

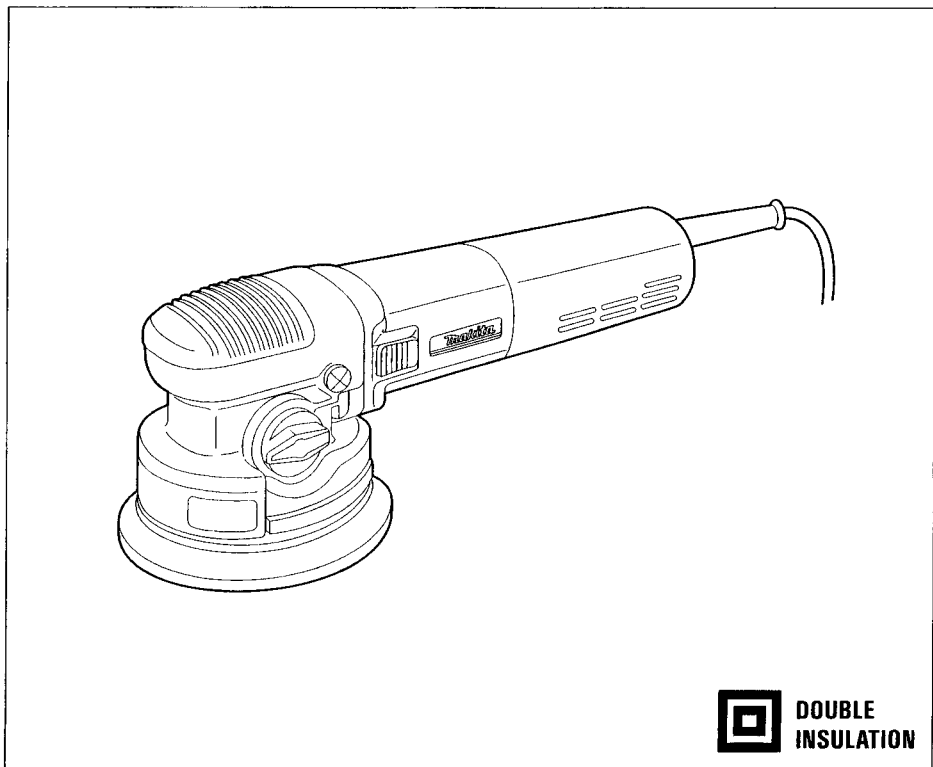


アメリカ

# Random Orbit Sander

MODEL B06040

## INSTRUCTION MANUAL



 **DOUBLE INSULATION**

### SPECIFICATIONS

Pad size	Orbits per minute	Overall length	Net weight
150 mm (6")	1,600 – 5,800	316 mm (12-1/2")	2.7 kg (5.9 lbs)

\* Manufacturer reserves the right to change specifications without notice.  
 \* Note: Specifications may differ from country to country.

**WARNING:** For your personal safety, READ and UNDERSTAND before using.  
 SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.

# GENERAL SAFETY RULES

USA002-1

## (For All Tools)

**WARNING! Read and understand all instructions.** Failure to follow all instructions listed below, may result in electric shock, fire and/or serious personal injury.

## SAVE THESE INSTRUCTIONS

### Work Area

1. **Keep your work area clean and well lit.** Cluttered benches and dark areas invite accidents.
2. **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.
3. **Keep bystanders, children, and visitors away while operating a power tool.** Distractions can cause you to lose control.

### Electrical Safety

4. **Double Insulated tools are equipped with a polarized plug (one blade is wider than the other.) This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install a polarized outlet. Do not change the plug in any way.** Double insulation  eliminates the need for the three wire grounded power cord and grounded power supply system.
5. **Avoid body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is grounded.
6. **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
7. **Do not abuse the cord. Never use the cord to carry the tools or pull the plug from an outlet. Keep cord away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately.** Damaged cords increase the risk of electric shock.
8. **When operating a power tool outside, use an outdoor extension cord marked "W-A" or "W."** These cords are rated for outdoor use and reduce the risk of electric shock.

### Personal Safety

9. **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use tool while tired or under the influence of drugs, alcohol, or medication.** A moment of inattention while operating power tools may result in serious personal injury.
10. **Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts.** Loose clothes, jewelry or long hair can be caught in moving parts.

