving the Disc Sander unattended on the floor.
- Never use grinding wheel as a disc grinder.
- Do not push in the lock pin while the spindle is running.

REPLACEMENT PARTS

When servicing use only identical replacement parts.

NAME OF PARTS

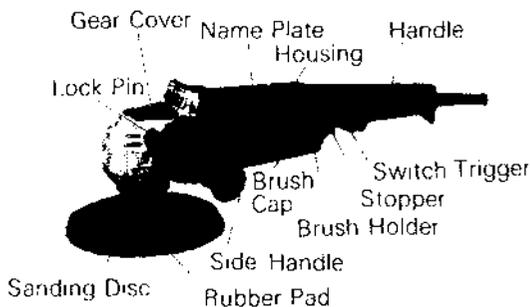


Fig. 1

SPECIFICATIONS

Motor	Protected Type, Single-Phase, Series Wound Commutator Motor
Power Source	Single Phase 115V AC 60Hz
Input	1,200W
No Load Speed	5,000 rpm
Sanding Disc Size	
external diam.	7"
internal diam.	7/8"
Weight	8.4 lbs

STANDARD ACCESSORIES

- Sanding Disc 5

Grain	Code No.								
# 24	939042	# 30	939043	# 50	939047	# 80	939049	# 120	939051

- Rubber Pad (Code No. 9532551) 1
- Wrench (Code No. 9379132) 1
- Side Handle (Code No. 500335) 1