11. **Avoid accidental starting. Be sure switch is off before plugging in.** Carrying tools with your finger on the switch or plugging in tools that have the switch on invites accidents.
12. **Remove adjusting keys or wrenches before turning the tool on.** A wrench or a key that is left attached to a rotating part of the tool may result in personal injury.
13. **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of the tool in unexpected situations.
14. **Use safety equipment. Always wear eye protection.** Dust mask, non-skid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.

#### **Tool Use and Care**

15. **Use clamps or other practical way to secure and support the workpiece to a stable platform.** Holding the work by hand or against your body is unstable and may lead to loss of control.
16. **Do not force tool. Use the correct tool for your application.** The correct tool will do the job better and safer at the rate for which it is designed.
17. **Do not use tool if switch does not turn it on or off.** Any tool that cannot be controlled with the switch is dangerous and must be repaired.
18. **Disconnect the plug from the power source before making any adjustments, changing accessories, or storing the tool.** Such preventive safety measures reduce the risk of starting the tool accidentally.
19. **Store idle tools out of reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.
20. **Maintain tools with care. Keep cutting tools sharp and clean.** Properly maintained tools, with sharp cutting edges are less likely to bind and are easier to control.
21. **Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tools operation. If damaged, have the tool serviced before using.** Many accidents are caused by poorly maintained tools.
22. **Use only accessories that are recommended by the manufacturer for your model.** Accessories that may be suitable for one tool, may become hazardous when used on another tool.

#### **SERVICE**

23. **Tool service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel could result in a risk of injury.
24. **When servicing a tool, use only identical replacement parts. Follow instructions in the Maintenance section of this manual.** Use of unauthorized parts or failure to follow Maintenance Instructions may create a risk of electric shock or injury.

## ***Specific Safety Rules***

1. Hold tool by insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring or its own cord. Contact with a "live" wire will make exposed metal parts of the tool "live" and shock the operator.
2. Hold the tool firmly.
3. Do not leave the tool running. Operate the tool only when hand-held.
4. This tool has not been waterproofed, so do not use water on the workpiece surface.
5. Ventilate your work area adequately when you perform sanding operations.

**SAVE THESE INSTRUCTIONS.**

# SYMBOLS

The followings show the symbols used for tool.

V ..... volts

A ..... amperes

Hz ..... hertz



..... alternating current

$n_0$  ..... no load speed



..... Class II Construction

/min ..... orbits per minute

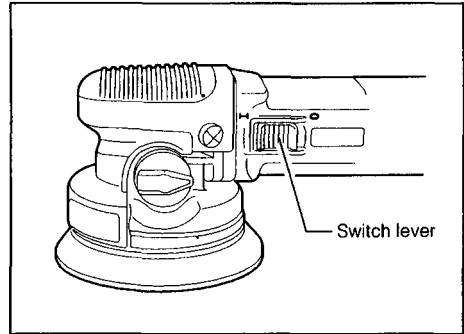
## FUNCTIONAL DESCRIPTION

### Switch action

#### CAUTION:

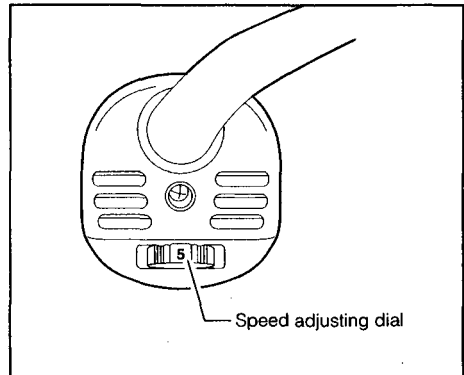
Before plugging in the tool, always check to see that the switch actuates properly and returns to the "OFF" position when the side of the switch lever is depressed.

To start the tool, slide the switch lever toward the "I" position. For continuous operation, press the front of the switch lever to lock it. To stop the tool, press the rear of the switch lever, then slide it toward the "O" position.



### Speed adjusting dial

The rotating speed can be changed by turning the speed adjusting dial to a given number setting from 1 to 5. Higher speed is obtained when the dial is turned in the direction of number 5. And lower speed is obtained when it is turned in the direction of number 1.



Refer to the table below for the relationship between the number settings on the dial, orbits per minute and the pad rotating speed.

Number	Orbits per min.	Oscillation rate per minute	Forcible pad rotating speed per min.
1	1,600	3,200	180
2	2,100	4,200	240
3	3,600	7,200	420
4	5,100	10,200	590
5	5,800	11,600	670

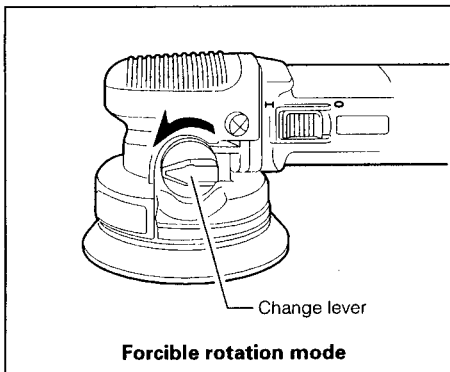
#### CAUTION:

The speed adjusting dial can be turned only as far as 5 and back to 1. Do not force it past 5 or 1, or the speed adjusting function may no longer work.

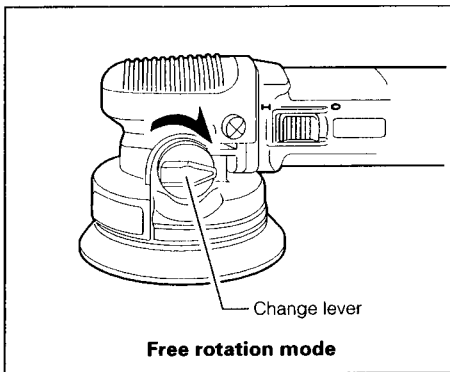
### **Selecting action mode**

Use the change lever to change the rotation mode.

Forcible rotation mode is orbital action plus rotation action of pad for rough sanding and polishing.



Free rotation mode is orbital action of pad for fine sanding.



Rotate the change lever counterclockwise for forcible rotation mode and clockwise for free rotation mode.

## Typical applications for sanding and polishing

### Sanding

Use / Material	Rotation mode Forcible / Free	Speed control setting	Pad
Paintwork: Sanding Repairs (scratches, rust stops) Rough paint stripping	Free Forcible / Free Forcible	1 – 3 2 – 3 4 – 5	Soft Hard Soft
Plastics: Soft plastics (PVC / ABS) Hard plastics (FRP)	Forcible / Free Forcible	1 – 3 1 – 3	Super soft / Soft Soft / Hard
Woods: Softwood Hardwood Veneers	Free Forcible / Free Free	1 – 3 3 – 5 1 – 2	Super soft / Soft Soft Super soft
Metals: Non-ferrous metal (aluminum, copper) Steel Steel, rust removal Hard metal (stainless steel)	Forcible / Free Forcible Forcible Forcible	1 – 3 3 – 5 4 – 5 4 – 5	Soft Soft / Hard Super soft Soft

### Polishing

Applying wax	Forcible	2 – 4	Sponge pad
Removing wax	Forcible	4 – 5	Felt pad
Polishing	Forcible	4 – 5	Wool pad

The above information is intended only as a guide. In each case, the most appropriate sanding disc grain should be determined by preliminary trials.

The tool equipped with electronic function is easy to operate because of the following features.

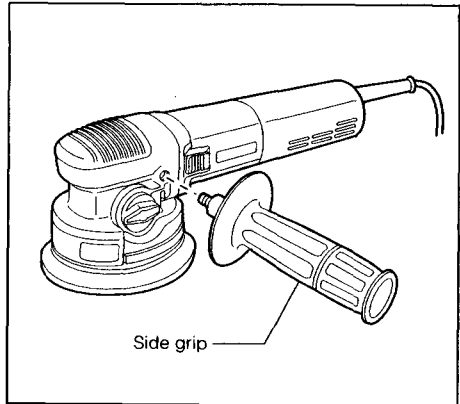
- Electronic speed control for obtaining constant speed  
Possible to get fine finish, because the rotating speed is kept constantly even under the loaded condition.
- Soft start feature  
Safety and soft start because of suppressed starting shock.



## ASSEMBLY

### Installing side grip (optional accessory)

Remove one of the screws which secure the head cover. Screw the side grip on the tool securely. The side grip can be installed on either side of the tool.



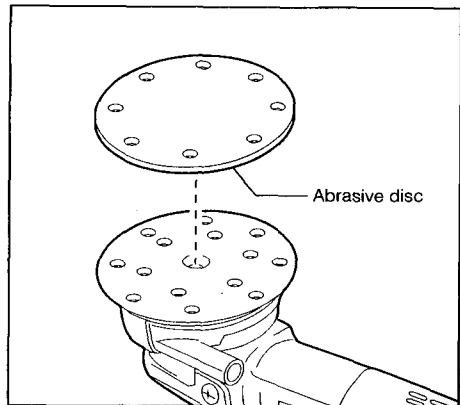
### Installing or removing abrasive disc

#### CAUTION:

- Always be sure that the tool is switched off and unplugged before installing or removing the abrasive disc.
- Always use hook-and-loop system abrasive discs. Never use pressure-sensitive abrasive discs.

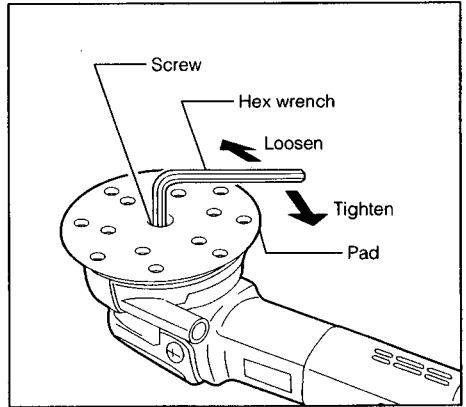
To install the abrasive disc, first remove all dirt or foreign matter from the pad. Then attach the abrasive disc to the pad, using the hook-and-loop system of the abrasive disc and the pad. Be careful to align the holes in the abrasive disc with those in the pad.

To remove the disc from the pad, just pull up from its edge.



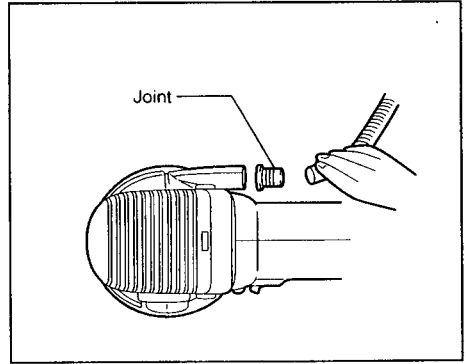
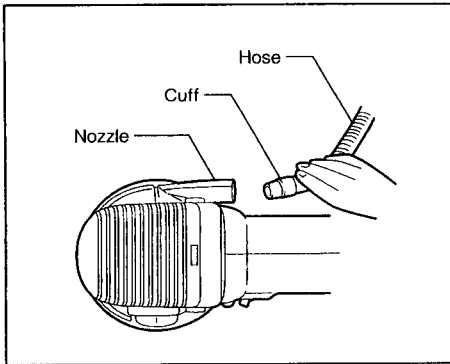
### Changing pad

Makita offers an extensive range of optional super soft, soft and hard pads. Remove the screw counterclockwise from the center of the base with a hex wrench. After changing the pad, tighten the screw clockwise to secure the pad.



### Dust collection (optional accessory)

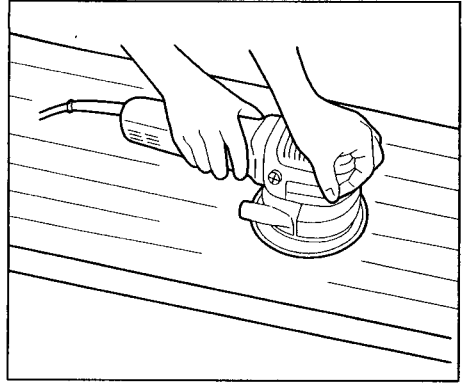
If a Makita hose is used, you can connect the cuff to the nozzle directly. If other hose with an inner diameter of 24 mm (15/16"), attach the joint between the nozzle and the cuff.



## OPERATION

### Sanding operation

Turn the tool on and wait until it attains full speed. Then gently place the tool on the workpiece surface. Keep the pad flush with the workpiece and apply slight pressure on the tool.



#### CAUTION:

- Never switch on the tool when it is in contact with the workpiece surface, causing an injury to operator.
- Never run the tool without the abrasive disc. You may seriously damage the pad.
- Never force the tool. Excessive pressure may decrease the sanding efficiency, damage the abrasive disc or shorten tool life.

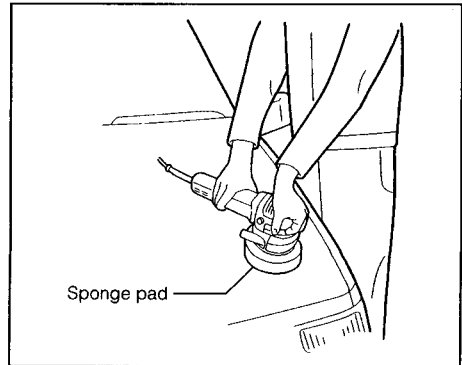
### Polishing operation

#### CAUTION:

- Use only a Makita genuine sponge pad, felt pad or wool pad (optional accessories).
- Always operate the tool at low speed to prevent work surfaces from heating abnormally.
- Never force the tool. Excessive pressure may decrease the polishing efficiency and cause motor overload, resulting in tool malfunction.

### Applying wax

Use an optional sponge pad. Apply wax to the sponge pad or work surface. Run the tool at low speed to smooth out wax.

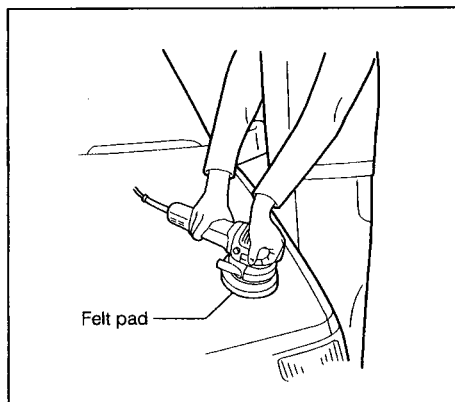


#### NOTE:

- First, wax a not conspicuous portion of the work surface to make sure that the tool will not scratch the surface or result in uneven waxing.

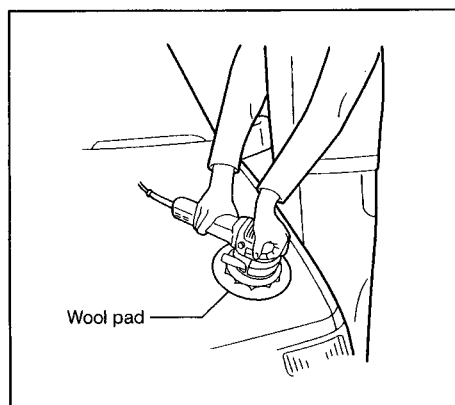
### Removing wax

Use an optional felt pad. Run the tool at low speed to remove wax.



### Polishing

Use an optional wool pad. Run the tool at low speed and apply the wool pad gently to the work surface.



## MAINTENANCE

### CAUTION:

Always be sure that the tool is switched off and unplugged before attempting to perform inspection or maintenance.

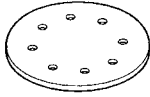
To maintain products SAFETY and RELIABILITY, repairs, any other maintenance or adjustment should be performed by Makita Authorized or Factory Service Centers, always using Makita replacement parts.

# ACCESSORIES

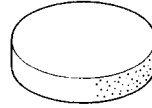
**CAUTION:**

These accessories or attachments are recommended for use with your Makita tool specified in this manual. The use of any other accessories or attachments might present a risk of injury to persons. The accessories or attachments should be used only in the proper and intended manner.

- **Hook-and-loop system abrasive disc**  
(Hook & loop backing and pre-punched holes)

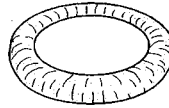


- **Hook-and-loop system sponge pad**



Grit	Qty. per Pkg.	Grit	Qty per Pkg.
# 40	5	# 40	50
# 60		# 60	
# 80		# 80	
# 120		# 120	
# 180		# 180	
# 240		# 240	
# 400		# 400	

- **Hook-and-loop system wool pad**



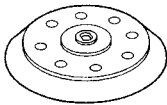
- **Sanding cloth 150**  
(For fine sanding)  
Grit # 100, # 200, # 800



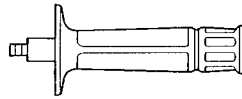
- **Hook-and-loop system felt pad**



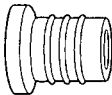
- **Pad 150**  
(Super soft, Soft, Hard)



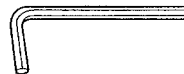
- **Side grip**

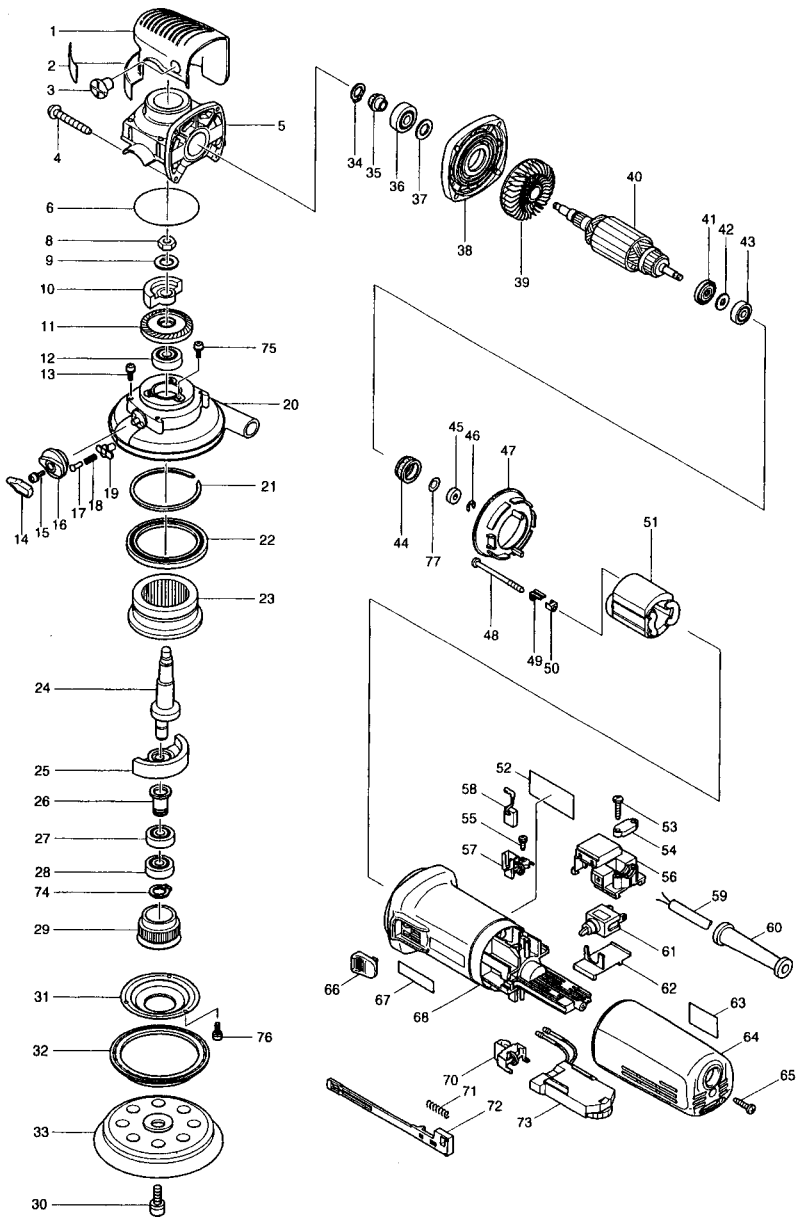


- **Joint**



- **Hex wrench**





Random Orbit Sander Part Description

Item No.	Description	Qty. Use	Item No.	Description	Qty. Used
1	HEAD COVER	1	41	INSULATION WASHER	1
2	INDICATION LABEL	1	42	FLAT WASHER 7	1
3	+ FLAT HEAD SCREW M8X11	2	43	BALL BEARING 627DDW	1
4	TAPPING SCREW 4X30	4	44	LABYRINTH RUBBER RING 22	1
5	GEAR HOUSING COMPLETE	1	45	MAGNET SLEEVE	1
6	O RING 62	1	46	STOP RING E-4	1
8	HEX. NUT M10	1	47	BAFFLE PLATE	1
9	FLAT WASHER 10	1	48	TAPPING SCREW 4X55	2
10	UPPER BALANCE WEIGHT	1	49	RETAINER	2
11	SPIRAL BEVEL GEAR 42	1	50	INSULATION COVER	2
12	BALL BEARING 6201LLB	1	51	FIELD	1
13	PAN HEAD SCREW M4X16	4	52	NAME PLATE	1
14	CAP	1	53	TAPPING SCREW 4X18	2
15	PAN HEAD SCREW M4X12	1	54	STRAIN RELIEF	1
16	KNOB COMPLETE	1	55	TAPPING SCREW PT3X10	4
17	SPRING HOLDER	1	56	SWITCH BLOCK	1
18	COMPRESSION SPRING 4	1	57	BRUSH HOLDER	1
19	HOLDER	1	58	A.C. CARBON BRUSH CB-318	1
20	SKIRT COMPLETE	1	59	POWER SUPPLY CORD	1
21	STOP RING (EXT) WR-55	1	60	CORD GUARD 8	1
22	BALL BEARING 6811LLB	1	61	SWITCH ST115A-40	1
23	INTERNAL GEAR 29	1	62	COVER	1
24	SPINDLE	1	63	INDICATION LABEL	1
25	LOWER BALANCE WEIGHT	1	64	REAR COVER	1
26	SLEEVE	1	65	TAPPING SCREW 4X18	1
27	BALL BEARING 6001DDW	1	66	SWITCH KNOB	1
28	BALL BEARING 6001DDW	1	67	MAKITA LABEL	1
29	SPUR GEAR 26 COMPLETE	1	68	MOTOR HOUSING	1
30	HEX.SOCKET HEAD BOLT M8X14	1	70	BRUSH HOLDER	1
31	BEARING RETAINER 80 COMPLETE	1	71	COMPRESSION SPRING 4	1
32	RUBBER GUARD	1	72	SWITCH LEVER	1
33	PAD 150	1	73	CONTROLLER	1
34	RETAINING RING S-6	1	74	RETAINING RING S-12	1
35	SPIRAL BEVEL GEAR 9	1	75	PAN HEAD SCREW M4X12	3
36	BALL BEARING 6001LLB	1	76	PAN HEAD SCREW M4X12	3
37	FLAT WASHER 12	1	77	WAVE WASHER 6	1
38	GEAR HOUSING COVER	1			
39	FAN 57	1			
40	ARMATURE ASSY (with item 39,41-43)	1			

# WARNING

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known [to the State of California] to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- Lead from lead-based paints,
- Crystalline silica from bricks and cement and other masonry products, and
- Arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

## MAKITA LIMITED ONE YEAR WARRANTY

### Warranty Policy

Every Makita tool is thoroughly inspected and tested before leaving the factory. It is warranted to be free of defects from workmanship and materials for the period of ONE YEAR from the date of original purchase. Should any trouble develop during this one-year period, return the COMPLETE tool, freight prepaid, to one of Makita's Factory or Authorized Service Centers. If inspection shows the trouble is caused by defective workmanship or material, Makita will repair (or at our option, replace) without charge.

This Warranty does not apply where:

- repairs have been made or attempted by others;
- repairs are required because of normal wear and tear;
- The tool has been abused, misused or improperly maintained;
- alterations have been made to the tool.

IN NO EVENT SHALL MAKITA BE LIABLE FOR ANY INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES FROM THE SALE OR USE OF THE PRODUCT. THIS DISCLAIMER APPLIES BOTH DURING AND AFTER THE TERM OF THIS WARRANTY.

MAKITA DISCLAIMS LIABILITY FOR ANY IMPLIED WARRANTIES, INCLUDING IMPLIED WARRANTIES OF "MERCHANTABILITY" AND "FITNESS FOR A SPECIFIC PURPOSE," AFTER THE ONE-YEAR TERM OF THIS WARRANTY.

This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. Some states do not allow limitation on how long an implied warranty lasts, so the above limitation may not apply to you.

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